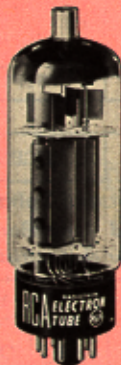
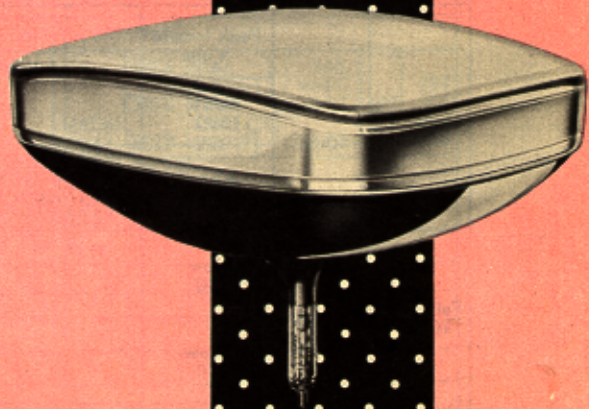


RCA receiving tubes and picture tubes

FOR AM, FM, AND TELEVISION BROADCAST



**CHARACTERISTICS
AND
SOCKET CONNECTIONS
FOR**
Power Amplifiers
Voltage Amplifiers
Oscillators
Rectifiers
Detectors
Converters
Mixers
and TV
Picture Tubes



RADIO CORPORATION OF AMERICA
Electron Tube Division Harrison, N. J.

TRADE MARK(S) REGISTERED
MARCA(S) REGISTRADA(S)

RCA Receiving Tubes

Chart 1. is arranged to permit quick determination of the type designations of (A) RCA picture tubes according to their envelope size, focus method, and deflection method; and (B) all other RCA receiving tubes according to their functions and filament or heater

voltages. Chart 2. starting on page 6 lists characteristics and operating data of all RCA receiving tubes. Chart 3. starting on pages 30 and 31 lists characteristics and operating data of all RCA picture tubes. Both Charts 2. and 3. include RCA discontinued types.

1. RECEIVING TUBE CLASSIFICATION CHART

A—Picture Tubes

PICTURE TUBES						
Black-and-White Types						
	Approx. Envelope Diameter (Inches)		3-15	16-17	19-22	24-27
	Focus Method	Deflection Method				
Directly Viewed	electrostatic	electrostatic	7JP4			
	electrostatic	magnetic	7DP4 8DP4 14HP4 14QP4-A 14RP4 14RP4-A	17AVP4/17ATP4 17AVP4-A/17ATP4-A 17BJP4 17BVP4 17BZP4 17CDP4 17CP4 17HP4/17RP4 17HP4-B/17RP4-C 17LP4/17VP4 17LP4-A/17VP4-B 17TP4	20HP4-A/20MP4 20HP4-D 21AFP4-A 21ALP4 21ALP4-A 21ALP4-B 21ATP4 21ATP4-A 21AVP4/21AUP4 21AVP4-B/21AUP4-B/ 21AVP4-A/21AUP4-A 21BTP4 21CBP4-A 21CEP4 21DFP4 21MP4 21FP4-A 21FP4-C 21YP4 21YP4-A	24AEP4 24AHP4 24DP4-A/ 24YP4
	magnetic	magnetic	10BP4-A 10FP4-A 12KP4-A 12LP4-A 14EP4/14CP4/14BP4	16AP4-A 16DP4-A 16GP4-B 16LP4-A 16RP4/16KP4 16RP4-A/16KP4-A 16TP4 16WP4-A 17BP4-A 17BP4-B 17CP4 17QP4 17QP4-A	19AP4-B 20DP4-A/20CP4-A 20DP4-C/20CP4-D 21ACP4/21BSP4 21AMP4-A 21AP4 21AWP4 21EP4-A 21EP4-B 21ZP4-A 21ZP4-B	24CP4-A 24VP4-A 27MP4
Projection	electrostatic	magnetic	5TP4			
Color Types						
Directly Viewed	electrostatic	magnetic	15GP22		21AXP22 21AXP22-A 21CYP22	

B—Rectifiers, Detectors, Power and Voltage Amplifiers, Converters and Mixers, Electron-Ray Tubes, Gated Amplifiers, and Shunt Voltage Regulators

Types having similar characteristics and the same filament or heater voltage are bracketed.

Filament or Heater Volts		1.25—1.4		2.0—5.0			6.3—117.0		
		Miniature	Other	Octal	Other	Miniature	Miniature	Octal	Other
RECTIFIERS (For rectifiers with amplifier units, see POWER AMPLIFIERS).									
Half-Wave	vacuum	Peak Inverse Volts						6AX4-GT 6W4-GT 12AX4-GTA† 17AX4-GT* 25AX4-GT 25W4-GT	1-v 35Y4 35Z3
		Below 1500					35W4 117Z3	35Z4-GT 35Z5-GT	
Full-Wave	vacuum	Above 1500	1AX2 1V2 1X2-A 1X2-B	1B3-GT 1C3-GT 1B3-GT	3A3 3B2	3A2	6V3-A	6BL4 6BY5-GA 6AU4-GTA 19AU4	
		Below 1500			5Z4 5Y3-GT 5Y4-GT 5V4-G	5AZ4 80 83-V	6X4 12X4	6X5-GT 6AX5-GT	7Y4 7Z4 84/6Z4
	gas	Below 1500							
Cold-Cathode Types OZ4, OZ4-G									
Doubler	vacuum	Below 1500						25Z6-GT 50Y6-GT 50Y7-GT 117Z6-GT	25Z5 50X6
DIODE DETECTORS (For diode detectors with amplifier units, see VOLTAGE AMPLIFIERS and also POWER AMPLIFIERS).									
One Diode			1A3						
Two Diodes						3AL5†	6AL5 12AL5	6H6 12H6	7A6
Three Diodes							6BC7		

† 600-milliamper heater type having controlled warm-up time for series -string TV operation.

* 450-milliamper heater type having controlled warm-up time for series -string TV operation.

RECEIVING TUBE CLASSIFICATION CHART—Cont'd

Types having similar characteristics and the same filament or heater voltage are bracketed.

Filament or Heater Volts		1.25—1.4		2.0—5.0				6.3—117.0		
		Miniature	Other	Octal	Other	Miniature	Miniature	Octal	Other	
POWER AMPLIFIERS with and without Rectifiers, Diode Detectors, and Voltage Amplifiers.										
Triodes	low-mu	single unit				2A3 45		6B4-G		
	high-mu	single unit						6BC4	6AC5-GT	
twin unit								6AQ7-GT 6N7, 6N7-GT		
Beam Tubes	single unit		3Q5-GT* 3LF4*				3BN6† 6BN6 6AQ5 6AQ5-A 6AS5 6BK5 6CU5 6CZ5 6DS5 12AB5§ 12AQ5 12CA5‡ 12CU5‡ 25CA5 5AQ5‡ 5CZ5‡ 12R5‡	6AU5-GT 6AV5-GA 6BC6-GA 6BQ6-GT 6BQ6-GTB/6CU6 6CB5 6CB5-A 6CD6-GA 6DC6-GT 6DQ5 6DQ6-A 6L6 6L6-G 6L6-GB 6V6 6V6-GT 6W6-GT 6Y6-G 12BQ6-GTB/12CU6‡ 12DQ6-A‡ 12L6-GT‡ 12V6-GT 12W6-GT‡ 17BQ6-GTB* 17DQ6-A* 25BQ6-GTB/25CU6 25CD6-GA‡ 25CD6-GB‡ 25L6 25L6-GT 35L6-GT 50C6-G 50L6-GT	7A5 7C5 35A5 50A5	
	with rectifier							70L7-GT 117L7/M7-GT 117P7-GT 117N7-GT		
Pentodes	single unit		1S4 3S4* 3Q4* 3V4*	1A5-GT 1C5-GT 1LB4		47	6CL6 6AK6 6AR5	6AC7 6CG 6F6, 6F6-G, 6F6-GT 6K6-GT	7B5 7AD7 42 43	
	with medium-mu triode							6AD7-G		
Filament or Heater Volts		1.25—1.4		2.0—5.0				6.3—117.0		
		Miniature	Other	Octal	Other	Miniature	Miniature	Octal	Other	
CONVERTERS & MIXERS (For other types used as Mixers, see VOLTAGE AMPLIFIERS).										
Con-verters	pentagrid	1E8† 1L6 1R5	1A7-GT 1LA6 1LC6			3BE6‡ 12AD6° 12BA7	6BE6 6BE6	6SA7 6SA7-GT 12SA7 12SA7-GT 6SB7-Y	6A8, 6A8-G 6A8-GT 12A8-G7	6A7 7B8 7Q7 14Q7
	triode-pentode					5AT8‡ 5CG8‡ 5X8‡ 5U8‡	6AT8, 6AT8-A* 6CG8, 6CG8-A* 6X8 6U8, 6U8-A* 19X8			
	triode-hexode							6K8, 12K8		
	triode-heptode									7J7
	octode									7A8
Mixers	pentagrid							6L7		
ELECTRON-RAY TUBES										
Single	with remote-cutoff triode								6AB5/6N5 6U5	
	with sharp-cutoff triode								6E5	
Twin	without triode							6AF6-G		
Triple	without triode							6AL7-GT		

* Filament arrangement for either 1.4 or 2.8-volt operation.
 § For use in automobile radio receivers operating from 12-volt storage batteries.
 † 600-milliamper heater type having controlled warm-up time for series-string TV operation.

‡ Subminiature type.
 * 450-milliamper heater type having controlled warm-up time for series-string TV operation.
 ° For use in automobile receivers which use transistors in the output stage; with tube and transistor electrode voltages supplied directly from a 12.6-volt storage battery.

RECEIVING TUBE CLASSIFICATION CHART—Cont'd

Types having similar characteristics and the same filament or heater voltage are bracketed.

Filament or Heater Volts		1.25—1.4		2.0—5.0			6.3—117.0				
		Miniature	Other	Octal	Other	Miniature	Miniature	Octal	Other		
VOLTAGE AMPLIFIERS with and without Diode Detectors; TRIODE, TETRODE, AND PENTODE DETECTORS, OSCILLATORS.											
Triodes	medium-mu	single unit		1LE3		27	2AF4-A† 3AF4-A* 2BN4‡	[6AF4, 6AF4-A] 6BN4, 6C4 [6S4, 6S4-A]† 6T4 12B4-A*‡	6AH4-GT [6C5, 6C5-GT] [6J5, 6J5-GT] 12J5-GT	7A4	
		with pentode					5AN8‡ 5AV8‡ 5BR8‡	6AU8‡ 6BH8‡ 6AN8 6CH8 6AZ8 6BA8-A‡ 6BR8 6CU8*	6F7 6AD7-G		
		with tetrode						5CQ8‡	6CQ8*		
		with two diodes							12AE6° [6BF6 12AJ6° [12BF6	6R7 6SR7] 12SR7]	
		twin unit						[4BQ7-A]† 4BS8‡ [4BC8]† 4BZ7‡ 5BK7-A‡ 5BQ7-A* 5J6‡	6BC8 6BK7-A, 6BQ7-A 6BS8 6BZ7] 6BK7-B* 6J6 [6CC7‡ 7AU7*‡ 8CC7* 12AU7-A* 12AV7* 12BH7-A*‡ 19J6	6BL7-GT 6BX7-GT 6C8-G 6F8-G 6SN7-GTB‡ 12AH7-GT 12SN7-GT	7AF7 7F8 7N7 14AF7 14F8
		dual unit■							6CM7‡ 8CM7* 10DE7*‡		
	high-mu	single unit							6AB4 6AM4 6AN4	[6F5, 6F5-GT] [6SF5, 6SF5-GT] 12SF5	7B4
		with diode		1H5-GT 1LH4							
		with two diodes						3AV6‡	6BN8‡ [6AT6 6CN7] [6AQ6 12AT6 [6AV6 12AV6 12BR7* [6SQ7, 6SQ7-GT] 12Q7-GT [12SQ7, 12SQ7-GT]	6Q7, 6Q7-GT 6S7 6SQ7, 6SQ7-GT 12Q7-GT [12SQ7, 12SQ7-GT]	7B6 7C6 7K7 7X7 14B6 75
		with three diodes						5T8‡	6T8 19T8	6S8-GT	
		twin unit							6DT8 [12AX7* 12AT7* 12AZ7* 12DT8 12BZ7*]	6SC7 6SL7-GT 12SC7 12SL7-GT	7F7 14F7
		with rf pentode							6AW8‡, 6AW8-A‡ 8AW8-A*		
Tetrodes	sharp-cutoff	single unit				24-A					
		with triode					5CQ8‡	6CQ8‡			
	power							12K5°			

† Subminiature type.

■ With dissimilar triodes.

‡ 600-milliamper heater type having controlled warm-up time for series-string TV operation.

▲ Heater arranged for either 6.3- or 12.6-volt operation.

● Heater arranged for either 3.0- or 7.0-volt operation.

* 450-milliamper heater type having controlled warm-up time for series-string TV operation.

△ Unit No. 1, μ = 17.5.

Unit No. 2, μ = 6.0.

° For use in automobile receivers which use transistors in the output stage; with tube and transistor electrode voltages supplied directly from a 12.6-volt storage battery.

RECEIVING TUBE CLASSIFICATION CHART—Cont'd

Types having similar characteristics and the same filament or heater voltage are bracketed.

Filament or Heater Volts		1.25—1.4		2.0—5.0			6.3—117.0					
		Miniature	Other	Octal	Other	Miniature	Miniature	Octal	Other			
VOLTAGE AMPLIFIERS with and without Diode Detectors; TRIODE, TETRODE, AND PENTODE DETECTORS, OSCILLATORS.												
Pentodes	remote-cutoff	single unit	1T4	1LG5			6BJ6	[6BD6 12BD6 6BA6 12BA6 12AF6° 12BL6°	6SK7 6SK7-GT 12SK7 6SG7 12SG7 6SS7	[6K7 6K7-GT 12SK7-GT 6AB7 6S7 12K7-GT	78 7A7 7B7 7H7 14A7	6D6 7A7 7B7 7H7 14A7
		with triode										
		with diode	1DN5					12CR6		6SF7 12SF7		6F7
		with two diodes						12F8°		6B8 12C8		7E7 7R7 14R7
	semi-remote-cutoff	single unit					3BZ6‡	6BZ6 6DC6				
		with triode						6AZ8				
	sharp-cutoff	single unit	1AD5† 1L4 1U4	1LC5 1LN5 1N5-GT			3AU6‡ 3BC5‡ 3CB6‡ 3CF6‡ 3DT6‡ 4AU6* 4CB6* 4DT6*	6AG5 6AK5 6BC5 6CB6 6CF6 6DT6 12AW6 12BV7* 12BY7-A*†	6AH6 6AU6 [2AU6 6DE6 6BH6 12AV6	6J7, 6J7-GT, 6W7-G 6SH7 12SH7	6C6 7AG7 7C7 7G7 7L7 7V7 7W7 14C7	
			twin unit				3BU8	6BU8				
		with triode					5AN8‡ 5AV8‡ 5BR8‡	6AN8 6AU8 6CH8 6BH8‡ 6AW8‡, 6AW8-A‡ 6BR8 6CU8* 8AW8-A*				
			with diode	1S5 1U5	1LD5			5AM8‡ 5AN8‡ 5AS8‡	6AM8, 6AM8-A* 6AS8			
	HORIZONTAL AND VERTICAL AMPLIFIERS AND OSCILLATORS (for TV Receivers)											
	Triodes	medium-mu	single unit					6S4, 6S4-A‡ 12B4-A*‡	6AH4-GT			
twin unit							6CG7‡ 7AU7*‡ 8CG7* 12AU7-A* 12BH7-A*‡	6BL7-GT 6BX7-GT 6SN7-GTB‡				
dual unit■							6CM7‡ 8CM7* 10DE7*‡					
Beam Tubes	single unit					5CZ5‡	6CZ5 12R5	6AU5-GT 6AV5-GA 6BC6-G, 6BG6-GA 6BQ6-GT 6BQ6-GTB/6CU6 6CB5 6CB5-A 6CD6-GA 6DQ5 6DQ6-A 6W6-GT 12BQ6-GTB/12CU6‡ 12DQ6-A‡ 17BQ6-GTB* 17DQ6-A* 19BC6-GA 25BQ6-GTB/25CU6 25CD6-GA‡ 25CD6-GB‡				
Pentode	single unit							6K6-GT (Triode connected)				
GATED AMPLIFIERS												
Pentagrid Amplifier						3BY6‡ 3CS6‡	6BY6 6CS6					
SHUNT VOLTAGE REGULATORS												
Beam Triode								6BD4-A 6BK4				

2. RECEIVING TUBE CHARACTERISTICS CHART

In this chart, characteristics of RCA receiving tubes, including discontinued RCA types, are listed in numerical-alphabetical sequence of type designations.

Type	Name	Tube Dimensions	Cathode Type and Rating			Use <small>Values to right give operating conditions and characteristics for indicated typical use</small>	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type
			C.T.	Volts	Amp.												
00-A	Detector Triode	D12a	D.C. F	5.0	0.25	Grid-Leak Detector	45	—	—	—	30000	666	20	—	—	00-A	
01-A	Detector* Amplifier	D12a	D.C. F	5.0	0.25	Class A Amplifier	90	- 4.5 - 9.0	—	2.5 3.0	11000 10000	725 800	8.0	—	—	01-A	
0Y4	Half-Wave Gas Rectifier	B2	Cold	—	—	Rectifier	Max. Peak Inverse Plate Volts, 300 Max. DC Starting Volts, 95			Max. Peak Plate Current, 500 ma. Max. DC Output Current, 75 ma.			—	—	0Y4		
0Z4 0Z4-G	Full-Wave Gas Rectifier	B2 B1a	Cold	—	—	Rectifier	Starting-Supply Voltage per Plate, 300 min. peak volts. Peak Plate Current, 200 max. ma. DC Output Current, 75 max., 30 min. ma. DC Output Voltage, 300 max. volts.			Max. DC Output Ma., 0.5 Max. Peak Heater-Cathode Volts, 140			—	—	0Z4 0Z4-G		
1A3	HF Diode	B0	H	1.4	0.15	Detector Rectifier	Max. Peak Inverse Plate Volts, 330 Max. Peak Plate Ma., 5			Max. DC Output Ma., 0.5 Max. Peak Heater-Cathode Volts, 140			—	—	1A3		
1A4-P	Remote-Cutoff Pentode	D9	D.C. F	2.0	0.06	Amplifier	For other characteristics, refer to Type 1D5-GP.										1A4-P
1A5-GT	Power Amplifier Pentode	C2b	D.C. F	1.4	0.05	Class A Amplifier	85 90	- 4.5 - 4.5	85 90	0.7 0.8	3.5 4.0	300000 300000	800 850	—	25000 25000	0.100 0.115	1A5-GT
1A6	Pentagrid Converter	D9	D.C. F	2.0	0.06	Converter	135 180	{ - 3.0 min. }	67.5 67.5	2.5 2.4	1.2 1.3	400000 500000	Anode-Grid (#2): 180 max. volts, 2.3 ma. Oscillator-Grid (#1) Resistor, 0.2 meg. Conversion Transcond., 300 micromhos.			1A6	
1A7-GT	Pentagrid Converter	C3	D.C. F	1.4	0.05	Converter	90	0	45	0.7	0.6	600000	Anode-Grid (#2): 90 max. volts, 1.2 ma. Oscillator-Grid (#1) Resistor, 0.2 meg. Conversion Transcond., 250 micromhos.			1A7-GT	
1AC5	Power Pentode	A	F	1.25	0.04	Class A Amplifier	30 45 67.5	- 2 - 3 - 4.5	30 45 67.5	0.1 0.2 0.4	0.5 1.0 2.0	200000 170000 150000	450 600 750	5000 4000 25000	0.005 0.015 0.050	1AC5	
1AD5	Sharp-Cutoff Pentode	A	F	1.25	0.04	Class A Amplifier	30 45 67.5	0 0 0	30 45 67.5	0.16 0.35 0.75	0.45 0.9 1.85	700000 700000 700000	430 580 735	—	—	1AD5	
1AX2	Half-Wave Rectifier	B5a	F	1.4	0.65	Pulsed-Rectifier in TV Receivers	Max. Peak Inverse Plate Volts, 25000 Max. Peak Plate Ma., 11			Max. Average Plate Ma., 1			—	—	1AX2		
1B3-GT	Half-Wave Rectifier	D2	F	1.25	0.2	Pulsed-Rectifier in Scanning Systems of TV Receivers	Max. Peak Inverse Plate Volts, 30000 Max. Peak Plate Ma., 17			Max. Average Plate Ma., 2 Max. Frequency of Supply Voltage, 300 Kc			—	—	1B3-GT		
1B4-P	RF Amplifier Pentode	D9	D.C. F	2.0	0.06	Amplifier	For other characteristics, refer to Type 1E5-GP.										1B4-P
1B5/25S	Duplex-Diode Triode	D5	D.C. F	2.0	0.06	Triode Unit as Amplifier	For other characteristics, refer to Type 1H6-G.										1B5/25S
1B7-GT	Pentagrid Converter	C3	D.C. F	1.4	0.10	Converter	90	0	45	1.3	1.5	350000	Anode-Grid (#2): 90 max. volts, 1.6 ma. Oscillator-Grid (#1) Resistor, 0.2 meg. Conversion Transcond., 350 micromhos.			1B7-GT	
1C5-GT	Power Amplifier Pentode	C2b	D.C. F	1.4	0.10	Class A Amplifier	83 90	- 7.0 - 7.5	83 90	1.6 1.6	7.0 7.5	110000 115000	1500 1550	9000 8000	0.20 0.24	1C5-GT	
1C6	Pentagrid Converter	D8	D.C. F	2.0	0.12	Converter	For other characteristics, refer to Type 1C7-G.										1C6
1C7-G	Pentagrid Converter	D8	D.C. F	2.0	0.12	Converter	135 180	- 3.0 - 3.0	67.5 67.5	2.5 2.0	1.3 1.5	60000 70000	Anode-Grid (#2): 180 max. volts, 4.0 ma. Oscillator-Grid (#1) Resistor, 0.2 meg. Conversion Transcond., 325 micromhos.			1C7-G	
1D5-GP	Remote-Cutoff Pentode	D8	D.C. F	2.0	0.06	Class A Amplifier	90 180	{ - 3.0 min. }	67.5 67.5	0.9 0.8	2.5 2.3	600000 1.0	720 750	—	—	1D5-GP	
1D5-GT	Remote-Cutoff Triode	D8	D.C. F	2.0	0.06	Class A Amplifier	180	- 3.0	67.5	0.7	2.2	600000	650	—	—	1D5-GT	
1D7-G	Pentagrid Converter	D8	D.C. F	2.0	0.06	Converter	For other characteristics, refer to Type 1A6.										1D7-G
1D8-GT	Diode-Triode-Pentode	C2b	D.C. F	1.4	0.10	Pentode Unit as Class A Amplifier	45 90	- 4.5 - 9.0	45 90	0.3 1.0	1.6 5.0	300000 200000	650 925	20000 12000	0.035 0.200	1D8-GT	
						Triode Unit as Class A Amplifier	45 90	0 0	—	0.3 1.1	0.3 4.3500	77000 43500	325 575	25 25	—	—	
1DN5	Diode Remote-Cutoff Pentode	B0	F	1.4	0.5	Triode Unit as Class A Amplifier	67.5	0	67.5	0.55	2.1	600000	630	—	—	1DN5	
1E5-GP	RF Amplifier Pentode	D8	D.C. F	2.0	0.06	Class A Amplifier	90 180	- 3.0 - 3.0	67.5 67.5	0.7 0.6	1.6 1.7	1.0 1.3	600 650	—	—	1E5-GP	
1E7-GT	Twin-Pentode Power Amplifier	C2b	D.C. F	2.0	0.24	Class A Amplifier	135	- 7.5	135	—	—	—	Power Output is for one tube at stated plate-to-plate load.		24000	0.575	1E7-GT
1E8	Pentagrid Converter	A	F	1.25	0.04	Converter	30 45 67.5	0 0 0	30 45 67.5	0.8 1.1 1.5	0.6 0.3 1.0	300000 400000 400000	Oscillator Grid (#1) Resistor, 0.1 meg. Conversion Transcond., 150 micromhos.			1E8	
1F4	Power Amplifier Pentode	D12a	D.C. F	2.0	0.12	Amplifier	For other characteristics, refer to Type 1F5-G.										1F4
1F5-G	Power Amplifier Pentode	D11b	D.C. F	2.0	0.12	Class A Amplifier	90 135	- 3.0 - 4.5	90 135	1.1 2.4	4.0 8.0	240000 200000	1400 1700	20000 16000	0.11 0.31	1F5-G	
1F6	Duplex-Diode Pentode	D8	D.C. F	2.0	0.06	Pentode Unit as Amplifier	For other characteristics, refer to Type 1F7-G.										1F6
1F7-G	Duplex-Diode Pentode	D8	D.C. F	2.0	0.06	Pentode Unit as RF Amplifier	180	- 1.5	67.5	0.7	2.2	1.0	650	—	—	1F7-G	
						Pentode Unit as AF Amplifier	135	- 2.0	—	—	—	—	—	—	—	—	
1G3-GT/ 1B3-GT	Half-Wave Rectifier	C16	F	1.25	0.2	Pulsed-Rectifier in TV Receivers	Max. Peak Inverse Plate Volts, 25000 (Abs.) Max. Peak Plate Ma., 50			Max. Average Plate Ma., 0.5			—	—	1G3-GT/ 1B3-GT		
						HV Rectifier in RF Power Supplies	Max. Peak Inverse Plate Volts, 33000 (Abs.) Max. Peak Plate Ma., 30			Max. Average Plate Ma., 1.0 Frequency Range of Supply Voltage, 1.5 to 100 Kc			—	—	1G3-GT/ 1B3-GT		
1G4-GT	Medium-Mu Triode	C2b	D.C. F	1.4	0.05	Class A Amplifier	90	- 6.0	—	—	2.3	10700	825	8.8	—	1G4-GT	
1G5-G	Power Amplifier Pentode	D11b	D.C. F	2.0	0.12	Class A Amplifier	90 135	- 6.0 - 13.5	90 135	2.5 2.5	8.5 8.7	133000 160000	1500 1550	8500 9000	0.25 0.55	1G5-G	
1G6-GT	Twin-Triode Amplifier	C2b	D.C. F	1.4	0.10	Class B Amplifier	90	0	—	—	—	—	Power Output is for one tube at stated plate-to-plate load.		12000	0.350	1G6-GT
1H4-G	Detector* Amplifier	D3	D.C. F	2.0	0.06	Class A Amplifier	90 135 180	- 4.5 - 9.0 - 13.5	—	—	—	2.5 3.0 3.1	11000 10300 10300	850 900 900	9.3 9.3 9.3	—	1H4-G
						Class B Amplifier	157.5	- 15.0	—	—	1.0	—	—	—	8000	2.1	—
1H5-GT	Diode High-Mu Triode	C3	D.C. F	1.4	0.05	Triode Unit as Class A Amplifier	90	0	—	—	0.15	240000	275	65	—	—	1H5-GT
1H6-G	Duplex-Diode Triode	D3	D.C. F	2.0	0.06	Triode Unit as Class A Amplifier	135	- 3.0	—	—	0.8	35000	575	20	—	—	1H6-G
1J5-G	Power Pentode	D11b	D.C. F	2.0	0.12	Class A Amplifier	135	- 16.5	135	2.0	7.0	105000	950	—	13500	0.45	1J5-G
1J6-G 1J6-GT	Twin-Triode Amplifiers	C10	D.C. F	2.0	0.24	Class B Amplifier	135 135	0 - 3.0	—	—	—	—	Power Output is for one tube at stated plate-to-plate load.		10000 10000	2.1 1.5	1J6-G 1J6-GT
1L4	RF Amplifier Pentode	B0	D.C. F	1.4	0.05	Class A Amplifier	90	0	67.5	1.2	2.9	600000 260000	925 1025	—	—	1L4	
1L6	Pentagrid Converter	B0	D.C. F	1.4	0.05	Converter	90	0	45	0.6	0.5	650000	Anode-Grid (#2): 90 max. volts, 1.2 ma. Oscillator-Grid (#1) Resistor, 0.2 meg. Conversion Transcond., 300 micromhos.			1L6	
1LA4	Power Amplifier Pentode	B5	D.C. F	1.4	0.05	Amplifier	For other characteristics, refer to Type 1A5-GT.										1LA4

For data on RCA Picture Tubes see pages 30 through 35.

Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
1LA6	Pentagrid Converter	B5	D.C. F	1.4	0.05	Converter	90	0	45	0.6	0.55	75000	Anode-Grid (#2): 90 max. volts, 1.2 ma. Oscillator Grid (#1) Resistor, 0.2 meg. Conversion Transcond., 250 micromhos.				1LA6
1LB4	Power Amplifier Pentode	B5	D.C. F	1.4	0.05	Class A Amplifier	For other characteristics, refer to Pentode Unit of Type 1D8-GT.										1LB4
1LC5	Sharp-Cutoff Pentode	B5	D.C. F	1.4	0.05	Class A Amplifier	45 90	0	45	0.35 0.30	1.10 1.15	70000 1.0	750 775				1LC5
1LC6	Pentagrid Converter	B5	D.C. F	1.4	0.05	Converter	45 90	0	35	0.75 0.70	0.70 0.75	300000 650000	Anode-Grid (#2): 50 max. volts, 1.4 ma. Oscillator-Grid (#1) Resistor, 0.2 meg. Conversion Transcond., 275 micromhos.				1LC6
1LD5	Diode-Pentode	B5	D.C. F	1.4	0.05	Pentode Unit as Class A Amplifier	Plate Supply, 90 v applied through 1 meg. resistor. Screen Supply, 90 v applied through 5.6 meg. resistor. Grid Bias, 0 v, Grid Resistor, 10 megohms. Voltage Gain, 101 approx.										1LD5
1LE3	Medium-Mu Triode	B5	D.C. F	1.4	0.05	Class A Amplifier	90 90	0 -3			4.5 1.4	11200 19000	1300 760	14.5 14.5			1LE3
1LG5	Remote-Cutoff Pentode	B5	D.C. F	1.4	0.05	Class A Amplifier	90 90	0 -1.5	45 90	0.4 0.9	1.7 3.7	1.0 500000	800 1150				1LG5
1LH4	Diode High-Mu Triode	B5	D.C. F	1.4	0.05	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 1H5-GT.										1LH4

Four vertical rules before or after type No. = Subminiature type.
 Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.
 Two vertical rules before or after type No. = Metal type.
 One vertical rule before or after type No. = GT or other larger glass type.
 Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see pages 34 and 35.

Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/2 (approx.) of filament voltage.

Power output is for two tubes at stated plate-to-plate load.

For two tubes.

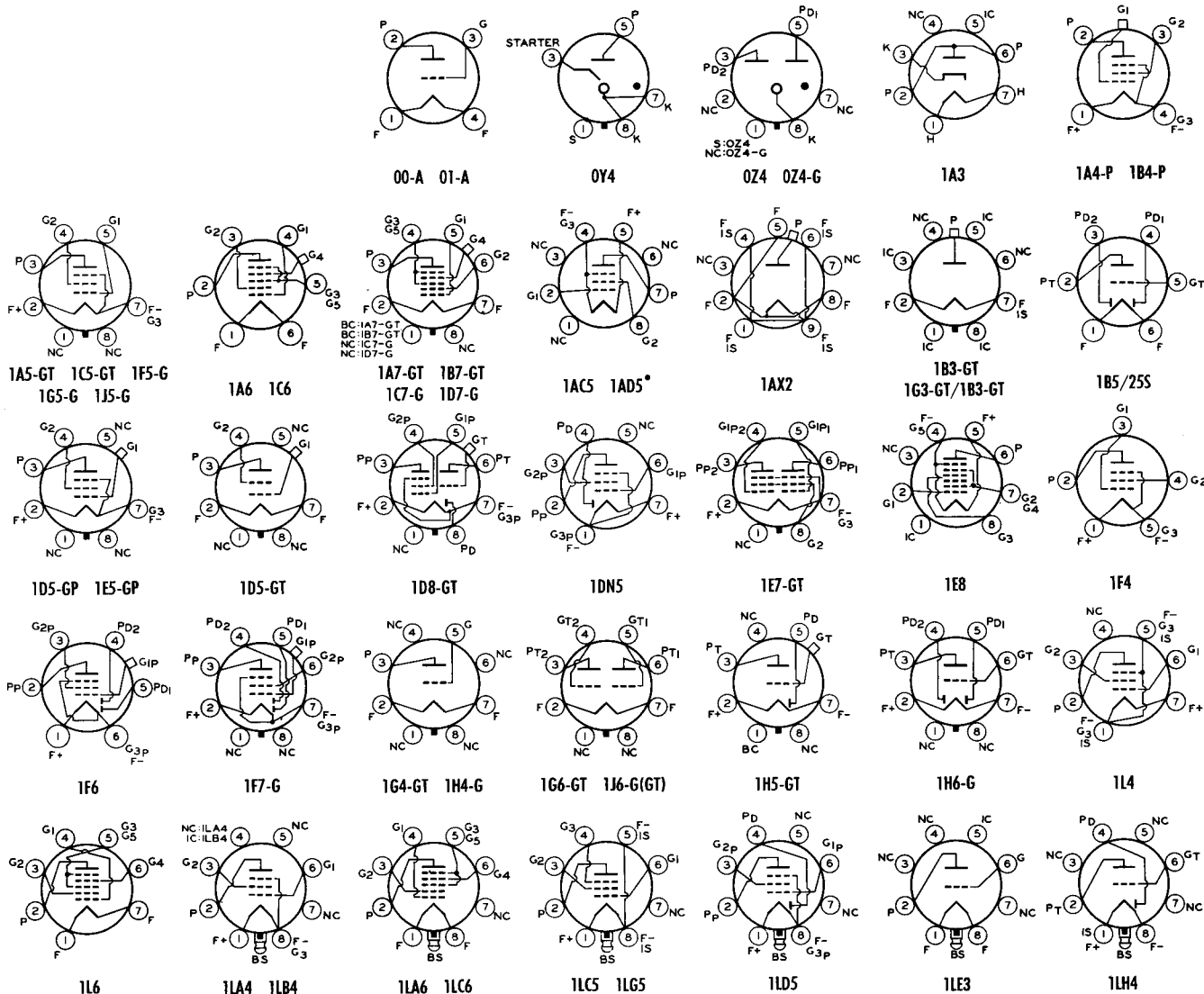
Megohms.

Obtained preferably by using 70000-ohm voltage-dropping resistor in series with a 90-volt supply.

Supply voltage applied through 20000-ohm voltage-dropping resistor.

For Grid-leak Detection—plate volts, 45; grid return to + filament or to cathode.

▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.
 ■ Grids # 3 and # 5 are screen. Grid # 4 is signal-input control grid.
 ** For grid of following tube.
 ✕ Applied through plate resistor of 250000 ohms.
 • 50000 ohms.



Pin No. 4 includes an internal shield.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C.T.	Volts	Amp.												
1LN5	Sharp-Cutoff Pentode	B5	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.35	1.6	1.1§	800	—	—	—	1LN5
1N5-GT	Sharp-Cutoff Pentode	C3	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.3	1.2	1.5§	750	—	—	—	1N5-GT
1N6-G	Diode-Power Amplifier Pentode	D1	D.C. F	1.4	0.05	Pentode Unit as Class A Amplifier	90	- 4.5	90	0.7	3.4	300000	800	—	25000	0.1	1N6-G
1P5-GT	Remote-Cutoff Pentode	C3	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.7	2.3	800000	750	—	—	—	1P5-GT
1Q5-GT	Beam Power Tube	C2b	D.C. F	1.4	0.1	Class A Amplifier	90	- 4.5	90	1.3	9.5	90000	2200	—	8000	0.27	1Q5-GT
1R5	Beam Power Tube Converter	B0	D.C. F	1.4	0.05	Converter	45 90	0 67.5	45 3.2	1.9 1.6	0.7 3.6	600000 600000	Grid #1 Resistor, 100000 ohms. Conversion Transcond., 300 μ mhos.	—	—	—	1R5
1S4	Power Amplifier Pentode	B0	D.C. F	1.4	0.1	Class A Amplifier	45 90	- 4.5 - 7.0	45 67.5	0.8 1.4	3.8 7.4	100000 100000	1250 1575	—	8000 8000	0.065 0.27	1S4
1S5	Diode-Pentode	B0	D.C. F	1.4	0.05	Pentode Unit as AF Amplifier	Plate Supply, 90 v applied through 1 meg. resistor. Screen Supply, 90 v applied through 3.1 meg. resistor. Grid Bias, 0 volts. Grid Resistor, 10 megohms. Voltage Gain, 66 approx.										1S5
1T4	Remote-Cutoff Pentode	B0	D.C. F	1.4	0.05	Class A Amplifier	45 90	0 67.5	45 1.4	0.7 3.5	1.7 3.5	350000 500000	700 900	—	—	—	1T4
1T5-GT	Beam Power Tube	C2b	D.C. F	1.4	0.05	Class A Amplifier	90	- 6.0	90	0.8	6.5	250000	1150	—	14000	0.17	1T5-GT
1T6	Diode-Pentode	A	F	1.25	0.04	Pentode Unit as Class A Amplifier	30 45 67.5	0 0 0	30 45 67.5	0.10 0.21 0.4	0.33 0.75 1.6	500000 500000 400000	330 475 600	—	—	—	1T6
1U4	Sharp-Cutoff Pentode	B0	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.50	1.0	1.0§	900	—	—	—	1U4
1U5	Diode-Pentode	B0	D.C. F	1.4	0.05	Pentode Unit as Class A Amplifier	Plate Supply, 90 volts applied through 1 meg. resistor. Screen Supply, 90 volts applied through 3.1 meg. resistor. Grid Bias, 0 volts. Grid Resistor, 10 megohms. Voltage Gain, 66 approx.										1U5
1-v	Half-Wave Rectifier	D5	H	6.3	0.3	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 325 Min. Total Effective Plate-Supply Impedance: Up to 117 volts, 0 ohms; at 150 volts, 30 ohms; at 325 volts, 75 ohms.										1-v
1V2	Half-Wave Rectifier	B0a	F	0.625	0.3	Pulsed Rectifier	Max. Peak Inverse Plate Volts, 7500					Max. Average Plate Ma., 0.5					1V2
1X2-A	Half-Wave Rectifier	B4	F	1.25	0.2	Pulsed-Rectifier in Scanning Systems of TV Receivers	Max. Peak Inverse Plate Volts, 18000					Max. Average Plate Ma., 1					1X2-A
1X2-B	Half-Wave Rectifier	B4	F	1.25	0.2	Pulsed-Rectifier in Scanning Systems of TV Receivers	Max. Peak Inverse Plate Volts, 22000 (Absolute Value)										1X2-B
2A3	Power Amplifier Triode	E3	F	2.5	2.5	Class A Amplifier	250	-45.0	—	—	60.0	800	5250	4.2	2500	3.5	2A3
2A4-G	Glow-Discharge Triode	D3	D.C. F	2.5	2.5	Relay Service	Max. Peak Inverse Anode Volts, 200					Max. Peak Anode Current, 1.25 ampere					2A4-G
2A5	Power Amplifier Pentode	D12a	H	2.5	1.75	Amplifier	For other characteristics, refer to Type 6F6-G.										2A5
2A6	Duplex-Diode High-Mu Triode	D9	H	2.5	0.8	Triode Unit as Amplifier	For other characteristics, refer to Type 6SQ7.										2A6
2A7	Pentagrid Converter	D9	H	2.5	0.8	Converter	For other characteristics, refer to Type 6A8.										2A7
2AF4-A	Medium-Mu Triode	B0	H	2.35	0.6	Class A Amplifier	80 100	Cath. Bias Res., 150 ohms	—	—	16 20	2270 2130	6600 7500	15 16	—	—	2AF4-A
2B7	Duplex-Diode Pentode	D9	H	2.5	0.8	Pentode Unit as Amplifier	For other characteristics, refer to Type 6B8-G.										2B7
2BN4	Medium-Mu Triode	B0	H	2.3	0.6	Class A Amplifier	150	Cath. Bias	—	—	9	6300	6800	43	Cath. Bias Res., 220 ohms	—	2BN4
2E5	Electron-Ray Tube	D5	H	2.5	0.8	Visual Indicator	For other characteristics, refer to Type 6E5.										2E5
3A2	Half-Wave Rectifier	B4	H	3.15	0.22	Pulsed-Rectifier in Scanning Systems of TV Receivers	Max. Peak Inverse Plate Volts, 18000					Max. Average Plate Ma., 1.5					3A2
3A3	Half-Wave Rectifier	D2	H	3.15	0.22	Pulsed-Rectifier in Scanning Systems of TV Receivers	Max. Peak Inverse Plate Volts, 30000					Max. Average Plate Ma., 1.5					3A3
3A8-GT	Diode-Triode RF Amplifier Pentode	C6	D.C. F	1.4 2.8	0.1 0.05	Triode Unit as Class A Amplifier	90	0	—	—	0.2	200000	325	65	—	—	3A8-GT
3AF4-A	Medium-Mu Triode	A1	H	3.2	0.45	Class A Amplifier	100	Cathode Bias Res., 150 ohms	—	—	16 20	2270 2130	6600 7500	15 16	—	—	3AF4-A
3AL5	Twin Diode	A1	H	3.15	0.6	Detector Rectifier	Max. Peak Inverse Volts, 330					Max. DC Output Ma. per Plate, 9					3AL5
3AU6	Sharp-Cutoff Pentode	B0	H	3.15	0.6	Class A Amplifier	100 250	Cath. Bias	100 150	2.1 4.3	5.0 10.6	500000 1.0§	3900 5200	15 —	150 ohms Cath. Bias Res., 68 ohms	—	3AU6
3AV6	Twin Diode High-Mu Triode	B0	H	3.15	0.6	Triode Unit as Class A Amplifier	100 250	- 1.0 - 2.0	—	—	0.5 1.2	80000 62500	1250 1600	100 —	—	—	3AV6
3B2	Half-Wave Rectifier	E1a	H	3.15	0.22	Pulsed Rectifier in TV Service	Max. DC Inverse Plate Volts, 25000					Max. Total DC and Peak Inverse Plate Volts, 35000 (Absolute)					3B2
3BC5	Sharp-Cutoff Pentode	B0	H	3.15	0.6	Class A Amplifier	250	Cath. Bias	150	2.1	7.5	800000	5700	—	Cath. Bias Res., 180 ohms	—	3BC5
3BN6	Beam Tube	B1	H	3.15	0.6	Limiter and Discriminator Service	Max. DC Plate Volts, 300					Max. Positive-Peak-Grid-No. 1 Volts, 55					3BN6
3BU8	Sharp-Cutoff Twin Pentode	B3	H	3.15	0.6	Class A Amplifier With Both Sections Operating	100 100	— —	67.5 67.5	6.5 3.3	— 2.2	— —	— —	Grid-No. 3 Volts, each section, -10	—	—	3BU8
3BY6	Pentagrid Amplifier	B0	H	3.15	0.6	Sync Separator and Sync Clipper	10	0	25	3.5	1.4	—	—	Grid-No. 3 Volts, 0	—	—	3BY6
3BZ6	Semiremote-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	200	Cath. Bias	150	2.6	11	0.6§	6100	—	Cath. Bias Res., 180 ohms	—	3BZ6
3CB6	Sharp-Cutoff Pentode	B0	H	3.15	0.6	Class A Amplifier	200	Cath. Bias	150	2.8	9.5	600000	6200	—	Cath. Bias Res., 180 ohms	—	3CB6
3CF6	Sharp-Cutoff Pentode	B0	H	3.15	0.6	Class A Amplifier	200	- 6.5	150	2.8	9.5	600000	6200	—	Cath. Bias Res., 180 ohms	—	3CF6
3CS6	Pentagrid Amplifier	B0	H	3.15	0.6	Sync Separator and Sync Clipper	10	—	30	4.5	2	—	—	Grid-No. 3 Volts, 0	—	—	3CS6
3DT6	Sharp-Cutoff Pentode	B0	H	3.15	0.6	Class A Amplifier	150	Cath. Bias	100	2.1	1.1	150000	615	—	Cath. Bias Res., 560 ohms	—	3DT6
3LF4	Beam Power Tube	B5	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	For other characteristics, refer to Type 3Q5-GT.										3LF4
3Q4	Power Amplifier Pentode	B0	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	For other characteristics, refer to Type 3V4										3Q4
3Q5-GT	Beam Power Tube	C2b	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	110 110	- 6.6 - 6.6	110 110	1.4 1.1	10.0 8.5	100000 110000	2200 2000	—	8000 8000	0.40 0.33	3Q5-GT

For data on RCA Picture Tubes see pages 30 through 35.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) umhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
3S4	Power Amplifier Pentode	B0	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	90 90	- 7 - 7	67.5 67.5	1.4 1.1	7.4 6.1	100000 100000	1575 1425	—	8000 8000	0.27 0.235	3S4
3V4	Power Amplifier Pentode	B0	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	90 90	- 4.5 - 4.5	90 90	2.1 1.7	9.5 7.7	100000 120000	2150 2000	—	10000 10000	0.27 0.24	3V4
4AU6	Sharp-Cutoff Pentode	B0	He	4.2	0.45	Class A Amplifier	100 250	Cath. Bias	100 150	2.1 4.3	5 10.6	50000 1Ω	3900 5200	Cath. Bias Res., Cath. Bias Res.,	150 ohms 68 ohms	—	4AU6
4BC8	Medium-Mu Twin-Triode	B0a	He	4.2	0.6	Each Unit as Class A Amplifier	150	Cath. Res.,	220 ohms	—	10	—	6200	35	—	—	4BC8
4BQ7-A	Medium-Mu Twin-Triode	B0a	He	4.2	0.6	Each Unit as Class A Amplifier	150	Cathode Bias Res.,	220 ohms	—	9.0	6100	6400	39	Cutoff Volts, -10	—	4BQ7-A

Four vertical rules before or after type No. = Subminiature type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see pages 34 and 35.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/2 (approx.) of filament voltage.

† Power output is for two tubes at stated plate-to-plate load.

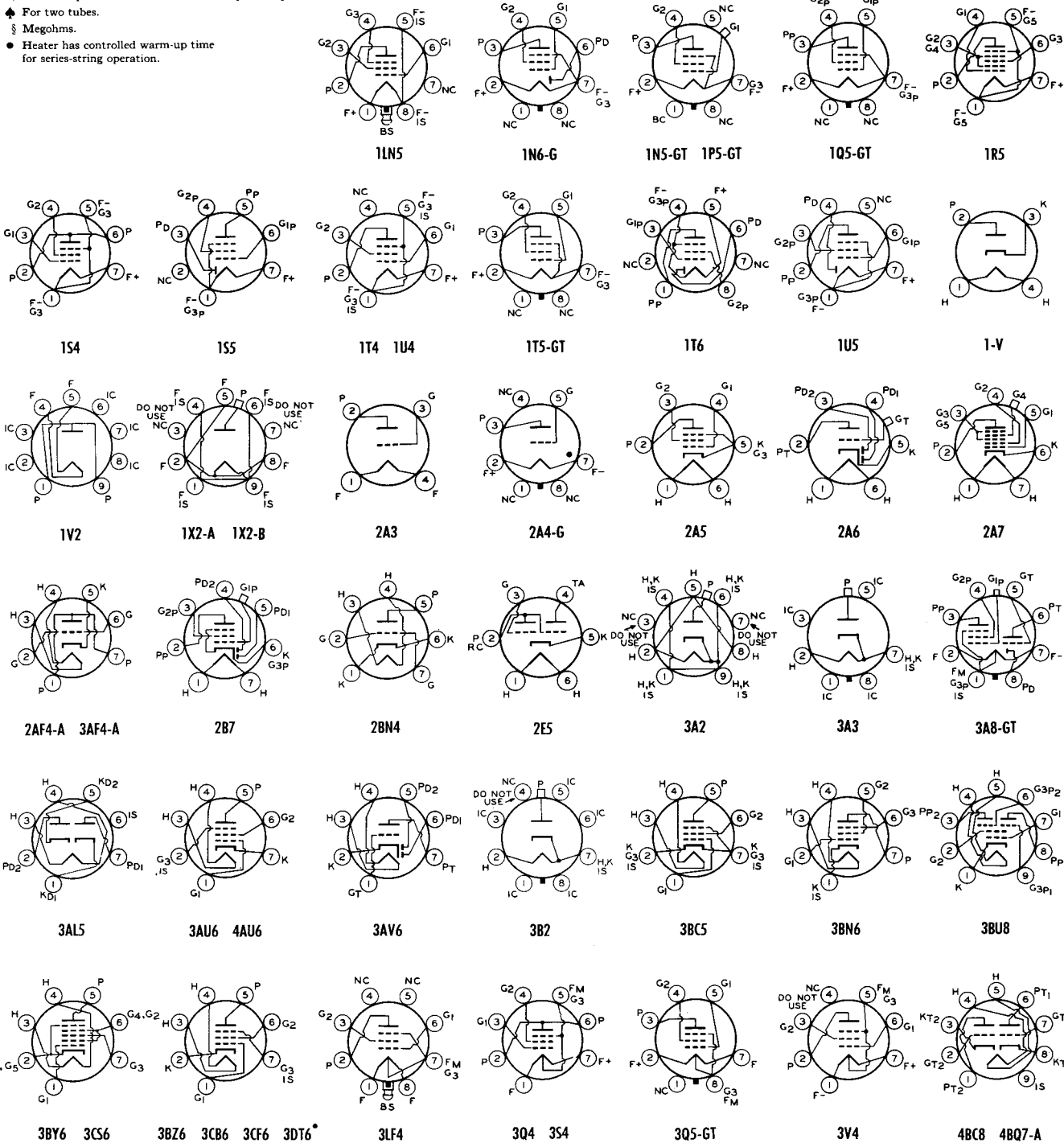
♣ For two tubes.

§ Megohms.

• Heater has controlled warm-up time for series-string operation.

▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.

Note 1: Subscript 1 on class of amplifier service (as AB₁) indicates that grid current does not flow during any part of input cycle.



• IS is connected to pin No. 2 instead of pin No. 7.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load (or Stated Power Output) Ohms	Power Output Watts	RCA Type
			C.T.	Volts	Imp.												
4BS8	Medium-Mu Twin Triode	80a	H	4.2	0.6	Cascade Amplifier	250	-1	—	—	16	10000	—	—	—	—	4BS8
						Each Unit as Class A Amplifier	150	Cath. Bias	—	—	10	5000	7200	36	Cath. Bias Res., 220 ohms		
4BZ7	Medium-Mu Twin-Triode Sharp-Cutoff Pentode	80a	H	4.2	0.6	Each Unit as Class A Amplifier	150	—	—	—	10	5600	6800	38	Cutoff Volts, -11	4BZ7	
4CB6	Sharp-Cutoff Pentode	80	H	4.2	0.45	Class A Amplifier	200	Cath. Bias	150	2.8	9.5	600000	6200	—	Cath. Bias Res., 180 ohms	4CB6	
						Class A Amplifier	150	Cath. Bias	100	2.1	1.1	150000	515	Cath. Bias Res., 560 ohms			
4DT6	Sharp-Cutoff Pentode	80	H	4.2	0.45	FM Detector	250	Cath. Bias	100	5.5	0.22	Grid-No. 3 Volts, -6; Cath. Res., 560 ohms	—	—	—	4DT6	
5AM8	Diode—Sharp-Cutoff Pentode	80a	H	4.7	0.6	Diode Unit	—	—	—	—	—	—	—	—	—	5AM8	
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.7	11.5	7000	—	Cath. Bias Res., 120 ohms			
5AN8	Medium-Mu Triode—Sharp-Cutoff Pentode	80a	H	4.7	0.6	Triode Unit as Class A Amplifier	200	-6	—	—	13	5750	3300	19	—	5AN8	
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	—	Cath. Bias Res., 180 ohms		
5AQ5	Beam Power Tube	81	H	4.7	0.6	Single Tube	180	-8.5	180	3.0	29.0	58000	3700	—	5500	2.0	5AQ5
						Class A Amplifier	250	-12.5	250	4.5	45.0	52000	4100	—	5000	4.5	
5AS4 5AS4-A	Full-Wave Rectifiers	E3a D6	H	4.7	3.0	With Capacitive-Input Filter	—	—	—	—	—	—	—	—	—	—	5AS4 5AS4-A
						With Inductive-Input Filter	—	—	—	—	—	—	—	—	—	—	
5AS8	Diode—Sharp-Cutoff Pentode	80a	H	4.7	0.6	Diode Unit	—	—	—	—	—	—	—	—	—	5AS8	
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	3.0	9.5	300000	6200	—	Cath. Bias Res., 180 ohms		
5AT8	Triode—Pentode Converter	80a	H	4.7	0.45	Triode Unit as 250-Mc. Oscillator	150	—	—	—	—	—	—	—	—	5AT8	
						Pentode Unit as Mixer	150	—	—	—	—	—	—	—	—		—
5AV8	Medium-Mu Triode Sharp-Cutoff Pentode	80a	H	4.7	0.6	Triode Unit as Class A Amplifier	200	-6	—	—	13	5750	3300	19	—	5AV8	
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	—	Cath. Bias Res., 180 ohms		
5AZ4	Full-Wave Rectifier	C2a	F	5.0	2.0	—	—	—	—	—	—	—	—	—	—	5AZ4	
5BK7-A	Medium-Mu Twin Triode	80a	H	4.7	0.6	Each Unit as Class A Amplifier	150	—	—	—	18	4600	9300	43	Cutoff Volts, -11	5BK7-A	
						Each Unit as Class A Amplifier	150	Cath. Bias Res., 220 ohms	—	—	9	6100	6400	39	Cutoff Volts, -10		
5BQ7-A	Medium-Mu Twin Triode	80a	H	4.7	0.45	Each Unit as Class A Amplifier	150	—	—	—	18	5000	8500	40	Cath. Bias Res., 56 ohms	5BQ7-A	
						Each Unit as Class A Amplifier	250	Cath. Bias	110	3.5	10	400000	5200	—	Cath. Bias Res., 68 ohms		
5BR8	Medium-Mu Triode Sharp-Cutoff Pentode	80a	H	4.7	0.6	Triode Unit as Class A Amplifier	250	Cath. Bias	110	3.5	10	400000	5200	—	Cath. Bias Res., 68 ohms	5BR8	
						Triode Unit as 250-Mc Oscillator	150	—	—	—	—	—	—	—	—		—
5CG8	Triode Pentode Converter	80a	H	4.7	0.6	Triode Unit as Mixer	150	—	—	—	—	—	—	—	—	5CG8	
						Triode Unit as Class A Amplifier	100	Cath. Bias	—	—	8.5	6900	5800	40	Cath. Bias Res., 190 ohms		
5CQ8	Medium-Mu Triode Sharp-Cutoff Tetrode	80a	H	4.7	0.6	Triode Unit as Class A Amplifier	250	Cath. Bias	150	1.6	7.7	750000	4600	—	Cath. Bias Res., 200 ohms	5CQ8	
						Tetrode Unit as Class A Amplifier	125	Cath. Bias	—	—	15	5000	8000	40	Cath. Bias Res., 56 ohms		
5CZ5	Beam Power Tube	83	H	4.7	0.6	Vertical Deflection Amplifier in TV Receivers	—	—	—	—	—	—	—	—	—	5CZ5	
						Class A Amplifier	250	-14	250	4.6	46	73000	4800	—	5000		5.4
5J6	Medium-Mu Twin-Triode	80	H	4.7	0.6	Each Unit as Class A Amplifier	100	—	—	—	8.5	7100	5300	38	—	5J6	
						Push-Pull Class AB Amplifier	150	-10	—	—	30	—	—	—	—		3.5
5T4	Full-Wave Rectifier	D7	F	5.0	2.0	With Capacitive-Input Filter	—	—	—	—	—	—	—	—	—	5T4	
						With Inductive-Input Filter	—	—	—	—	—	—	—	—	—		—
5T8	Triple Diode High-Mu Triode	80a	H	4.7	0.6	Triode Unit as Class A Amplifier	100	-1	—	—	0.8	5400	1300	70	—	5T8	
						Triode Unit as Class A Amplifier	250	-3	—	—	1	58000	1200	—	—		
5U4-G	Full-Wave Rectifier	E2	F	5.0	3.0	With Capacitive-Input Filter	—	—	—	—	—	—	—	—	—	5U4-G	
						With Inductive-Input Filter	—	—	—	—	—	—	—	—	—		—
5U4-GB	Full-Wave Rectifier	D12b	H	5.0	3.0	With Capacitive-Input Filter	—	—	—	—	—	—	—	—	—	5U4-GB	
						With Inductive-Input Filter	—	—	—	—	—	—	—	—	—		—
5U8	Triode—Pentode Converter	80a	H	4.7	0.6	Triode Unit as Class A Amplifier	150	Cath. Bias	—	—	18	5000	8500	40	Cath. Res., 56 ohms	5U8	
						Pentode Unit as Class A Amplifier	250	Cath. Bias	110	3.5	10	40000	5200	—	Cath. Res., 68 ohms		
5V4-G	Full-Wave Rectifier	D11b	H	5.0	2.0	With Capacitive-Input Filter	—	—	—	—	—	—	—	—	—	5V4-G	
						With Inductive-Input Filter	—	—	—	—	—	—	—	—	—		—
5W4 5W4-GT	Full-Wave Rectifiers	C2 C6	F	5.0	1.5	With Capacitive-Input Filter	—	—	—	—	—	—	—	—	—	5W4 5W4-GT	
						With Inductive-Input Filter	—	—	—	—	—	—	—	—	—		—
5X4-G	Full-Wave Rectifier	E2	F	5.0	3.0	—	—	—	—	—	—	—	—	—	—	5X4-G	
5X8	Triode—Pentode Converter	80a	H	4.7	0.6	Triode Unit as 250-Mc. Oscillator	150	—	—	—	—	—	—	—	—	5X8	
						Pentode Unit as Mixer	150	—	—	—	—	—	—	—	—		—
5Y3-G 5Y3-GT	Full-Wave Rectifiers	D11b C8	F	5.0	2.0	With Capacitive-Input Filter	—	—	—	—	—	—	—	—	—	5Y3-G 5Y3-GT	
						With Inductive-Input Filter	—	—	—	—	—	—	—	—	—		—
5Y4-G	Full-Wave Rectifier	D11b	F	5.0	2.0	—	—	—	—	—	—	—	—	—	—	5Y4-G	
5Z3	Full-Wave Rectifier	E3	F	5.0	3.0	—	—	—	—	—	—	—	—	—	—	5Z3	
5Z4	Full-Wave Rectifier	C2	H	5.0	2.0	With Capacitive-Input Filter	—	—	—	—	—	—	—	—	—	5Z4	
						With Inductive-Input Filter	—	—	—	—	—	—	—	—	—		—
6A3	Power Amplifier Triode	E3	F	6.3	1.0	Amplifier	—	—	—	—	—	—	—	—	—	6A3	

For data on RCA Picture Tubes see pages 30 through 35.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
6A4/LA	Power Amplifier Pentode	D12a	F	6.3	0.3	Class A Amplifier	100 180	- 6.5 -12.0	100 180	1.6 3.9	9.0 22.0	83250 45500	1200 2200	—	11000 8000	0.31 1.40	6A4/LA
6A6	Twin-Triode Amplifier	D12a	H	6.3	0.8	Amplifier	For other characteristics, refer to Type 6N7-GT.										6A6
6A7 6A7S	Pentagrid Converters	D9	H	6.3	0.3	Converter	For other characteristics, refer to Type 6A8.										6A7 6A7S
6A8 6A8-G 6A8-GT	Pentagrid Converters	C1 D8 C3	H	6.3	0.3	Converter	100 250	- 1.5 - 3.0	50 100	1.3 2.7	1.1 3.5	600000 360000	Anode-Grid (#2): 250 μ max. v 4.0 ma. Oscillator-Grid (#1) Res. μ Conversion Transcond., 550 μ mhos			6A8 6A8-G 6A8-GT	
6AB4	High-Mu Triode	B0	H	6.3	0.15	Class A Amplifier	100 250	Cath. Res. 270 ohms Cath. Res., 200 ohms	50 100	3.7 10.0	15000 10900	4000 5500	60 60	—		6AB4	
6AB5/ 6N5	Electron-Ray Tube Indicator Type	D4	H	6.3	0.15	Visual Indicator	Plate & Target Supply = 135 volts. Triode Plate Resistor = 0.25 meg. Target Current = 2.0 ma. Grid Bias, - 10.0 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.5 ma. Plate & Target Supply = 135 volts. Triode Plate Resistor = 1.0 meg. Target Current = 1.9 ma. Grid Bias, -15.5 volts; Shadow Angle, 0°. Bias, 0 volts; Angle 90°; Plate Current, 0.13 ma.										6AB5/ 6N5
6AB7	Remote-Cutoff Pentode	B2	H	6.3	0.45	Class A Amplifier	300	- 3.0	200	3.2	12.5	700000	5000	—		6AB7	
6AC5-GT	High-Mu Power Amplifier Triode	C2b	H	6.3	0.4	Class B Amplifier Dynamic-Coupled Amplifier With 76 Driver	250	0	—	—	5.0	—			10000	8.0	6AC5-GT
							Bias for both 6AC5-GT and 76 is developed in coupling circuit. Average Plate Current of Driver = 5.5 milliamperes. Average Plate Current of 6AC5-GT = 32 milliamperes.										
6AC7	Sharp-Cutoff Pentode	B2	H	6.3	0.45	Class A Amplifier	300	Cath. Bias 150	2.5	10.0	1.0	9000	Cathode-Bias Resistor, 160 ohms			6AC7	
6AD6-G	Electron-Ray Tube Twin Indicator Type	B5b	H	6.3	0.15	Visual Indicator	Target Voltage, 100 volts. Control-Electrode Voltage, - 23 volts; Shadow Angle, 135°; Target Current, 0.8 ma. Control-Electrode Voltage, 45 volts; Angle, 0°; Target Current, 1.5 ma. Target Voltage, 150 volts. Control-Electrode Voltage, - 50 volts; Shadow Angle, 135°; Target Current, 1.2 ma. Control-Electrode Voltage, 75 volts; Angle, 0°; Target Current, 3 ma.										6AD6-G

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.
Two vertical rules before or after type No. = Metal type.
One vertical rule before or after type No. = GT or other larger glass type.
Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see pages 34 and 35.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/2 (approx.) of filament voltage.

† Power output is for two tubes at stated plate-to-plate load.

‡ For two tubes.

§ Megohms.

● Heater has controlled warm-up time for series-string operation.

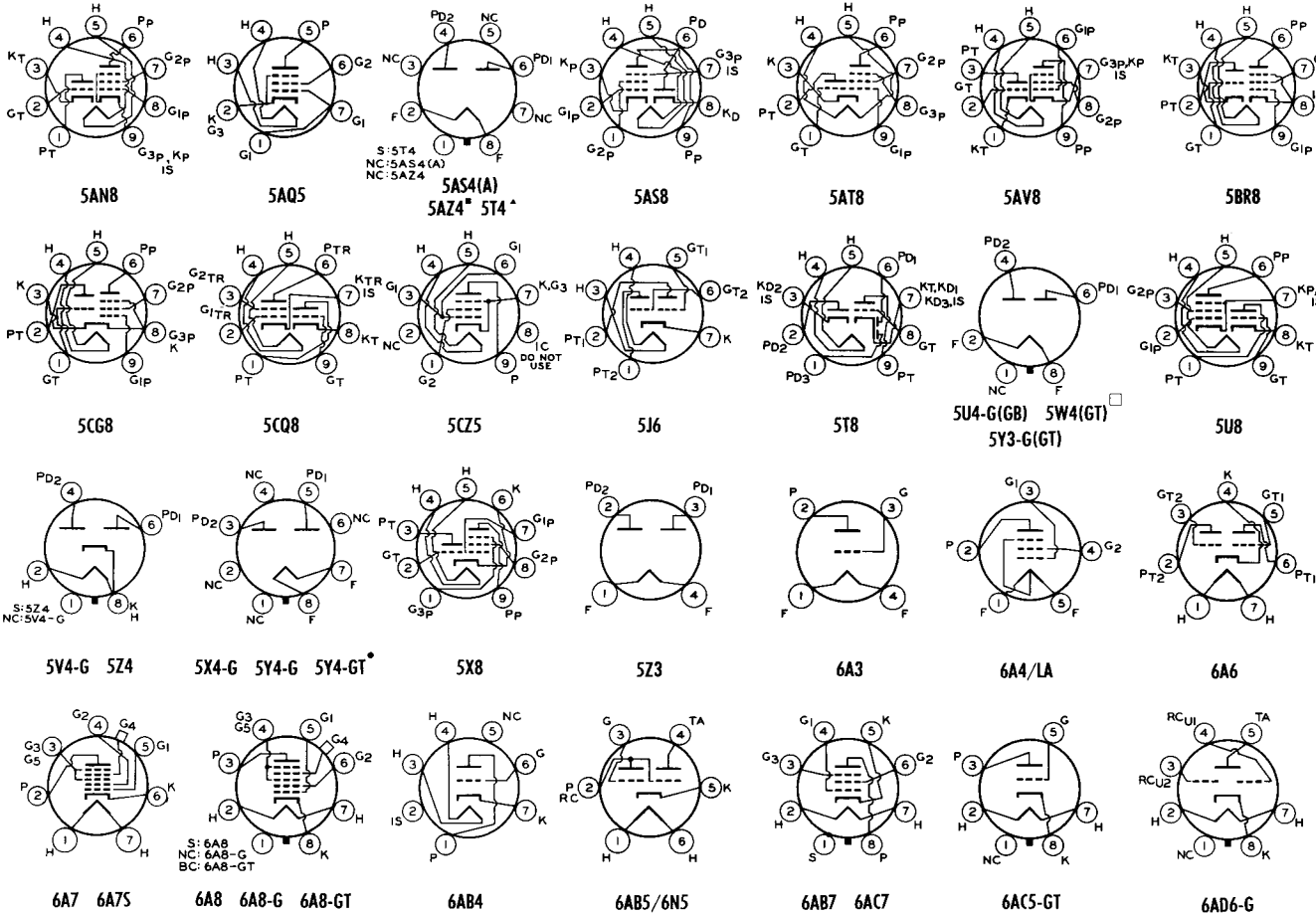
• Grids # 3 and # 5 are screen. Grid # 4 is signal-input control grid.

• 50000 ohms.

✓ With separate excitation and triode unit grounded.

Supply voltage applied through 20000-ohm voltage-dropping resistor.

Note 1: Subscript 1 on class of amplifier service (as AB₁) indicates that grid current does not flow during any part of input cycle.



• Does not have pins 4 and 6.
* Pin Nos. 3, 5, and 7 are omitted.

° Pin No. 2 includes an internal shield.
• Lock-in type tube.

□ Pin No. 1 is connected to shell on tube type 5W4.
° Pin No. 7 includes an internal shield.

Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type	
			C. T.	Volts	Amp.													
6AD7-G	Triode—Power Pentode	D11b	H	6.3	0.85	Triode Unit as Class A Amplifier	250	-25.0	—	—	3.7	19000	325	6	—	—	6AD7-G	
						Pentode Unit as Class A Amplifier	250	-16.5	250	6.5	34.0	80000	2500	—	7000	3.2		
						Pentode Unit With 6F6-Gas Push-Pull Class AB ₁ Amplifier	375	Cath. Bias	250	6.7	41.0	Cathode-Bias Resistor, 470 ohms			16000	9.0†		
6AE5-GT	Amplifier Triode	C5	H	6.3	0.3	Class A Amplifier	95	-15.0	—	—	7.0	3500	1200	4.2	—	—	6AE5-GT	
6AE6-G	Twin-Plate Control Tube	D3	H	6.3	0.15	Remote Cutoff Triode	250	-1.5	—	—	6.5	25000	1000	25	—	—	6AE6-G	
						Remote Cutoff Triode	250	-1.5	—	—	4.5	35000	950	33	—	—		
6AE7-GT	Twin-Input Triode Amplifier	C2b	H	6.3	0.5	Class A Amp. AA	250	-13.5	—	—	10.0	4650	3000	14	—	—	6AE7-GT	
						Driver For Push-Pull 6AC5-GT In Dynamic-Coupled Amplifier	250	Bias for both 6AC5-GT and 6AE7-GT developed in coupling circuit. Zero-Signal Plate Current of 6AE7-GT = 10 milliamperes. Zero-Signal Plate Current of 6AC5-GT = 64 milliamperes. Power Output is for two 6AC5-GT at stated plate-to-plate load.										
6AF4 6AF4-A	Medium-Mu Triodes	A1 B0	H	6.3	0.225	Class A Amplifier	100	—	—	—	16 20	2270 2130	6600 7500	15 16	—	—	6AF4 6AF4-A	
						Oscillator at 950 Mc.	100	Grid Bias Volts, -4	—	—	22	Grid Current (Approx.), 400 μ amp			Useful Power Output, 160 milliwatts			
6AF6-G	Electron-Ray Tube Twin Indicator Type	B0c	H	6.3	0.15	Visual Indicator	Target Voltage, 125 volts. Control-Electrode Voltage, 0 volts; Shadow Angle, 95°; Target Current, 0.65 ma. Control-Electrode Voltage, 80 volts; Angle, 0°.										6AF6-G	
							Target Voltage, 250 volts. Control-Electrode Voltage, 0 volts; Shadow Angle, 95°; Target Current, 2.2 ma. Control-Electrode Voltage, 160 volts; Angle, 0°.											
6AG5	Sharp-Cutoff Pentode	B0	H	6.3	0.3	As Pentode Class A Amplifier	100	Cath. Bias	100	1.4	4.5	600000	4500	Cath. Bias Res., 180 ohms	—	—	6AG5	
						As Triode	250	150	2.0	6.5	800000	5000	Cath. Bias Res., 180 ohms	—	—			
						Class A Amplifier	180	Cath. Bias	—	—	7.0	8000	5700	Cath. Bias Res., 330 ohms	—	—		
6AG7	Power Pentode	C2	H	6.3	0.65	Class A Amplifier	250	Cath. Bias	—	—	5.5	10000	3800	Cath. Bias Res., 820 ohms	—	—	6AG7	
						4-Mc. Bandwidth Video Circuit	300	Cath. Bias	125	7.0	28.0	Cathode-Bias Resistor, 57 ohms. Load Resistance, 3500 ohms. Peak-to-Peak Volts Output, 140 approx.			—	—		
6AH4-GT	Medium-Mu Triode	C2b	H	6.3	0.75	Vertical Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 500					Max. Peak Positive-Pulse Plate Volts, 2000					6AH4-GT	
							Max. DC Cathode Ma., 60					Max. Peak Power Output, 160 milliwatts						
6AH6	Sharp-Cutoff Pentode	B0	H	6.3	0.45	Class A Amplifier	300	Cath. Bias	150	2.5	10.0	500000	9000	Cath. Res., 160 ohms	—	—	6AH6	
6AK5	Sharp-Cutoff Pentode	A1	H	6.3	0.175	Class A Amplifier	120	Cath. Bias	120	2.5	7.5	300000	5000	Cath. Res., 180 ohms	—	—	6AK5	
6AK6	Power Amplifier Pentode	B0	H	6.3	0.15	Class A Amplifier	180	-9.0	180	2.5	15	200000	2300	—	10000	1.1	6AK6	
6AL5	Twin Diode	A1	H	6.3	0.3	Detector Rectifier	Max. Peak Inverse Volts, 330					Max. DC Output Ma. per Plate, 9					6AL5	
							Max. Peak Plate Ma. per Plate, 54					Max. Heater-Cathode Volts, 330						
6AL7-GT	Electron-Ray Tube Indicator Type	C0a	H	6.3	0.15	Visual Indicator	Target Voltage, 315 volts					Grid Voltage for Pattern Cutoff, -7 volts approx.					6AL7-GT	
							Grid Voltage = 0 volts					Deflecting-Electrodes—No. 1, No. 2 and No. 3						
6AM4	High-Mu Triode	A1b	H	6.3	0.225	Class A Amplifier	150	Cath. Bias	—	—	7.5	9500	9000	85	Cath. Bias Res., 100 ohms	—	6AM4	
6AM8 6AM8-A	Diode—Sharp-Cutoff Pentodes	B0a	H	6.3	0.45	Diode Unit	Max. DC Plate Ma., 5					Max. Peak Heater-Cathode Volts, \pm 200					6AM8 6AM8-A	
							DC Volts Not to Exceed, +100											
6AN4	High-Mu Triode	A1	H	6.3	0.225	Class A Amplifier	200	Cath. Bias	—	—	13	—	10000	70	Cath. Bias Res., 100 ohms	—	6AN4	
						Mixer Service	125	Cath. Bias Res., 270 ohms	7	Conversion Transcond., 2900 micromhos			Oscillator Injection Volts (RMS), 1.4					
6AN8	Triode—Sharp-Cutoff Pentode	B0a	H	6.3	0.45	Triode Unit as Class A Amplifier	200	-6	—	—	13.0	5750	3300	19	—	—	6AN8	
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	—	Cath. Res., 180 ohms	—		
6AQ5 6AQ5-A	Beam Power Tubes	B1	H	6.3	0.45	Single Tube Class A Amplifier	180	-8.5	180	3.0	29.0	58000	3700	—	5500	2.0	6AQ5 6AQ5-A	
						Push-Pull Class AB ₁ Amplifier	250	-12.5	250	4.5	45.0	52000	4100	—	5000	4.5		
6AQ6	Twin-Diode High-Mu Triode	B0	H	6.3	0.15	Triode Unit as Class A Amplifier	100	-1.0	—	—	0.8	61000	1150	70	—	—	6AQ6	
						Twin-Diode High-Mu Triode	250	-3.0	—	—	1.0	58000	1200	70	—	—		
6AQ7-GT	Power Pentode	B1	H	6.3	0.4	Class A Amplifier	250	-2	—	—	2.3	44000	1600	70	—	—	6AQ7-GT	
6AR5	Beam Power Tube	B1	H	6.3	0.8	Class A Amplifier	250	-16.5	250	5.7	34.0	65000	2400	—	7000	3.2	6AR5	
						Class A Amplifier	250	-18	250	5.5	32.0	68000	2300	—	7600	3.4		
6AS5	Beam Power Tube	B1	H	6.3	0.8	Class A Amplifier	150	-8.5	110	2.0	35	—	5600	—	4500	2.2	6AS5	
6AS8	Diode—Sharp-Cutoff Pentode	B0a	H	6.3	0.45	Diode Unit	Max. Peak Inverse Plate Volts, 330					Max. Average Plate Ma., 5.0					6AS8	
							Max. Peak Plate Ma., 50											
6AT6	Twin-Diode High-Mu Triode	B0	H	6.3	0.3	Triode Unit as Class A Amplifier	100	-1.0	—	—	0.8	54000	1300	70	—	—	6AT6	
						Triode Unit as Class A Amplifier	250	-3.0	—	—	1.0	58000	1200	70	—	—		
6AT8 6AT8-A	Triode—Pentode Converters	B0a	H	6.3	0.45	Triode Unit as 250-Mc. Oscillator	150	Grid Resistor, 2700 ohms					Plate Current, 13 ma.					6AT8 6AT8-A
						Pentode Unit as Mixer	150	Grid-No. 2 Volts, 150					Power Output (Approx.), 0.5 watt					
6AU4-GT	Half-Wave Rectifier	C10b	H	6.3	1.8	Television Damper Service	Max. Peak Inverse Plate Volts, 4500 (Absolute)					Max. Average Plate Ma., 175					6AU4-GT	
							Max. Peak Plate Ma., 1050					Max. Plate Dissipation 6.0 watts						
6AU4-GTA	Half-Wave Rectifier	C10b	H	6.3	1.8	Television Damper Service	Max. Peak Inverse Plate Volts, 4500 (Absolute)					Max. Average Plate Ma., 190					6AU4-GTA	
							Max. Peak Plate Ma., 1150					Max. Plate Dissipation, 6.0 Watts						
6AU5-GT	Beam Power Tube	C2b	H	6.3	1.25	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 550					Max. Peak Positive-Pulse Plate Volts, 5500 Absolute					6AU5-GT	
							Max. DC Cathode Ma., 110					Max. Plate Dissipation, 10 watts						
6AU6	Sharp-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	100	Cath. Bias	100	2.1	5.0	500000	3900	Cath. Bias Res., 150 ohms	—	—	6AU6	
6AU7	Medium-Mu Twin-Triode	B0a	H	6.3	0.6	Each Unit as Class A Amplifier	100	0	—	—	13	6300	3500	22	—	—	6AU7	
							250	-8.5	—	—	10.5	7950	2200	17.5	—	—		
6AU8	Triode—Sharp-Cutoff Pentode	B3	H	6.3	0.6	Triode Unit as Class A Amplifier	150	Cath. Res., 150 ohms	—	—	9	8200	4900	40	—	—	6AU8	
						Pentode Unit as Class A Amplifier	200	Cath. Bias	—	—	3.4	15	150000	7000	Cath. Bias Res., 82 ohms	—		
6AV5-GA 6AV5-GT	Beam Power Tubes	D1a C2b	H	6.3	1.2	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 550					Max. Peak Positive-Pulse Plate Volts, 5500					6AV5-GA 6AV5-GT	
							Max. DC Cathode Ma., 110					Max. Plate Dissipation, 11 watts						
6AV6	Twin-Diode High-Mu Triode	B0	H	6.3	0.3	Triode Unit as Class A Amplifier	100	-1.0	—	—	0.5	80000	1250	100	—	—	6AV6	
						Triode Unit as Class A Amplifier	250	-2.0	—	—	1.2	62500	1600	100	—	—		
6AW8	High-Mu Triode—Sharp-Cutoff Pentode	B3	H	6.3	0.6	Triode Unit as Class A Amplifier	200	-2	—	—	4	17500	4000	70	—	—	6AW8	
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	3.5	13	400000	9000	Cath. Res., 180 ohms	—	—		

For data on RCA Picture Tubes see pages 30 through 35.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
6AW8-A	High-Mu Triode—Sharp-Cutoff Pentode	B3	H	6.3	0.6	Triode Unit as Class A Amplifier	200	- 2	—	—	4	17500	4000	70	—	6AW8-A	
						Pentode Unit as Class A Amplifier**	200	Cath. Bias	150	3.5	13	400000	9000	Cath. Bias Res., 180 ohms			
** Features a plate current characteristic with a controlled knee. Max. Plate Dissipation, 3.25 watts																	
6AX4-GT	Half-Wave Rectifier	C2b	H	6.3	1.2	Television Damper Service	Max. Peak Inverse Plate Volts, 4400		Max. Peak Heater-Cathode Volts: -4400**		Max. DC Output Ma., 80		Min. Total Effec. Supply Imped. per Plate, 105		6AX4-GT		
						Max. Peak Plate Ma., 750		Max. DC Output Ma., 125		Max. DC Output Ma., 125		Min. Value of Input Choke, 10 henries					
**DC component must not exceed 900 volts.																	
6AX5-GT	Full-Wave Rectifier	C2b	H	6.3	1.2	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 450		Max. DC Output Ma., 80		Min. Total Effec. Supply Imped. per Plate, 105		6AX5-GT				
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450		Max. DC Output Ma., 125		Min. Value of Input Choke, 10 henries						
6AZ8	Medium-Mu Triode—Semiremote-Cutoff Pentode	B0a	H	6.3	0.45	Triode Unit as Class A Amplifier	200	- 6	—	—	13	5750	3300	19	—	6AZ8	
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	3	9.5	300000	6000	Cath. Res., 180 ohms			

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Two vertical rules before or after type No. = Metal type.

One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see pages 34 and 35.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/2 (approx.) of filament voltage.

† Power output is for two tubes at stated plate-to-plate load.

♣ For two tubes.

§ Megohms.

● Heater has controlled warm-up time for series-string operation.

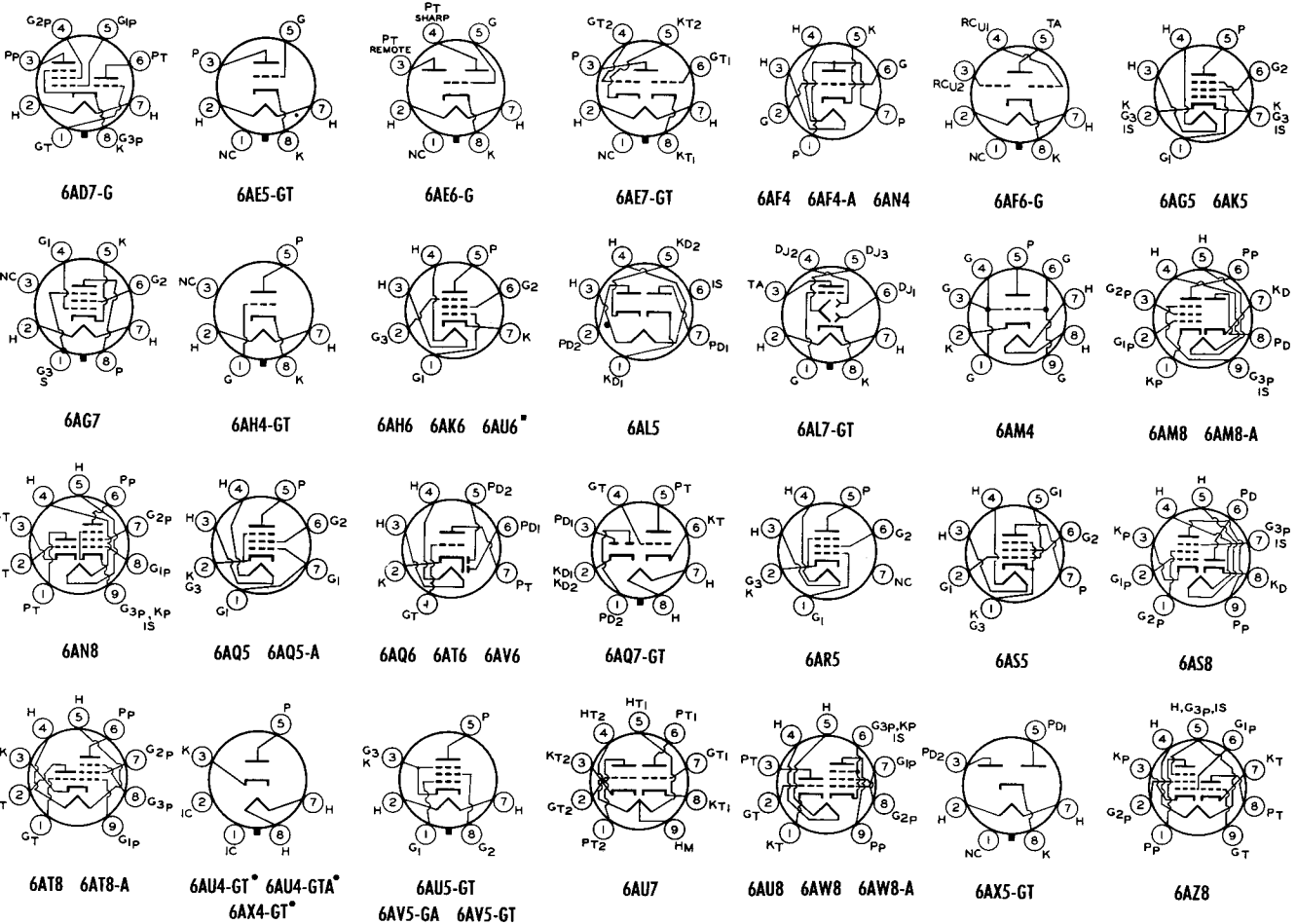
■ With tube mounted horizontally and pins No. 4 and No. 8 in a vertical plane (pin No. 4 on top), deflecting electrode No. 1 controls left-hand section of pattern, deflecting electrode No. 2 controls top right-hand section of pattern, deflecting electrode No. 3 controls bottom section of pattern.

□ Grid # 2 tied to plate.

▲▲ Both grids connected together; likewise both cathodes.

✓ With separate excitation and triode unit grounded.

Note 1: Subscript 1 on class of amplifier service (as AB₁) indicates that grid current does not flow during any part of input cycle.



● Socket terminals 1, 2, 4, and 6 should not be used at tie points.

■ Pin No. 2 includes an internal shield.

6B4-G to 6BZ7

RCA RECEIVING TUBES

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
6B4-G	Power Amplifier Triode	E2	F	6.3	1.0	Class A Amplifier Push-Pull Class AB ₁ Amplifier	250 325 325	-45.0 Cath. Bias, 850 ohms -68 volts, fixed bias			60.0 80.0 80.0	800	5250	4.2	2500 5000 3000	3.20 10.0† 15.0†	6B4-G
6B5	Direct-Coupled Power Amplifier	D12a	H	6.3	0.8	Class A Amplifier	For other characteristics, refer to Type 6N6-G.										6B5
6B6-G	Twin-Diode High-Mu Triode	D8	H	6.3	0.3	Triode Unit as Amplifier	For other characteristics, refer to Type 6SQ7.										6B6-G
6B7 6B7S	Twin-Diode Remote-Cutoff Pentode	D9	H	6.3	0.3	Pentode Unit as Amplifier	Input Triode: Plate Volts, 300 max; Grid Volts, 0; Plate Ma., 8; AF Signal Volts (Peak), 21 Output Triode: Plate Volts, 300 max.; Plate Ma., 45; Plate Res., 24000 ohms; Load Resistance, 7000 ohms; Power Output, 4 watts.										6B7 6B7S
6B8	Twin-Diode Pentode	C1	H	6.3	0.3	Pentode Unit as Amplifier	For other characteristics, refer to Type 12C8.										6B8
6B8-G	Twin Diode—Remote-Cutoff Pentode	D8	H	6.3	0.3	Pentode Unit as RF Amplifier Pentode Unit as AF Amplifier	100 250	- 3.0 - 3.0	100 125	1.7 2.3	5.8 9.0	300000 600000	950 1125				6B8-G
6BA6	Remote-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	100 250	- 1.0 - 1.0	100 100	4.4 4.2	10.8 11.0	250000 1.0‡	4300 4400	Cath. Bias Res., 68 ohms Cath. Bias Res., 68 ohms			6BA6
6BA7	Pentagrid Converter	B3	H	6.3	0.3	Converter	100 250	- 1.0 - 1.0	100 100	10.2 10.0	3.6 3.8	500000 1.0‡	Grid-No. 1 Resistor, 20000 ohms Conversion Transcond., 950 micromhos			6BA7	
6BA8-A	Medium-Mu Triode Sharp-Cutoff Pentode	B3	H	6.3	0.6	Triode Unit as Class A Amplifier Pentode Unit as Class A Amplifier	200	- 8			8	6700	2700	18			6BA8-A
6BC4	Medium-Mu Triode	A1b	H	6.3	0.225	Class A Amplifier	150	Cath. Bias			14.5	4800	10000	48	Cath. Res., 100 ohms		6BC4
6BC5	Sharp-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	250	Cath. Bias	150	2.1	7.5	800000	5700		Cath. Bias Res., 180 ohms		6BC5
6BC7	Triple Diode	B0a	H	6.3	0.45	DC Restorer in Color TV	Each Diode: Max. Peak Inverse Plate Volts, 300 Max. Peak Plate Ma., 54										6BC7
6BC8	Medium-Mu Twin-Triode	B0a	H	6.3	0.4	Each Unit as Class A Amplifier	150	Cath. Res., 220 ohms			10		6200	35			6BC8
6BD4	Sharp-Cutoff Beam Triode	E0	H	6.3	0.6	Voltage-Control	Max. DC Plate Volts, 20000 Max. Unregulated DC Supply Volts, 40000										6BD4
6BD4-A	Sharp-Cutoff Beam Triode	E0	H	6.3	0.6	Voltage-Control	Max. DC Plate Volts, 27000 Max. Unregulated DC Supply Volts, 55000										6BD4-A
6BD6	Remote-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	100 250	- 1 - 3	100 100	5.0 3.0	13.0 9.0	150000 800000	2550 2000				6BD6
6BE6	Pentagrid Converter	B0	H	6.3	0.3	Converter	100 250	- 1.5 - 1.5	100 100	7.0 6.8	2.6 2.9	400000 1.0‡	Grid #1 Resistor, 20000 ohms Conversion Transcond., 475 micromhos				6BE6
6BF5	Beam Power Tube	B1	H	6.3	1.2	Class A Amplifier Vertical Deflection Amplifier in TV Receivers	110	- 7.5	110	4.0	36.0	12000	7500		2500	1.9	6BF5
6BF6	Twin-Diode Triode	B0	H	6.3	0.3	Triode Unit as Class A Amplifier	250	- 9.0			9.5	8500	1900	16		Power Output, 300 milliwatts	6BF6
6BG6-G 6BG6-GA	Beam Power Tubes	F1 E	H	6.3	0.9	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 700 Max. DC Plate Ma., 110										6BG6-G 6BG6-GA
6BH6	Sharp-Cutoff Pentode	B0	H	6.3	0.15	Class A Amplifier	100 250	- 1.0 - 1.0	100 150	1.4 2.9	3.6 7.4	700000 1.4‡	3400 4600				6BH6
6BH8	Triode—Sharp-Cutoff Pentode	B3	H	6.3	0.6	Triode Unit as Class A Amplifier Pentode Unit as Class A Amplifier	150 200	- 5 Cath. Bias			9.5 15	5150 150000	3300	17	Cath. Bias Res., 82 ohms		6BH8
6BJ6	Remote-Cutoff Pentode	B0	H	6.3	0.15	Class A Amplifier	100 250	- 1.0 - 1.0	100 100	3.5 3.3	9.0 9.2	250000 1.3‡	3650 3600				6BJ6
6BK4	Sharp-Cutoff Beam Triode	E2a	H	6.3	0.2	Voltage-Control	Max. DC Plate Volts, 25000 Max. Unregulated DC Supply Volts, 55000										6BK4
6BK5	Beam Power Tube	B3	H	6.3	1.2	Class A Amplifier	250	- 5	250	3.5	35	100000	8500		6500	3.5	6BK5
6BK7-A 6BK7-B	Medium-Mu Twin Triodes	B0a	H	6.3	0.45	Each Unit as Class A Amplifier	150	Cathode Bias Res., 56 ohms			18	4600	9300	43	Cutoff Volts, -11		6BK7-A 6BK7-B
6BL4	Half-Wave Rectifier	D11a	H	6.3	3.0	Television Damper Service	Max. Peak Inverse Plate Volts, 4500 (Abs.) Max. DC Plate Ma., 1200 Max. DC Plate Ma., 200										6BL4
6BL7-GT	Medium-Mu Twin Triode	C2b	H	6.3	1.5	Vertical Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 500 Max. DC Cathode Ma. (Each Unit), 60										6BL7-GT
6BN4	Medium-Mu Triode	B0	H	6.3	0.2	Class A Amplifier	150	Cathode Bias Res., 150 ohms			9	6300	6800	43			6BN4
6BN6	Beam Pentode	B1	H	6.3	0.3	Limiter and Discriminator Service	Max. DC Plate Volts, 300 Max. Positive-Peak Grid-No. 1 Volts, 55 Max. Cathode Ma., 11.5										6BN6
6BN8	Twin-Diode High-Mu Triode	B3	H	6.3	0.6	Triode Unit as Class A Amplifier	100 250	- 1 - 3			1.5 1.6	21000 28000	3500 2500	75 70			6BN8
6BQ6-GT	Beam Power Tube	C11	H	6.3	1.2	Horizontal Deflection Amplifier	Max. DC Plate Volts, 550 Max. DC Cathode Ma., 110										6BQ6-GT
6BQ6-GT/B 6CU6	Beam Power Tube	C11	H	6.3	1.2	Horizontal Deflection Amplifier	Max. DC Plate Volts, 600 Max. DC Cathode Ma., 112.5										6BQ6-GT/B 6CU6
6BQ7	Medium-Mu Twin Triode	B0a	H	6.3	0.4	Each Unit as Class A Amplifier	150	Cathode Bias Res., 220 ohms			9.0	5800	6000	35	Cutoff Volts, -10		6BQ7
6BQ7-A	Medium-Mu Twin Triode	B0a	H	6.3	0.4	Each Unit as Class A Amplifier	150	Cathode Bias Res., 220 ohms			9.0	6100	6400	39	Cutoff Volts, -10		6BQ7-A
6BR8	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	H	6.3	0.4	Triode Unit as Class A Amplifier Pentode Unit as Class A Amplifier	150 250	Cath. Bias Cath. Bias			18 10	5000 400000	8500 5200	40	Cath. Bias Res., 56 ohms Cath. Bias Res., 68 ohms		6BR8
6BS8	Medium-Mu Twin Triode	B0a	H	6.3	0.4	Cascade Amplifier	250	- 1			16	10000	12000				6BS8
6BU8	Sharp-Cutoff Twin Pentode	B3	H	6.3	0.3	Class A Amplifier With Both Sections Operating	100 100	: :	67.5 67.5	6.5 3.3	2.2				Grid-No. 3 volts, each section, -10 Grid-No. 3 volts, each section, 0		6BU8
6BX7-GT	Medium-Mu Twin Triodes	C2b	H	6.3	1.5	Vertical Deflection Oscillator Vertical Deflection Amplifier	Max. DC Plate Volts, 500 Max. Plate Dissipation: 10 watts either plate; 12 watts both plates Max. DC Plate Volts, 500 Max. DC Cathode Ma., 180 Max. Peak Inverse Plate Volts, 3000 (Abs.) Max. Peak Plate Ma., 525 Max. DC Plate Ma., 175										6BX7-GT
6BY5-GA	Full-Wave Rectifier	C11a	H	6.3	1.6	Television Damper Service	Peak Heater-Cathode Volts, 2000 (Abs.) Peak Heater-Cathode Volts, +100 Max., -450 Max.										6BY5-GA
6BY6	Pentagrid Amplifier	B0	H	6.3	0.3	Sync Separator and Sync Clipper	10	0	25	3.5	1.4				Grid-No. 3 Volts, 0		6BY6
6BZ6	Semi-remote-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	200	Cath. Bias	150	2.6	11	0.6‡	6100		Cath. Bias Res., 180 ohms		6BZ6
6BZ7	Medium-Mu Twin-Triode	B0a	H	6.3	0.4	Each Unit as Class A Amplifier	150	Cathode Bias Res., 220 ohms			10	5600	6800	38	Cutoff Volts, -11		6BZ7

For data on RCA Picture Tubes see pages 30 through 35.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
6C4	HF Power Triode	B0	H	6.3	0.15	Class A Amplifier	100 250	0 - 8.5	—	—	11.8 10.5	6250 7700	3100 2200	19.5 17	—	—	6C4
						Class C Amplifier	300	-27.0	—	—	25.0	Grid Current, 7 ma. Driving Power, 0.35 watt			—	5.5	
6C5 6C5-GT	Medium-Mu Triodes	B2 C3	H	6.3	0.3	Class A Amplifier	250 90 300	- 8.0 Cath. Bias, 6400 ohms. Cath. Bias, 5300 ohms.	—	—	8.0	10000	2000	20	Gain per stage = 11 Gain per stage = 13		6C5 6C5-GT
6C6	Sharp-Cutoff Pentode	D13a	H	6.3	0.3	Bias Detector	250	-17.0 approx.	—	—	—	—	—	—	—	—	6C6
						Amplifier Detector	For other characteristics, refer to Type 6J7.										

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.
Two vertical rules before or after type No. = Metal type.

One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see pages 34 and 35.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/2 (approx.) of filament voltage.

† Power output is for two tubes at stated plate-to-plate load.

▲ For two tubes.

§ Megohms.

● Heater has controlled warm-up time for series-string operation.

♥ Applied through plate resistor of 100000 ohms.

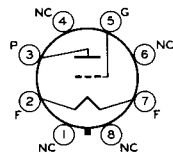
▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.

** For grid of following tube.

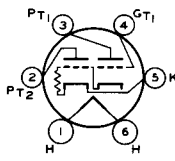
✕ Applied through plate resistor of 250000 ohms.

□ Grid # 2 tied to plate.

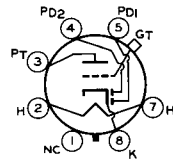
Note 1: Subscript 1 on class of amplifier service (as AB₁) indicates that grid current does not flow during any part of input cycle.



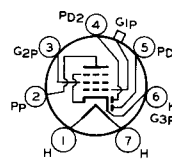
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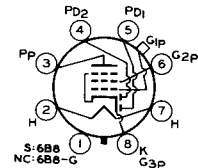
6B5



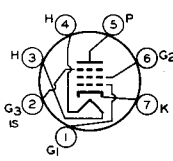
6B6-G



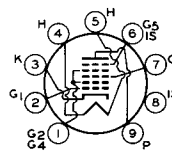
6B7 6B7S



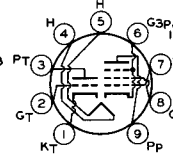
6B8 6B8-G



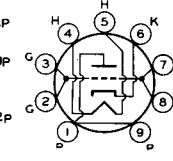
6B8A 6B8B



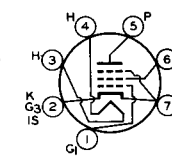
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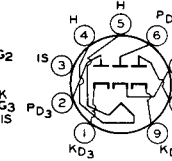
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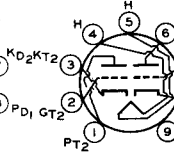
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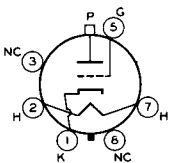
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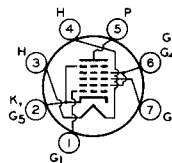
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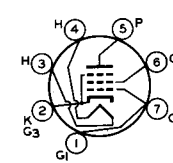
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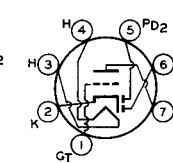
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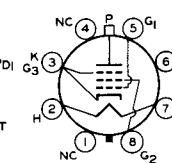
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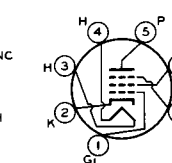
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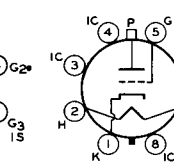
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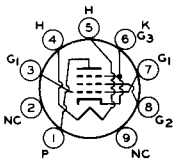
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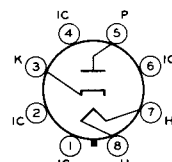
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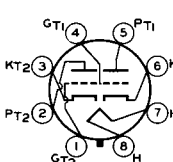
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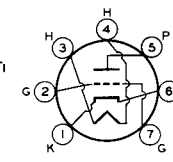
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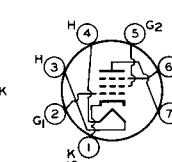
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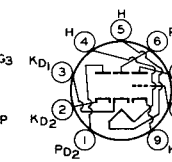
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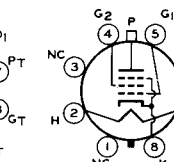
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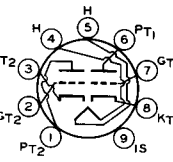
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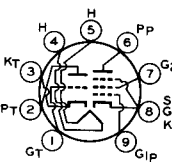
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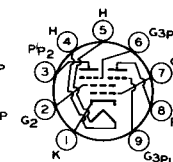
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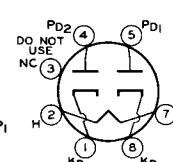
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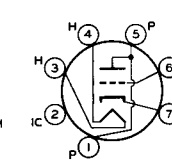
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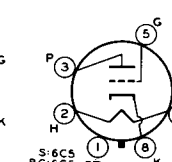
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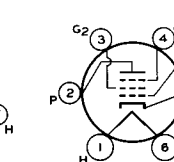
6B9R



6B9S



6B9T



6B9U

† On the 6-pin bases pin 1 as well as pin 6 is omitted.

Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mbhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type	
			C.T.	Volts	Amp.													
6C7	Twin-Diode Triode	D9	H	6.3	0.3	Triode Unit as Class A Amplifier	250	- 9.0	—	—	4.5	16000	1250	20	—	—	6C7	
6C8-G	Twin-Triode Amplifier	D8	H	6.3	0.3	Each Unit as Amplifier	250	- 4.5	—	—	3.2	22500	1600	36	—	—	6C8-G	
6CB5 6CB5-A	Beam Power Tubes	E0a E0	H	6.3	2.5	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 700 Max. DC Plate Ma., 200			Max. Peak Positive-Pulse Plate Volts, 6800 (Abs.) Max. Plate Dissipation, 23 Watts						6CB5 6CB5-A		
6CB6	Sharp-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	200	—	Cath. Bias	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms	—	6CB6	
6CD6-G 6CD6-GA	Beam Power Tubes	F1 E0	H	6.3	2.5	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 700 Max. DC Plate Ma., 170			Max. Peak Positive-Pulse Plate Volts, 6000 Max. Plate Dissipation, 15 watts						6CD6-G 6CD6-GA		
6CF6	Sharp-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	200	- 6.5	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms	—	—	6CF6	
6CG7	Medium-Mu Twin-Triode	B3	He	6.3	0.6	Horizontal Deflection Oscillator in TV Receivers	Max. DC Plate Volts, 300 Max. Peak Neg.-Pulse Grid Volts, 600			Max. Peak Cathode Ma., 300 Max. DC Cathode Ma., 20			Dissipation Watts either plate, 3.5; both plates, 5.			6CG7		
6CG8	Triode Pentode Converter	B0a	H	6.3	0.45	Triode Unit as 250-Mc. Oscillator	150	—	Grid Resistor, 2700 ohms Grid Current, 3.6 ma.	Plate Current, 13 ma. Power Output (Approx.), 0.5 watt						6CG8		
6CG8-A	Triode Pentode Converter	B0a	He	6.3	0.45	Pentode Unit as Mixer	150	—	Grid-No. 2 Volts, 150 Mixer Grid-No. 1 Supply Volts, -3.5 Conversion Transcond., 2100 μ mhos	Plate Current, 6.2 ma. Mixer Grid-No. 1 Resistor, 120000 ohms Osc. Volts at Mixer Grid-No. 1 (RMS), 2.6						6CG8-A		
6CH8	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	H	6.3	0.45	Triode Unit as Class A Amplifier	100	—	Cath. Bias	—	8.5	6900	5800	40	Cath. Bias Res., 100 ohms	—	6CH8	
6CH8	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	He	6.3	0.45	Pentode Unit as Class A Amplifier	250	—	Cath. Bias	150	1.6	7.7	750000	4600	Cath. Bias Res., 200 ohms	—	6CH8	
6CH8	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	H	6.3	0.45	Triode Unit as Class A Amplifier	200	- 6	—	—	13	5750	3300	19	—	—	6CH8	
6CH8	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	He	6.3	0.45	Pentode Unit as Class A Amplifier	200	—	Cath. Bias	150	2.8	9.5	300000	6200	Cath. Bias Res., 120 ohms	—	6CH8	
6CL6	Power Pentode	B3	H	6.3	0.65	Class A Amplifier 4-Mc. Bandwidth Video Circuit	300	- 2	300	7.0	30.0	—	—	—	Load Resistor, 3900 ohms Peak-to-Peak Grid-No. 1 Signal Volts, 3 Peak-to-Peak Output Volts, 132 approx.	—	6CL6	
6CM7	Dual Triode With Dissimilar Units	B3	He	6.3	0.6	Vertical Deflection Oscillator in TV Receivers	Unit No. 1: Max. DC Plate Volts, 500 Max. Peak Neg.-Pulse Grid Volts, 200			Max. Peak Cathode Ma., 70 Max. DC Cathode Ma., 15			Max. Plate Dissipation Watts, 1.25			6CM7		
6CM7	Dual Triode With Dissimilar Units	B3	He	6.3	0.6	Vertical Deflection Amplifier in TV Receivers	Unit No. 2: Max. DC Plate Volts, 500 Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.)			Max. Peak Neg.-Pulse Grid Volts, 200 Max. Peak Cathode Ma., 70						6CM7		
6CN7	Twin Diode High-Mu Triode	B0a	H	6.3	0.6	Triode Unit as Class A Amplifier	100	- 1	—	—	0.8	54000	1300	70	—	—	6CN7	
6CN7	Twin Diode High-Mu Triode	B0a	H	6.3	0.3	Triode Unit as Class A Amplifier	250	- 3	—	—	1	58000	1200	70	—	—	6CN7	
6CQ8	Medium-Mu Triode Sharp-Cutoff Tetrode	B0a	He	6.3	0.45	Triode Unit as Class A Amplifier	125	—	Cath. Bias	—	15	5000	8000	40	Cath. Bias Res., 56 ohms	—	6CQ8	
6CQ8	Medium-Mu Triode Sharp-Cutoff Tetrode	B0a	He	6.3	0.45	Tetrode Unit as Class A Amplifier	125	- 1	125	4.2	12	140000	5800	—	—	—	6CQ8	
6CS6	Pentagrid Amplifier	B0	H	6.3	0.3	Sync Separator and Sync Clipper	10	—	30	4.5	2	Grid-No. 3 Volts, 0 Grid-No. 1 Volts, 0				6CS6		
6CS6	Pentagrid Amplifier	B0	H	6.3	0.3	Class A Amplifier	100	- 1	30	5.5	0.8	700000	—	—	Grid-No. 3 Volts, -1 Transcond., 1500 μ mhos Grid-No. 3 Volts, 0 Transcond., 0 μ mhos	—	6CS6	
6CU5	Beam Power Tube	B1	H	6.3	1.2	Class A Amplifier	120	- 8	110	4	49	10000	7500	—	2500	2.3	6CU5	
6CU8	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	He	6.3	0.45	Triode Unit as Class A Amplifier	200	- 6	—	—	13	5750	3300	19	—	—	6CU8	
6CU8	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	H	6.3	0.45	Pentode Unit as Class A Amplifier	200	—	Cath. Bias	150	2.8	9.5	300000	6200	Cath. Bias Res., 180 ohms	—	6CU8	
6CZ5	Beam Power Tube	B3	H	6.3	0.45	Vertical Deflection Amplifier	Max. DC Plate Volts, 315 Max. Peak Cathode Ma., 140			Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.) Max. Plate Dissipation, 10 watts						6CZ5		
6CZ5	Beam Power Tube	B3	H	6.3	0.45	Class A Amplifier	250	- 14	250	4.6	46	73000	4800	—	5000	5.4	6CZ5	
6CZ5	Beam Power Tube	B3	H	6.3	0.45	Push-Pull Class AB ₁ Amplifier	350	- 23.5	280	3	46	—	—	—	7500	21.5	6CZ5	
6D6	Remote-Cutoff Pentode	D13a	H	6.3	0.3	Amplifier Mixer	For other characteristics, refer to Type 6U7-G.										6D6	
6D7	Sharp-Cutoff Pentode	D13a	H	6.3	0.3	Amplifier Detector	For other characteristics, refer to Type 6J7.										6D7	
6D8-G	Pentagrid Converter	D8	H	6.3	0.15	Converter	135 250	- 3.0 - 3.0	67.5 100	1.7 2.6	1.5 3.5	600000 400000	Anode-Grid (#2): 250 μ max. volts, 4.3 ma. Oscillator-Grid (#1) Resistor \bullet , Conversion Transcond., 550 micromhos.			6D8-G		
6DC6	Semiremote-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	200	—	Cath. Bias	150	3.0	9.0	500000	5500	Cath. Bias Res., 180 ohms	—	6DC6	
6DE6	Sharp-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	200	—	Cath. Bias	150	2.8	9.5	0.6 \ddagger	6200	Cath. Bias Res., 180 ohms	—	6DE6	
6DG6-GT	Beam Power Tube	C2b	H	6.3	1.2	Class A Amplifier	110 200	- 7.5 —	110 125	4 2.2	49 46	13000 28000	8000	—	2000 4000	2.1 3.8	6DG6-GT	
6DQ5	Beam Power Tube	D11	H	6.3	2.5	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 900 Max. DC Cathode Ma., 285			Max. Peak Positive-Pulse Plate Volts, 7000 (Abs.) Max. Plate Dissipation, 24 watts						6DQ5		
6DQ6-A	Beam Power Tube	D6	H	6.3	1.2	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 700 Max. DC Cathode Ma., 140			Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 15 watts						6DQ6-A		
6DS5	Beam Power Tube	B1	H	6.3	0.8	Class A Amplifier	200 250	- 7.5 - 8.5	200 200	3 3	35 29	28000 28000	6000 5800	—	6000 8000	3 3.8	6DS5	
6DT6	Sharp-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	150	—	Cath. Bias	100	2.1	1.1	150000	515	Cath. Bias Res., 560 ohms	—	6DT6	
6DT6	Sharp-Cutoff Pentode	B0	H	6.3	0.3	FM Detector	250	—	Cath. Bias	100	5.5	0.22	Grid-No. 3 Volts, -6; Plate Load Resistor, 270000 ohms	Cath. Res., 560 ohms			6DT6	
6DT8	High-Mu Twin Triodes	B0a	H	6.3	0.3	Class A Amplifier	100 250	Cath. Bias Res., 270 ohms Cath. Bias Res., 200 ohms	— —	— —	3.7 10	15000 10900	4000 5500	60 60	—	—	6DT8	
6E5	Electron-Ray Tube	D4	H	6.3	0.3	Visual Indicator	Plate & Target Supply = 125 volts. Triode Plate Resistor = 1.0 meg. Target Current = 0.8 ma. Grid Bias, -4.0 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.1 ma. Plate & Target Supply = 250 volts. Triode Plate Resistor = 1.0 meg. Target Current = 2.0 ma. Grid Bias, -7.5 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.2 ma.										6E5	
6E6	Twin-Triode Power Amplifier	D12a	H	6.3	0.6	Push-Pull Class A Amplifier	180 250	- 20.0 - 27.5	— —	— —	— —	Power Output is for one tube at stated plate-to-plate load.			15000 14000	0.75 1.60	6E6	
6E7	Remote-Cutoff Pentode	D13a	H	6.3	0.3	Amplifier	For other characteristics, refer to Type 6U7-G.										6E7	
6F5 6F5-GT	High-Mu Triodes	C1 C2b	H	6.3	0.3	Class A Amplifier	100 250	- 1.0 - 2.0	— —	— —	0.4 0.9	85000 66000	1150 1500	100 100	—	—	Gain per stage = 43 Gain per stage = 63	6F5 6F5-GT

For data on RCA Picture Tubes see pages 30 through 35.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
6F6	Power Pentodes	D2	H	6.3	0.7	Pentode Class A Amplifier	250	-16.5	250	6.5	34.0	80000	2500	—	7000	3.2	6F6
						Triode Class A Amplifier	250	-20.0	—	—	31.0	2600	2600	6.8	4000	0.85	
						Pentode Push-Pull Class A Amplifier	315	-24.0	285	12.0	62.0	Cath. Bias Resistor, 320 ohms	—	—	10000	10.5†	
6F6-G	Power Pentodes	D1b	H	6.3	0.7	Pentode Push-Pull Class A Amplifier	375	-26.0	250	8.0	54.0	Cath. Bias Resistor, 340 ohms	—	—	10000	19.0†	6F6-G
						Triode Push-Pull Class A Amplifier	350	-38.0	—	—	50.0	Cath. Bias Resistor, 730 ohms	—	—	10000	18.5†	
6F6-GT	Power Pentodes	C10	H	6.3	0.7	Pentode Class A Amplifier	250	-16.5	250	6.5	34.0	80000	2500	—	7000	3.2	6F6-GT
						Triode Class A Amplifier	250	-20.0	—	—	31.0	2600	2600	6.8	4000	0.85	
						Pentode Push-Pull Class A Amplifier	315	-24.0	285	12.0	62.0	Cath. Bias Resistor, 320 ohms	—	—	10000	10.5†	
6F7	Triode—Remote-Cutoff Pentode	D9	H	6.3	0.3	Triode Unit as Class A Amplifier	100	-3.0 min.	—	—	3.5	16000	500	8	—	—	6F7
						Pentode Unit as Class A Amplifier	100	-3.0 min.	100	1.6	6.3	290000	1050	—	—	—	
						Pentode Unit as Mixer	250	-10.0	100	0.6	2.8	Oscillator Peak Volts = 7.0. Conversion Transcond. = 300 micromhos.	—	—	—	—	
6F8-G	Twin-Triode Amplifier	D8	H	6.3	0.6	Each Unit as Amplifier	—	—	—	—	—	—	—	—	—	6F8-G	

For other characteristics, refer to Type 6J5.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.
Two vertical rules before or after type No. = Metal type.

One vertical rule before or after type No. = GT or other larger glass type.
Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see pages 34 and 35.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/2 (approx.) of filament voltage.

† Power output is for two tubes at stated plate-to-plate load.

♣ For two tubes.

§ Megohms.

● Heater has controlled warm-up time for series-string operation.

○ Grids # 3 and # 5 are screen. Grid # 4 is signal-input control grid.

** For grid of following tube.

▲ Applied through plate resistor of 250000 ohms.

† Grid # 2 tied to plate.

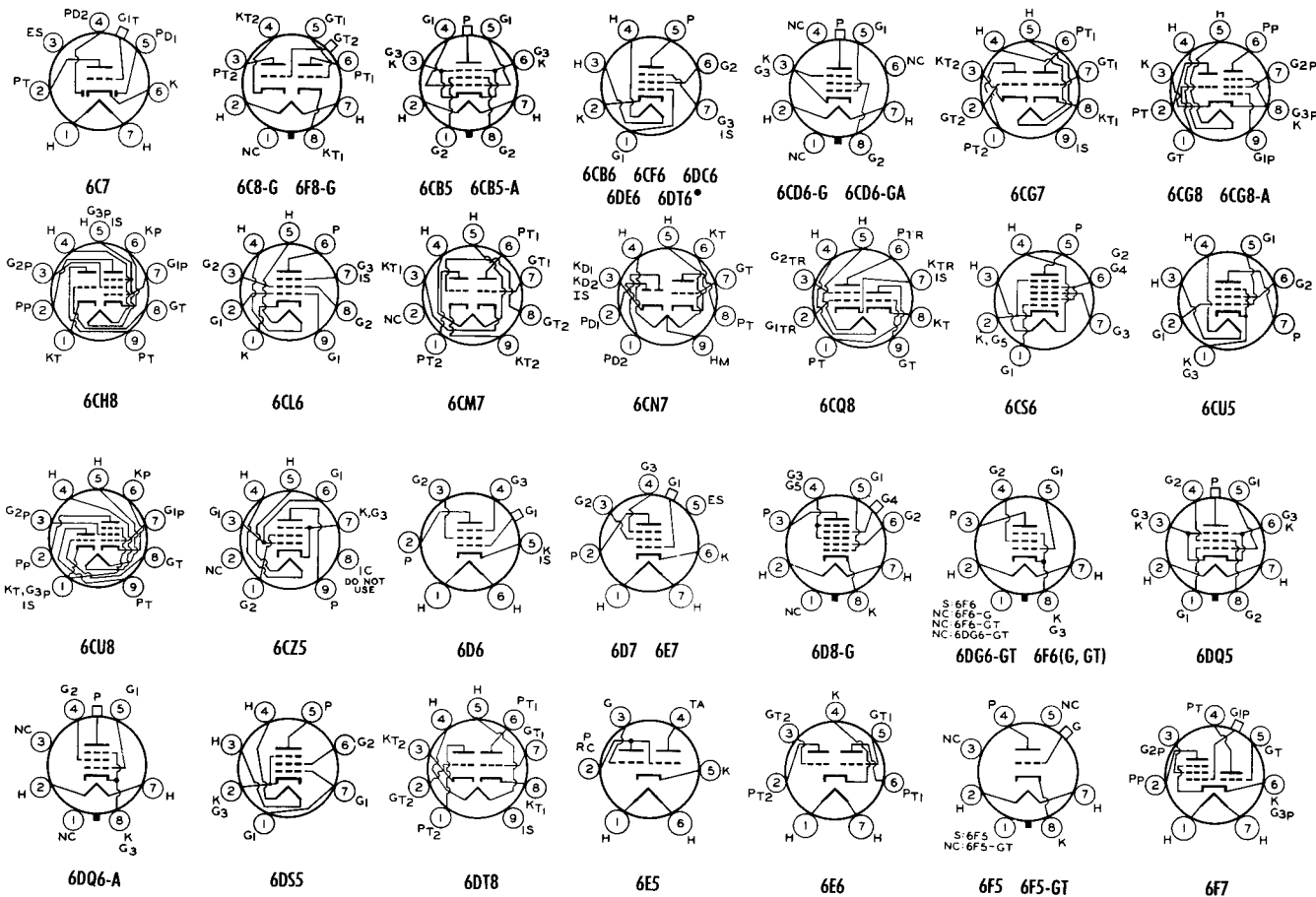
▲ Supply voltage applied through 20000-ohm voltage-dropping resistor.

▲ 50000 ohms.

✓ With separate excitation and triode unit grounded.

Note 1: Subscript 1 on class of amplifier service (as AB₁) indicates that grid current does not flow during any part of input cycle.

Note 2: Subscript 2 on class of amplifier service (as AB₂) indicates that grid current flows during some part of the input cycle.



S: 6F6
 NC: 6F6-G
 NC: 6F6-GT
 NC: 6DG6-GT

S: 6F5
 NC: 6F5-GT

• IS is connected to pin No. 2 instead of pin No. 7.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type		
			C.T.	Volts	Imp.														
6G6-G	Power Amplifier Pentode	D3	H	6.3	0.15	Pentode Class A Amplifier	135 180	- 6.0 - 9.0	135 180	2.0 2.5	11.5 15.0	170000 175000	2100 2300	—	12000 10000	0.6 1.1	6G6-G		
						Triode Class A Amplifier	180	-12.0	—	—	11.0	4750	2000	9.5	12000	0.25			
						Voltage Doubler	Max. AC Supply Volts per Plate (RMS), 150 Min. Total Effect. Plate-Supply Imped. per Plate: half-wave, 30 ohms; full-wave, 15 ohms.												
6H6 6H6-GT	Twin Diodes	A1a C3	H	6.3	0.3	Half-Wave Rectifier	Max. AC Plate Volts (RMS), 150 Max. DC Output Ma., 8 per Plate											6H6 6H6-GT	
6J5 6J5-GT	Medium-Mu Triodes	B2 C3	H	6.3	0.3	Class A Amplifier	90 250	0 - 8.0	—	—	10.0 9.0	6700 7700	3000 2600	20 20	—	—	6J5 6J5-GT		
6J6	Medium-Mu Twin Triode	B0	H	6.3	0.45	Each Unit as Class A Amplifier	100	—	Cathode Resistor, for both units, 50 ohms		8.5	7100	5300	38	—	—	6J6		
						Push-Pull Class C Amplifier	150	-10.0	Cath. Res., 220 ohms, both units	30.0	Grid Current, 16 ma. Driving Power, 0.35 watt.	—	—	—	—	3.5			
6J7 6J7-G 6J7-GT	Sharp-Cutoff Pentodes	C1 D8 C3	H	6.3	0.3	Pentode Class A RF Amplifier	100 250	- 3.0 - 3.0	100 100	0.5 0.5	2.0 2.0	1.0 \S 1.0 \S	1185 1225	—	—	—	6J7 6J7-G 6J7-GT		
						Pentode Class A AF Amplifier	90 \times 300 \times	—	Cath. Bias, 2600 ohms. Screen Resistor = 1.2 meg. Cath. Bias, 1200 ohms. Screen Resistor = 1.2 meg.	—	Grid Resistor, ** 0.5 megohm. Gain per stage = 85	—	—	—	—	Gain per stage = 140			
						Pentode Bias Detector	250	- 4.3	100	—	Cathode Current 0.43 ma.	—	Plate Resistor, 50000 ohms. Grid Resistor, ** 25000 ohms.	—	—	—		—	
6J8-G	Triode-Heptode Converter	D8	H	6.3	0.3	Triode Unit as Oscillator	100 250	—	Triode-Grid Resistor, 50000 ohms		4.0 5.8	11000 10500	1800 1900	20 20	—	—	6J8-G		
						Heptode Unit as Mixer	100 250	- 3.0 - 3.0	100 100	3.0 2.9	1.4 1.3	900000 4.0 \S	Conversion Transcond., 260 micromhos. Conversion Transcond., 290 micromhos.	—	—	—		—	
6K5-GT	High-Mu Triode	C3	H	6.3	0.3	Class A Amplifier	100 250	- 1.5 - 3.0	—	—	0.35 1.1	78000 50000	900 1400	70	—	6K5-GT			
6K6-GT	Power Pentode	C2b	H	6.3	0.4	Single-Tube Class A Amplifier	100 250 315	- 7.0 -18.0 -21.0	100 250 250	1.6 5.5 4.0	9.0 32.0 25.5	104000 90000 110000	1500 2300 2100	—	—	12000 9600 7000	0.35 3.40 4.50	6K6-GT	
						Push-Pull Class A Amplifier	285 285	-25.5 Cath. Bias	285 285	9.0 \blacklozenge 9.0 \blacklozenge	55.0 \blacklozenge 55.0 \blacklozenge	Cath. Bias Resistor, 400 ohms. \blacklozenge	—	—	—	—	12000 12000		10.5 \blacklozenge 9.8 \blacklozenge
6K7 6K7-G 6K7-GT	Remote-Cutoff Pentodes	C1 D8 C3	H	6.3	0.3	Class A Amplifier	100 250	- 1.0 - 3.0	100 125	2.7 2.6	9.5 10.5	150000 600000	1650 1650	—	—	6K7 6K7-G 6K7-GT			
6K8 6K8-G 6K8-GT	Triode-Hexode Converters	C1 D8 C10	H	6.3	0.3	Triode Unit as Oscillator	100	—	Triode-Grid Resistor, 50000 ohms		3.8	—	—	—	—	—	6K8 6K8-G 6K8-GT		
						Hexode Unit as Mixer	100 250	- 3.0 - 3.0	100 100	6.2 6.0	2.3 2.5	400000 600000	Conversion Transcond., 325 micromhos. Conversion Transcond., 350 micromhos.	—	—	—		—	
6L5-G	Medium-Mu Triode	D3	H	6.3	0.15	Class A Amplifier	135 250	- 5.0 - 9.0	—	—	3.5 8.0	11300 9000	1500 1900	17 17	—	6L5-G			
6L6 6L6-G	Beam Power Tubes	D7 E2	H	6.3	0.9	Single-Tube Class A Amplifier	250 250	-14.0 Cath. Bias	250 250	5.0 5.4	72.0 75.0	—	—	—	2500 2500	6.5 6.5	6L6 6L6-G		
						Push-Pull Class A Amplifier	270 270	-17.5 Cath. Bias	270 270	11.0 \blacklozenge 11.0 \blacklozenge	134.0 \blacklozenge 134.0 \blacklozenge	Cath. Bias Resistor, 170 ohms. \blacklozenge	—	—	—	—		5000 5000	17.5 \blacklozenge 18.5 \blacklozenge
6L6-GB	Beam Power Tubes	D6	H	6.3	0.9	Push-Pull Class AB ₁ Amplifier	360 360	-22.5 Cath. Bias	270 270	5.0 \blacklozenge 5.0 \blacklozenge	88.0 \blacklozenge 88.0 \blacklozenge	—	—	—	6000 9600	26.5 \blacklozenge 24.5 \blacklozenge	6L6-GB		
						Push-Pull Class AB ₂ Amplifier	360 360	-18.0 Cath. Bias	225 270	3.5 \blacklozenge 5.0 \blacklozenge	78.0 \blacklozenge 88.0 \blacklozenge	Cath. Bias Resistor, 250 ohms. \blacklozenge	—	—	—	—		6000 3800	31.0 \blacklozenge 47.0 \blacklozenge
6L7 6L7-G	Pentagrid Mixers	C1 D8	H	6.3	0.3	Mixer in Superheterodyne	250	- 3.0	100	7.1	2.4	—	—	—	—	6L7 6L7-G			
6N6-G	Direct-Coupled Power Triode	D11b	H	6.3	0.8	Class A Amplifier	Output Triode: Plate Volts, 300; Plate Ma., 45; Load, 7000 ohms. Input Triode: Plate Volts, 300; Grid Volts, 0; A-F Signal Volts (Peak), 21; Plate Ma., 8.											4.0	6N6-G
6N7 6N7-GT	High-Mu Twin Power Triodes	C2 C2b	H	6.3	0.8	Class A Amplifier (as Driver)	250 294	- 5.0 - 6.0	—	—	6.0 7.0	11300 11000	3100 3200	35 35	20000 or more	exceeds 0.4	6N7 6N7-GT		
6P5-GT	Medium-Mu Triode	C2b	H	6.3	0.3	Amplifier Detector	For other characteristics, refer to Type 76.											6P5-GT	
6P7-G	Triode-Pentode	D8	H	6.3	0.3	Amplifier and Converter	For other characteristics, refer to Type 67.											6P7-G	
6Q7 6Q7-G 6Q7-GT	Twin-Diode High-Mu Triodes	C1 D8 C3	H	6.3	0.3	Triode Unit as Class A Amplifier	100 250	- 1.0 - 3.0	—	—	0.8 1.1	58000 58000	1200 1200	70 70	—	—	6Q7 6Q7-G 6Q7-GT		
6R7 6R7-G 6R7-GT	Twin-Diode Medium-Mu Triodes	C1 D8 C2b	H	6.3	0.3	Triode Unit as Class A Amplifier	250 300 \times	- 9.0 Cath. Bias, 5400 ohms. Cath. Bias, 5000 ohms.	—	—	9.5	8500	1900	16	—	—	6R7 6R7-G 6R7-GT		
6S4 6S4-A	Medium-Mu Triode	B3 H \bullet	H	6.3	0.6	Vertical Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 500 Max. DC Cathode Ma., 30											6S4 6S4-A	
6S7 6S7-G	Remote-Cutoff Pentodes	C1 D8	H	6.3	0.15	Class A Amplifier	135 250	- 3.0 - 3.0	67.5 100	0.9 2.0	3.7 8.5	1.0 \S 1.0 \S	1250 1750	—	—	6S7 6S7-G			
6S8-GT	Triple-Diode Triode	C9a	H	6.3	0.3	Triode Unit as Class A Amplifier	100 250	- 1.0 - 2.0	—	—	0.4 0.9	110000 91000	900 1100	100 100	—	6S8-GT			
6SA7 6SA7-GT	Pentagrid Converter	B2 C3	H	6.3	0.3	Mixer	100 250	Self-Excited	100 100	8.5 8.5	3.3 3.5	500000 1.0 \S	Grid-No. 1 Resistor, 20000 ohms. Conversion Transcond., 450 micromhos.	—	—	6SA7 6SA7-GT			
6SB7-Y	Pentagrid Converter	B2	H	6.3	0.3	Mixer	100 250	- 1.0 - 1.0	100 100	10.2 10.0	3.6 3.8	500000 1.0 \S	Grid-No. 1 Resistor, 20000 ohms. Conversion Transcond., 950 micromhos	—	—	6SB7-Y			
6SC7	Twin-Triode Amplifier	B2	H	6.3	0.3	Each Unit as Amplifier	250	- 2.0	—	—	2.0	53000	1325	70	—	6SC7			
6SF5 6SF5-GT	High-Mu Triodes	B2 C2b	H	6.3	0.3	Class A Amplifier	100 250	- 1.0 - 2.0	—	—	0.4 0.9	85000 66000	1150 1500	100 100	—	—	6SF5 6SF5-GT		
6SF7	Diode-Remote-Cutoff Pentode	B2	H	6.3	0.3	Pentode Unit as Class A Amplifier	100 250	- 1.0 - 1.0	100 100	4.3 4.1	13.5 13.9	200000 700000	1975 2050	—	—	6SF7			
6SG7	Remote-Cutoff Pentode	B2	H	6.3	0.3	Class A Amplifier	100 250 250	- 1.0 - 1.0 - 2.5	100 125 150	3.2 4.4 3.4	8.2 11.8 9.2	250000 900000 1.0 \S	4100 4700 4000	—	—	6SG7			
6SH7	Sharp-Cutoff Pentode	B2	H	6.3	0.3	Class A Amplifier	100 250	- 1.0 - 1.0	100 150	2.1 4.1	5.3 10.8	350000 900000	4000 4900	—	—	6SH7			
6SJ7 6SJ7-GT	Sharp-Cutoff Pentodes	B2 C3	H	6.3	0.3	Class A Amplifier	100 250	- 3.0 - 3.0	100 100	0.9 0.8	2.9 3.0	700000 1.0 \S	1575 1650	—	—	6SJ7 6SJ7-GT			
6SK7 6SK7-GT	Remote-Cutoff Pentodes	B2 C3	H	6.3	0.3	Class A Amplifier	100 250	- 1.0 - 3.0	100 100	4.0 2.6	13.0 9.2	120000 800000	2350 2000	—	—	6SK7 6SK7-GT			
6SL7-GT	High-Mu Twin Triode	C2b	H	6.3	0.3	Each Unit as Class A Amplifier	250	- 2.0	—	—	2.3	44000	1600	70	—	6SL7-GT			

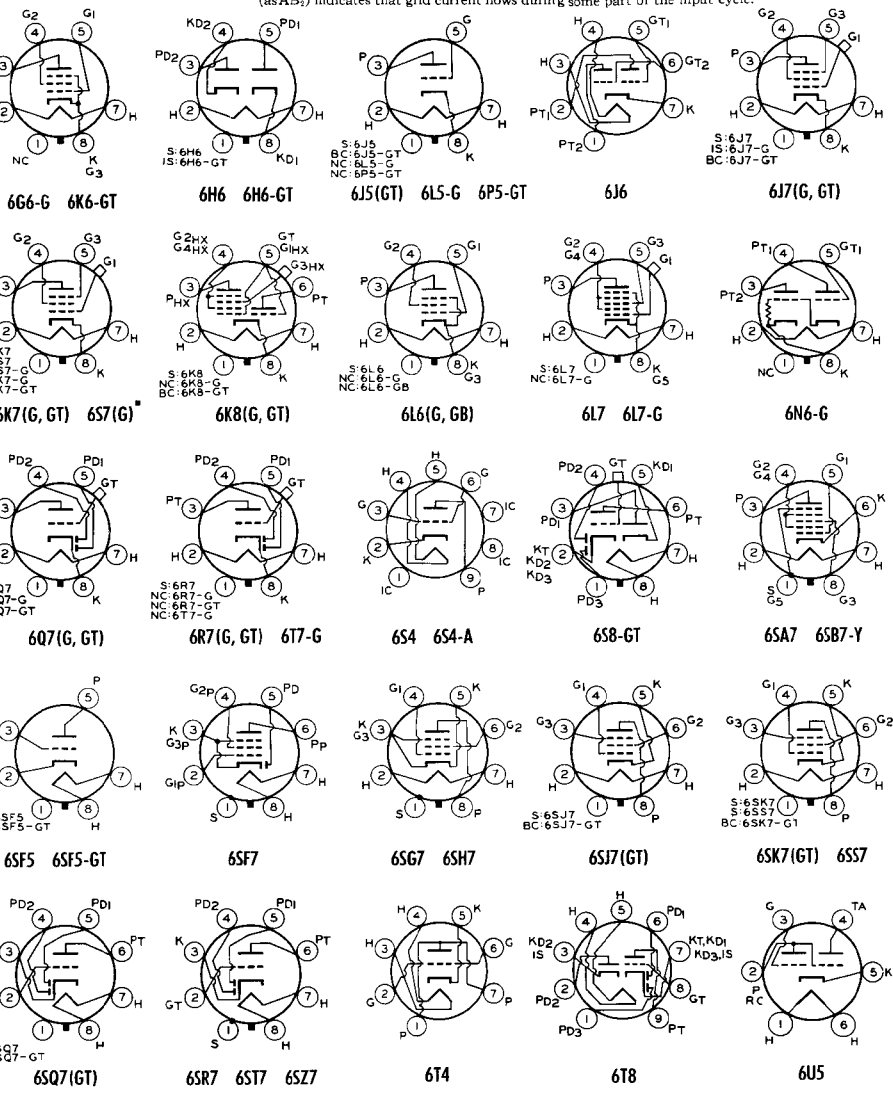
For data on RCA Picture Tubes see pages 30 through 35.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating		Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ ms	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts												
6SN7-GT 6SN7-GTA 6SN7-GTB	Medium-Mu Twin Triodes	C2b	H H H	6.3	0.6	90 250	0 - 8.0			10.0 9.0	6700 7700	3000 2600	20 20			6SN7-GT 6SN7-GTA 6SN7-GTB
6SQ7 6SQ7-GT	Twin-Diode High-Mu Triodes	B2 C3	H H	6.3	0.3	100 250 300*	- 1.0 - 2.0 Cath. Bias, 11000 ohms. Cath. Bias, 3900 ohms.			0.5 1.1	110000 85000	925 100	100 100			6SQ7 6SQ7-GT
6SR7	Duplex-Diode Triode	B2	H	6.3	0.3	250	- 9.0			9.5	8500	1900	16	10000	0.3	6SR7
6SS7	Remote-Cutoff Pentode	B2	H	6.3	0.15	100 250	- 1.0 - 3.0	100 100	3.1 2.0	12.2	120000 1.0 \S	1930 1850				6SS7
6ST7	Duplex-Diode Triode	B2	H	6.3	0.15											6ST7
6SZ7	Twin-Diode High-Mu Triode	B2	H	6.3	0.15	100 250	- 1.0 - 3.0			0.8 1.0	61000 58000	1150 1200	70 70			6SZ7
6T4	Medium-Mu Triode	A1	H	6.3	0.225	100 250	- 1.0 - 3.0			0.8 1.0	61000 58000	1150 1200	70 70			6T4
6T7-G	Twin-Diode High-Mu Triode	D8	H	6.3	0.15	135 250	- 1.5 - 3.0			0.9 1.2	65000 62000	1000 1050	65 65			6T7-G
6T8	Triple-Diode High-Mu Triode	B0a	H	6.3	0.45	100 250	- 1 - 3			0.8 1.0	54000 58000	1300 1200	70 70			6T8
6U5	Electron-Ray Tube	D4	H	6.3	0.3											6U5

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.
Two vertical rules before or after type No. = Metal type. Light Face = Discontinued type.
One vertical rule before or after type No. = GT or other larger glass type.
For key to tube dimensions and legend for base and envelope connection diagrams, see pages 34 and 35.

Supply voltage applied through 20000-ohm voltage-dropping resistor.
Grids # 2 and # 4 are screen. Grid # 1 is signal-input control grid.
Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.
Note 1: Subscript 1 on class of amplifier service (as AB₁) indicates that grid current does not flow during any part of input cycle. Note 2: Subscript 2 on class of amplifier service (as AB₂) indicates that grid current flows during some part of the input cycle.

- Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/2 (approx.) of filament voltage.
- Heater has controlled warm-up time for series-string operation.
- For signal-input control-grid (# 1); control-grid # 3 bias, -3 volts. Grids # 2 and # 3 tied to plate.
- Both grids connected together; likewise, both plates.
- Grid # 2 tied to plate. ** For grid of following tube.
- Applied through plate resistor of 100000 ohms.
- Applied through plate resistor of 250000 ohms.
- Power output is for two tubes at stated plate-to-plate load.
- For two tubes. § Megohms. + Each unit.



Pin No. 8 includes an internal shield.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type	
			C. T.	Volts	Ang.													
6U7-G	Remote-Cutoff Pentode	D13	H	6.3	0.3	Class A Amplifier	100 250	- 3.0 - 3.0	100 100	2.2 2.0	8.0 8.2	250000 800000	1500 1600				6U7-G	
6U8 6U8-A	Triode-Remote-Cutoff Pentodes	B0a	H	6.3	0.45	Triode Unit as Class A Amplifier Pentode Unit as Class A Amplifier	150 250	Cath. Bias Cath. Bias	100 110	18 3.5	10	5000 40000	8500 5200	40	Cath. Res., 56 ohms Cath. Res., 68 ohms		6U8 6U8-A	
6V3-A	Half-Wave Rectifier	B4a	H	6.3	1.75	Television Damper Service	Max. Peak Inverse Plate Volts, 6000 (Abs.) Max. Peak Plate Ma., 800 Max. DC Plate Ma., 135		Max. Peak Heater-Cathode Volts (±300) *DC component not to exceed - 750 volts							6V3-A		
6V6 6V6-GT	Beam Power Tubes	C2 C2b	H	6.3	0.45	Single-Tube Class A Amplifier Push-Pull Class AB ₁ Amplifier	180 250 315	- 8.5 -12.5 -13.0	180 250 225	3.0 4.5 2.2	29.0 45.0 34.0	50000 50000 80000	3700 4100 3750		5500 5000 8500	2.0 4.5 5.5	6V6 6V6-GT	
6V7-G	Duplex-Diode Triode	D8	H	6.3	0.3	Triode Unit as Amplifier	For other characteristics, refer to Type 85.										6V7-G	
6W4-GT	Half-Wave Rectifier	C2b	H	6.3	1.2	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 350 Max. Peak Inverse Volts 3500 ϕ , 1250		Max. DC Output Ma., 125 ϕ Max. Peak Plate Ma., 600 ϕ		Min. Total Effect. Supply Imped. per Plate, 145 ohms.					6W4-GT		
6W6-GT	Beam Power Amplifier	C2b	H	6.3	1.2	Vertical Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 300 Max. Peak Dissipation, 7.5 watts		Max. Peak Positive-Pulse Plate Volts, 1200 Max. Peak Negative-Pulse Grid Volts, 250							6W6-GT		
6W7-G	Sharp-Cutoff Pentode	D8	H	6.3	0.15	Class A Amplifier	250	- 3.0	100	0.5	2.0	1.5 Ω	1225				6W7-G	
6X4 6X5 6X5-GT	Full-Wave Rectifiers	B1 C2 C2b	H	6.3	0.6	With Capacitive-Input Filter With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250		Max. DC Output Ma., 70 Max. Peak Plate Ma., 210		Total Effect. Supply Imped. per Plate, 520 ohms Min. Value of Input Choke, 10 henries					6X4 6X5 6X5-GT		
6X8	Triode-Pentode Converter	B0a	H	6.3	0.45	Triode Unit as 250-Mc. Oscillator Pentode Unit as Mixer	150		Grid Resistor, 2700 ohms Grid Current, 3.6 ma.	Plate Current, 13 ma. Power Output (Approx.), 0.5 watt		Osc. Volts at Mixer Grid No. 1 (RMS), 2.6 Mixer Grid-No. 1 Resistor, 120000 ohms Conversion Transconductance, 2100 μ mhos					6X8	
6Y5 6Y6-G	Full-Wave Rectifier Beam Power Tube	D5 D11b	H	6.3	0.8 1.25	With Capacitive-Input Filter Single-Tube Class A Amplifier	135 200	-13.5 -14.0	135 135	3.5 2.2	58.0 61.0	9300 18300	7000 7100		2000 2600	3.6 6.0	6Y5 6Y6-G	
6Y7-G	Twin-Triode Amplifier	D3	H	6.3	0.6	Class B Amplifier	For other characteristics, refer to Type 79.										6Y7-G	
6Z5	Full-Wave Rectifier	D5	H	6.3 12.6	0.8 0.4	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 230 Max. DC Output Ma., 60									6Z5		
6Z7-G	Twin-Triode Amplifier	D3	H	6.3	0.3	Class B Amplifier	135 180	0 0						Power Output is for one tube at stated plate-to-plate load.		9000 12000	2.5 4.2	6Z7-G
6ZY5-G	Full-Wave Rectifier	D3	H	6.3	0.3	With Capacitive-Input Filter With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250		Max. DC Output Ma., 40 Max. Peak Plate Ma., 120		Min. Total Effect. Supply Imped. per Plate, 225 ohms Min. Value of Input Choke, 13.5 henries					6ZY5-G		
7A4 7A5 7A6 7A7 7A8 7AD7 7AF7 7AG7 7AH7 7AU7	Medium-Mu Triode Beam Power Tube Twin Diode Remote-Cutoff Pentode Octode Converter Power Pentode Medium-Mu Twin Triode Sharp-Cutoff Pentode Sharp-Cutoff Pentode Medium-Mu Twin-Triode	B5 C2a B5 B5 C2a B5 B5 B5 B0a	H H H H H H H H H	6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	0.3 0.75 0.15 0.3 0.15 0.3 0.15 0.15 0.3	Class A Amplifier Detector Rectifier Class A Amplifier Converter Class A Amplifier Each Unit as Class A Amplifier Class A Amplifier Class A Amplifier Class A Amplifier Each Unit as Class A Amplifier	110 125	- 7.5 - 9.0	110 125	3.0 3.3	40.0 44.0	16000 17000	5800 6000	2500 2700	1.5 2.2	7A4 7A5 7A6 7A7 7A8 7AD7 7AF7 7AG7 7AH7 7AU7		
7B4 7B5 7B6 7B7 7B8 7C5 7C6 7C7	High-Mu Triode Power Amplifier Pentode Twin-Diode High-Mu Triode Remote-Cutoff Pentode Pentagrid Converter Beam Power Tube Twin-Diode High-Mu Triode Sharp-Cutoff Pentode	B5 C2a B5 B5 B5 C2a B5	H H H H H H H	6.3 6.3 6.3 6.3 6.3 6.3 6.3	0.3 0.4 0.3 0.15 0.3 0.45 0.15	Class A Amplifier Class A Amplifier Triode Unit as Amplifier Class A Amplifier Converter Class A Amplifier Class A Amplifier	250	- 3.0	100	1.7	8.5	750000	1750			7B4 7B5 7B6 7B7 7B8 7C5 7C6 7C7		
7E6 7E7 7F7 7F8 7G7 7H7 7J7 7K7	Twin-Diode Triode Twin-Diode Pentode Twin-Triode Amplifier Twin-Triode Amplifier Sharp-Cutoff Pentode Sharp-Cutoff Pentode Triode-Heptode Converter Twin-Diode-High-Mu Triode	B5 B5 B5 B0b B5 B5 B5 B5	H H H H H H H H	6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	0.3 0.3 0.3 0.3 0.45 0.3 0.3 0.3	Class A Amplifier Pentode Unit as Class A Amplifier Each Unit as Amplifier Each Unit as Class A Amplifier Class A Amplifier Class A Amplifier Triode Unit as Oscillator Heptode Unit as Mixer Triode Unit as Class A Amplifier	100 250	0 - 8.5	100 250	2.7 1.6	10.0 7.5	150000 700000	1600 1300	Cath. Res., 800 ohms Cath. Res., 330 ohms		7E6 7E7 7F7 7F8 7G7 7H7 7J7 7K7		

For data on RCA Picture Tubes see pages 30 through 35.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ hos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type	
			C. T.	Volts	Amp.													
7L7	RF Amplifier Pentode	B5	H	6.3	0.3	Class A Amplifier	100 250	- 1.0 - 1.5	100 100	2.4 1.5	3.3 4.5	500000 1.0§	3000 3100				7L7	
7N7	Twin-Triode Amplifier	C2a	H	6.3	0.6	Each Unit as Class A Amplifier	For other characteristics, refer to Type 6SN7-GT										7N7	
7Q7	Pentagrid Converter	B5	H	6.3	0.3	Converter	100 250	- 2.0 - 2.0	100 100	8.5 3.5	3.3 3.5	500000 1.0§	Grid #1 Resistor, 20000 ohms. Conversion Transcond., 550 μ hos.				7Q7	
7R7	Twin-Diode Pentode	B5	H	6.3	0.3	Pentode Unit as Class A Amplifier	100 250	- 1.0 - 1.0	100 100	2.2 2.1	5.5 5.7	350000 1.0§	3000 3200				7R7	
7S7	Triode-Heptode Converter	B5	H	6.3	0.3	Triode Unit as Oscillator	100 250	- 2.0 - 2.0	100 100	3.0 3.0	1.9 1.8	500000 1.25§	3.0 5.0	Triode-Grid & Heptode-Grid Current, 0.3 ma. Triode-Grid & Heptode-Grid Current, 0.4 ma.				7S7
						Heptode Unit as Mixer	100 250	- 2.0 - 2.0	100 100	3.0 3.0	1.9 1.8	500000 1.25§	Conversion Transcond., 500 μ hos. Conversion Transcond., 525 μ hos.					
7V7	RF Amplifier Pentode	B5	H	6.3	0.45	Class A Amplifier	300		150	3.9	10.0	300000	5800	Cath. Bias Res., 160 ohms			7V7	
7W7	RF Amplifier Pentode	B5	H	6.3	0.45	Class A Amplifier	For other characteristics, refer to Type 7V7.										7W7	
7X7	Twin Diode-High-Mu Triode	C2a	H	6.3	0.3	Triode Unit as Class A Amplifier	100 250	0 - 1.0			1.2 1.9	85000 67000	1000 1500	85 100			7X7	
7Y4	Full-Wave Rectifier	B5	H	6.3	0.5	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 325		Max. DC Output Ma., 70		Min. Total Effect. Supply Imped. per Plate, 150 ohms.						7Y4	
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450		Max. DC Output Ma., 70		Min. Value of Input Choke, 10 henries							
7Z4	Full-Wave Rectifier	C2a	H	6.3	0.9	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 325		Max. DC Output Ma., 100		Min. Total Effect. Supply Imped. per Plate, 75 ohms						7Z4	
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450		Max. DC Output Ma., 100		Min. Value of Input Choke, 6 henries							

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Two vertical rules before or after type No. = Metal type.

One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see pages 34 and 35.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/2 (approx.) of filament voltage.

† Power output is for two tubes at stated plate-to-plate load.

♣ For two tubes.

§ Megohms.

● Heater has controlled warm-up time for series-string operation.

▲ Supply voltage applied through 20000-ohm voltage-dropping resistor.

▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.

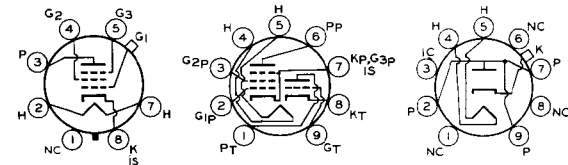
▲ Grids # 3 and # 5 are screen. Grid # 4 is signal-input control grid.

♠ For television damper service.

▲ 50000 ohms.

√ With separate excitation and triode unit grounded.

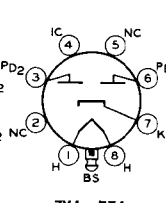
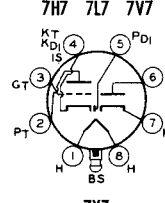
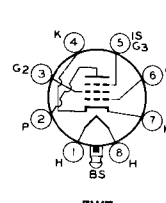
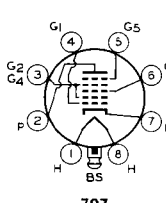
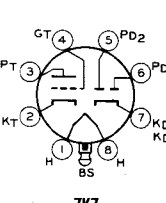
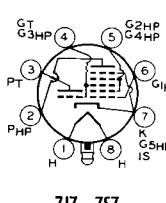
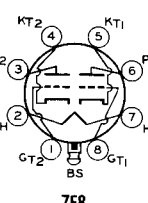
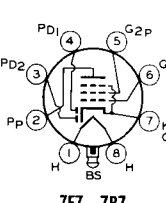
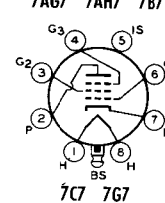
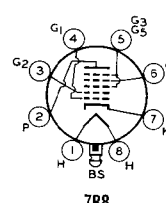
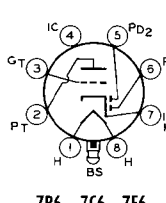
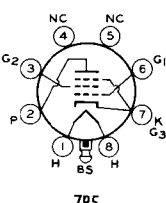
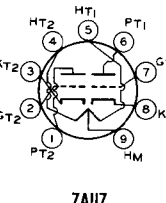
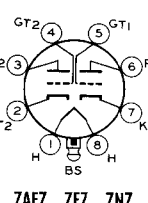
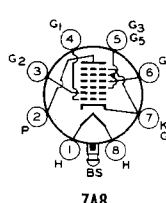
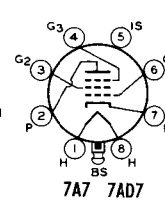
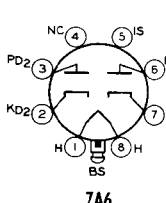
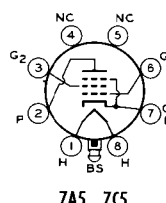
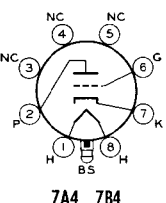
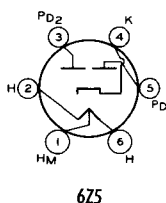
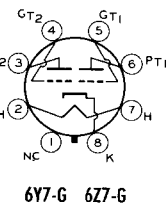
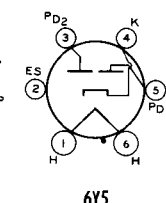
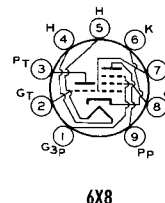
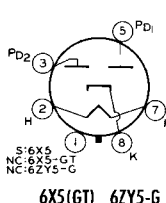
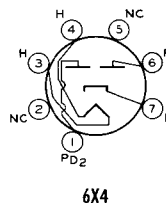
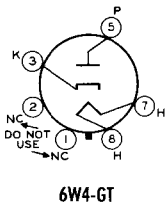
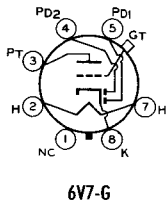
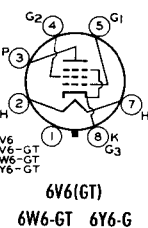
Note 1: Subscript 1 on class of amplifier service (as AB₁) indicates that grid current does not flow during any part of input cycle.



6U7-G 6W7-G

6U8 6U8-A

6V3-A



Type	Name	Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type
			C.T.	Volts	Amp.												
8AW8-A	High-Mu Triode Sharp-Cutoff Pentode	83	H	8.4	0.45	200	- 2	—	—	4	17500	4000	70	—	—	8AW8-A	
8CG7	Medium-Mu Twin Triode	83	H	8.4	0.45	200	Cath. Bias	150	3.5	13	400000	9000	—	Cath. Bias Res., 180 ohms	—	8CG7	
8CM7	Dual Triode With Dissimilar Units	83	H	8.4	0.45	200	—	—	—	—	—	—	—	—	—	8CM7	
10	Power Amplifier Triode	E3	F	7.5	1.25	200	—	—	—	—	—	—	—	—	—	10	
10DE7	Dual Triode With Dissimilar Units	83	H	10.0	0.6	200	—	—	—	—	—	—	—	—	—	10DE7	
11 12	Detector Amplifier Triode	D2a D12	D.C. F	1.1	0.25	90 135	- 4.5 -10.5	—	—	2.5 3.0	15500 15000	425 440	6.6 6.6	—	—	11 12	
12A5	Power Amplifier Pentode	D5	H	6.3 12.6	0.6 0.3	100 180	-15.0 -25.0	100 180	3.0 8.0	17.0 45.0	50000 35000	1700 2400	—	—	4500 3300	0.8 3.4	12A5
12A7	Rectifier-Pentode	D9	H	12.6	0.3	135	-13.5	135	2.5	9.0	102000	975	—	—	13500	0.55	12A7
12A8-GT	Pentagrid Converter	C3	H	12.6	0.15	—	—	—	—	—	—	—	—	—	—	12A8-GT	
12AB5	Beam Power Tube	83	H	10.0 to 15.9	0.2 approx.	250	Cath. Bias	200	1.6	33.5	Cath. Bias Res., 270 ohms	6000	3.3	—	—	12AB5	
12AD6	Pentagrid Converter	80	H	10.0 to 15.9	0.15 approx.	12.6	Self-excited	12.6	1.5	0.45	1§	Grid-No. 1 Resistor, 33000 ohms	—	—	—	12AD6	
12AE6	Twin Diode Medium-Mu Triode	80	H	10.0 to 15.9	0.15 approx.	12.6	0	—	—	0.75	15000	1000	15	—	—	12AE6	
12AF6	Sharp-Cutoff Pentode	80	H	10.0 to 15.9	0.15 approx.	12.6	Grid-No. 1 Supply Volts, 0	12.6	0.3	0.8	300000	1250	—	—	—	12AF6	
12AH7-GT	Twin Triode	C0a	H	12.6	0.15	100 180	- 3.6 - 6.5	—	—	3.7 7.6	10300 8400	1550 1900	16 16	—	—	12AH7-GT	
12AJ6	Twin Diode Medium-Mu Triode	80	H	10.0 to 15.9	0.15 approx.	12.6	0	—	—	0.75	45000	1200	55	—	—	12AJ6	
12AL5	Twin-Diode	A1	H	12.6	0.15	—	—	—	—	—	—	—	—	—	—	12AL5	
12AQ5	Beam Power Tube	B1	H	12.6	0.225	—	—	—	—	—	—	—	—	—	—	12AQ5	
12AT6	Twin-Diode High-Mu Triode	80	H	12.6	0.15	—	—	—	—	—	—	—	—	—	—	12AT6	
12AT7	High-Mu Twin Triode	80a	H	6.3 12.6	0.3 0.15	100 250	Cath. Res., 270 ohms	—	—	3.7 10.0	15000 10900	4000 5500	60 60	—	—	12AT7	
12AU6	Sharp-Cutoff Pentode	80	H	12.6	0.15	—	—	—	—	—	—	—	—	—	—	12AU6	
12AU7 12AU7-A	Medium-Mu Twin Triodes	80a	H	6.3 12.6	0.3 0.15	100 250	0 - 8.5	—	—	11.8 10.5	6500 7700	3100 2200	20 17.5	—	—	12AU7 12AU7-A	
12AV6	Twin-Diode High-Mu Triode	80	H	12.6	0.15	—	—	—	—	—	—	—	—	—	—	12AV6	
12AV7	Medium-Mu Twin Triode	80a	H	5.3 12.6	0.45 0.225	150	Cathode Bias Res., 56 ohms	—	—	18	48000	8500	41	Cutoff Volts, -12	—	12AV7	
12AW6	Sharp-Cutoff Pentode	80	H	12.6	0.15	—	—	—	—	—	—	—	—	—	—	12AW6	
12AX4-GT 12AX4-GTA	Half-Wave Rectifiers	C2b	H	12.6	0.6	—	—	—	—	—	—	—	—	—	—	12AX4-GT 12AX4-GTA	
12AX7	High-Mu Twin Triode	80a	H	6.3 12.6	0.3 0.15	100 250	- 1.0 - 2.0	—	—	0.5 1.2	80000 62500	1250 1600	100 100	—	—	12AX7	
12AZ7	High-Mu Twin Triode	80a	H	6.3 12.6	0.45 0.225	100 250	Cath. Bias Res., 270 ohms	—	—	3.7 10.0	15000 10900	4000 5500	60 60	—	—	12AZ7	
12B4-A	Low-Mu Triode	83	H	6.3 12.6	0.6 0.3	—	—	—	—	—	—	—	—	—	—	12B4-A	
12B8-GT	Triode-Pentode	C10a	H	12.6	0.3	90	0	—	—	2.8	37000	2400	90	—	—	12B8-GT	
12BA6	Remote-Cutoff Pentode	80	H	12.6	0.15	—	—	—	—	—	—	—	—	—	—	12BA6	
12BA7	Pentagrid Converter	83	H	12.6	0.15	—	—	—	—	—	—	—	—	—	—	12BA7	
12BD6	Remote-Cutoff Pentode	80	H	12.6	0.15	—	—	—	—	—	—	—	—	—	—	12BD6	
12BE6	Pentagrid Converter	80	H	12.6	0.15	—	—	—	—	—	—	—	—	—	—	12BE6	
12BF6	Twin-Diode Triode	80	H	12.6	0.15	250	- 9.0	—	—	9.5	8500	1900	16	—	Power Output, 300 milliwatts	12BF6	
12BH7 12BH7-A	Medium-Mu Twin Triodes	83	H	5.3 12.6	0.6 0.3	—	—	—	—	—	—	—	—	—	—	12BH7 12BH7-A	
12BL6	Sharp-Cutoff Pentode	80	H	10.0 to 15.9	0.15 approx.	12.6	Grid-No. 1 Supply Volts, 0	12.6	0.5	1.35	500000	1350	—	—	—	12BL6	
12BQ6- GTB/ 12CU6	Beam Power Tube	C11	H	12.6	0.6	—	—	—	—	—	—	—	—	—	—	12BQ6- GTB/ 12CU6	
12BR7	Twin Diode High-Mu Triode	80a	H	6.3 12.6	0.45 0.225	100 250	Cath. Bias Cath. Bias.	—	—	3.7 10	15000 10900	4000 5500	60 60	Cath. Bias Res., 270 ohms	—	12BR7	
12BV7	Sharp-Cutoff Pentode	83	H	6.3 12.6	0.6 0.3	250	Cath. Bias - 8	150	6	27	85000	13000	—	—	—	12BV7	

For data on RCA Picture Tubes see pages 30 through 35.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
12BY7 12BY7-A	Sharp-Cutoff Pentodes	B3	H H \bullet	6.3 12.6	0.6 0.3	250	Cath. Bias	150	6	25	110000	12000		Cath. Res., 68 ohms		12BY7 12BY7-A	
12BZ7	High-Mu Twin Triode	B3	H	6.3 12.6	0.6 0.3	250	- 2			2.5	31800	3200	100			12BZ7	
12C8	Twin-Diode Pentode	C1	H	12.6	0.15	250	- 3.0	125	2.3	10.0	600000	1325				12C8	
						90 \times 300 \times	Cath. Bias, 3500 ohms. Screen Resistor = 1.1 meg. Grid Resistor, ** Gain per stage = 55 Cath. Bias, 1600 ohms. Screen Resistor = 1.2 meg. / 0.5 megohm. Gain per stage = 79										
12CA5	Beam Power Tube	B1	H \bullet	12.6	0.6	110 125	- 4 - 4.5	110 125	3.5 4.0	32 37	16000 15000	8100 9200		3500 4500	1.1 1.5	12CA5	
12CR6	Diode Remote-Cutoff Pentode	B0	H	12.6	0.15	250	- 2	100	2.6	9.6	800000	2200		Grid-No. 1 Volts for trans-conduct. of 10 micromhos, - 32		12CR6	

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Two vertical rules before or after type No. = Metal type.

One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see pages 34 and 35.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/2 (approx.) of filament voltage.

† Power output is for two tubes at stated plate-to-plate load.

♣ For two tubes.

§ Megohms.

● Heater has controlled warm-up time for series-string operation.

● Superseded by 10-Y. See Power and Gas Tubes Booklet PG-101C.

○ For use in automobile receivers which use transistors in the output stage; with tube and transistor electrode voltages supplied directly from a 12.6-volt storage battery.

★ For Grid-leak Detection—plate volts, 45; grid return to + filament or to cathode.

▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.

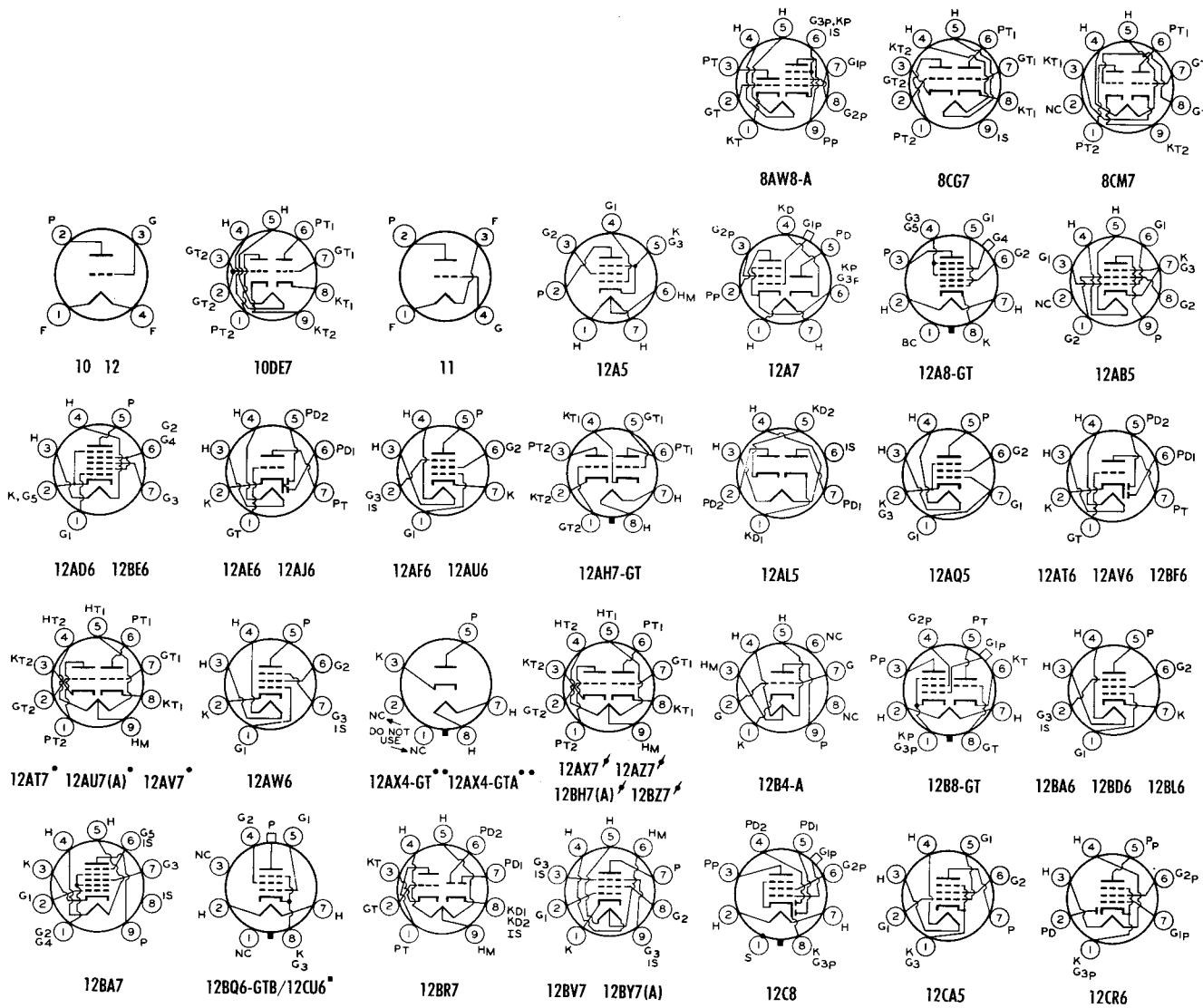
■ Grids # 3 and # 5 are screen. Grid # 4 is signal-input control grid.

** For grid of following tube.

✱ Applied through plate resistor of 250000 ohms.

□ Grid # 2 tied to plate.

Note 1: Subscript 1 on class of amplifier service (as AB₁) indicates that grid current does not flow during any part of input cycle.



† Heater for section 2 between pins 4 and 9; for section 1 between pins 5 and 9.

● On the 6-pin bases pin 1 as well as 6 is omitted.

●● On the 5-pin bases, pin 1 as well as pin 4 and 6 is omitted.

● Heater for section 2 between pins 4 and 9; for section 1 between pins 5 and 9.

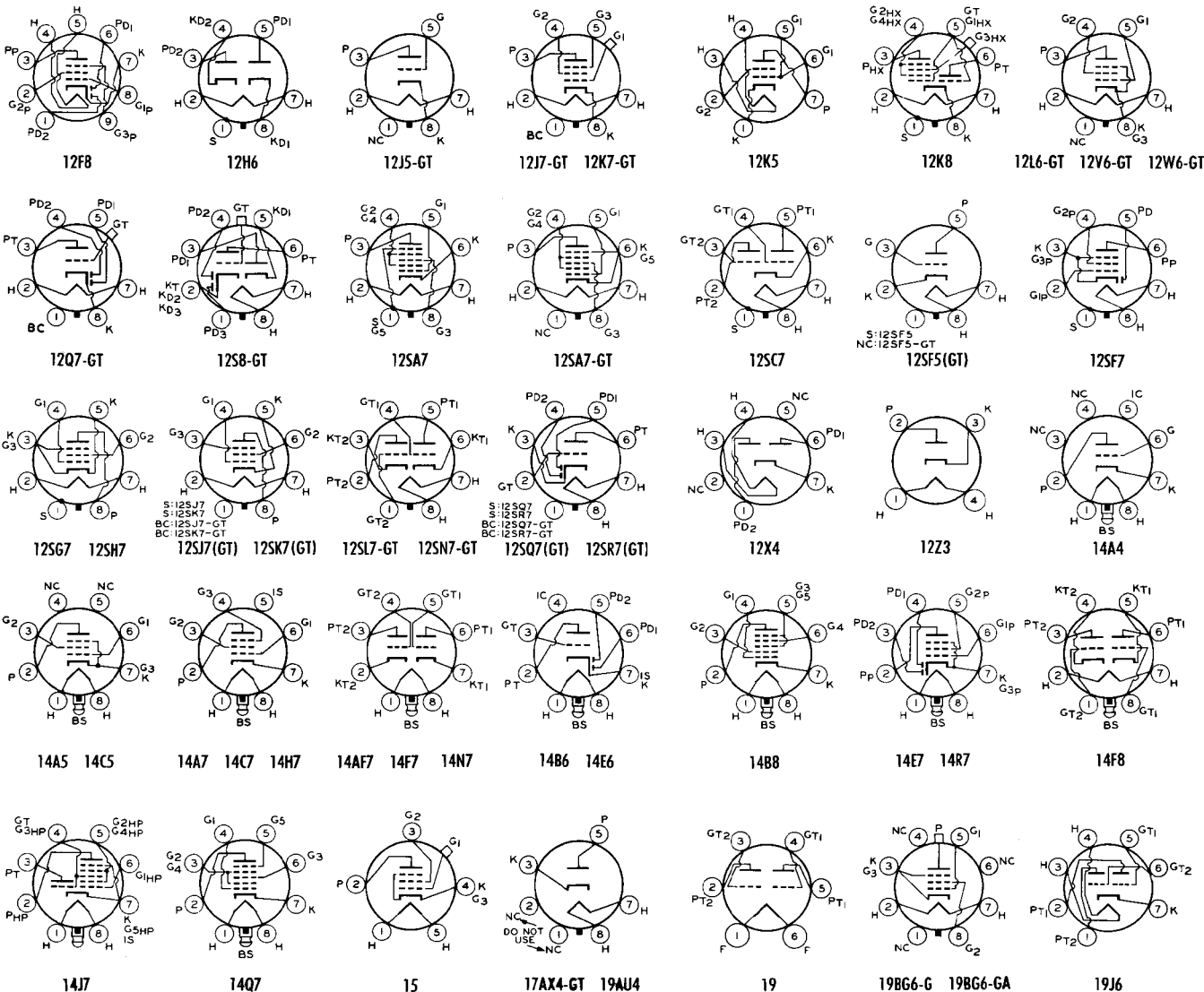
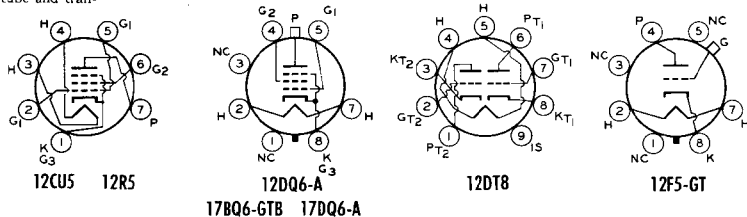
RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
12CU5	Beam Power Tube	B1	H	12.6	0.6	Class A Amplifier	120	- 8	110	4	49	10000	7500		2500	2.3	12CU5
12DQ6-A	Beam Power Tube	D6	H	12.6	0.6	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 700 Max. DC Cathode Ma., 140		Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 15 watts								12DQ6-A
12DT8	High-Mu Twin Triodes	B0a	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6DT8.										12DT8
12F5-GT	High-Mu Triode	C2b	H	12.6	0.15	Amplifier	For other characteristics, refer to Type 6F5.										12F5-GT
12F8	Twin Diode Remote-Cutoff Pentode	B0a	H	10.0 to 15.9	0.15 approx.	Pentode Unit as Class A Amplifier	12.6	0	12.6	0.38	1	330000	1000	Grid-No. 1 Volts for transcond. of 10 micromhos, -5			12F8
12H6	Twin-Diode	A1a	H	12.6	0.15	Detector Rectifier	For other ratings, refer to Type 6H6.										12H6
12J5-GT	Medium-Mu Triode	C3	H	12.6	0.15	Amplifier	For other characteristics, refer to Type 6J5.										12J5-GT
12J7-GT	Sharp-Cutoff Pentode	C3	H	12.6	0.15	Amplifier	For other characteristics, refer to Type 6J7.										12J7-GT
12K5	Power Tetrode	B1	H	10.0 to 15.9	0.4 approx.	Class A Amplifier	12.6	12.6	-0.5		40	480	Grid-No. 1 Ma., 75 Transcond., Grid-No. 2 to Plate, 15000 μ mhos			12K5	
12K7-GT	Remote-Cutoff Pentode	C3	H	12.6	0.15	Amplifier	For other characteristics, refer to Type 6K7.										12K7-GT
12K8	Triode-Hexode Converter	C1	H	12.6	0.15	Oscillator Mixer	For other characteristics, refer to Type 6K8.										12K8
12L6-GT	Beam Power Tube	C2b	H	12.6	0.6	Class A Amplifier	110 200	- 7.5 Δ	110 125	4.0 2.2	49 46	13000 28000	8000 8000		2000 4000	2.1 3.8	12L6-GT
12Q7-GT	Twin-Diode High-Mu Triode	C3	H	12.6	0.15	Triode Unit as Amplifier	For other characteristics, refer to Type 6Q7.										12Q7-GT
12R5	Beam Power Tube	B1	H	12.6	0.6	Vertical Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 150 Max. Peak Cathode Ma., 155 Max. Plate Dissipation, 4.5 watts		Max. Peak Neg.-Pulse Grid-No. 1 Volts, 150 Max. Grid-No. 2 Volts, 150 Max. Peak Positive-Pulse Plate Volts, 1500 (Abs.)								12R5
12S8-GT	Triple-Diode-High-Mu Triode	C9a	H	12.6	0.15	Triode Unit as Class A Amplifier	100 250	- 1 - 2			0.4 0.9	110000 91000	900 1100	100 100			12S8-GT
12SA7	Pentagrid Converter	B2 C2b	H	12.6	0.15	Mixer	For other characteristics, refer to Type 6SA7.										12SA7 12SA7-GT
12SC7	Twin-Triode Amplifier	B2	H	12.6	0.15	Each Unit as Class A Amplifier	For other characteristics, refer to Type 6SC7.										12SC7
12SF5	High-Mu Triode	B2 C2b	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SF5.										12SF5 12SF5-GT
12SF7	Diode-Remote-Cutoff Pentode	B2	H	12.6	0.15	Pentode Unit as Amplifier	For other characteristics, refer to Type 6SF7.										12SF7
12SG7	Remote-Cutoff Pentode	B2	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SG7.										12SG7
12SH7	Sharp-Cutoff Pentode	B2	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SH7.										12SH7
12SJ7	Sharp-Cutoff Pentodes	B2 C3	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SJ7.										12SJ7 12SJ7-GT
12SK7	Remote-Cutoff Pentodes	B2 C3	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SK7.										12SK7 12SK7-GT
12SL7-GT	Twin-Triode Amplifier	C2b	H	12.6	0.15	Each Unit as Amplifier	For other characteristics, refer to Type 6SL7-GT.										12SL7-GT
12SN7-GT	Twin-Triode Amplifier	C2b	H	12.6	0.3	Each Unit as Amplifier	For other characteristics, refer to Type 6J5.										12SN7-GT
12SQ7	Twin-Diode High-Mu Triode	B2 C3	H	12.6	0.15	Triode Unit as Amplifier	For other characteristics, refer to Type 6SQ7.										12SQ7 12SQ7-GT
12SR7	Duplex-Diode Triode	B2 C2b	H	12.6	0.15	Triode Unit as Amplifier	For other characteristics, refer to Type 6SR7.										12SR7 12SR7-GT
12V6-GT	Beam Power Amplifier	C2b	H	12.6	0.225	Amplifier	For other characteristics, refer to Type 6V6.										12V6-GT
12W6-GT	Beam Power Tube	C2b	H	12.6	0.6	Vertical Deflection Amplifier in TV Receivers	Triode Connection: Max. DC Plate Volts, 300 Max. DC Cathode Ma., 40		Absolute Max. Peak Positive-Pulse Plate Volts, 1200 Max. Plate Dissipation, 7.5 Watts								12W6-GT
12X4	Full-Wave Rectifier	B1	H	12.6	0.225	Rectifier	For other characteristics, refer to Type 6X4.										12X4
12Z3	Half-Wave Rectifier	D5	H	12.6	0.3	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 235 Max. DC Output Ma., 55		Min. Total Effective Plate-Supply Impedance: Up to 117 volts, 0 ohms; at 150 volts, 30 ohms; at 235 volts, 75 ohms								12Z3
14A4	Medium-Mu Triode	B5	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6J5.										14A4
14A5	Beam Power Tube	B5	H	12.6	0.15	Class A Amplifier	250	- 12.5	250	3.5	30	70000	3000		7500	2.8	14A5
14A7	Remote-Cutoff Pentode	B5	H	12.6	0.15	Class A Amplifier	100 250	- 1.0 - 3.0	100 100	4.0 2.6	13.0 9.2	120000 800000	2350 2000				14A7
14AF7	Medium-Mu Twin Triode	B5	H	12.6	0.15	Each Unit as Class A Amplifier	For other characteristics, refer to Type 7AF7.										14AF7
14B6	Duplex-Diode High-Mu Triode	B5	H	12.6	0.15	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 6SQ7.										14B6
14B8	Pentagrid Converter	B5	H	12.6	0.15	Converter	For other characteristics, refer to Type 6A8.										14B8
14C5	Beam Power Tube	C2a	H	12.6	0.225	Class A Amplifier	180 315	- 8.5 - 13	180 225	3.0 2.2	29.0 34.0	50000 77000	3700 3750		5500 8500	2 5.5	14C5
14C7	Sharp-Cutoff Pentode	B5	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SJ7.										14C7
14E6	Twin-Diode Triode	B5	H	12.6	0.15	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 6SR7.										14E6
14E7	Twin-Diode-Remote-Cutoff Pentode	B5	H	12.6	0.15	Pentode Unit as Class A Amplifier	100 250	Cath. Bias	100 100	2.7 1.6	10.0 7.5	150000 700000	1600 1300	Cath. Res., 80 ohms Cath. Res., 330 ohms			14E7
14F7	Twin-Triode Amplifier	B5	H	12.6	0.15	Each Unit as Class A Amplifier	For other characteristics, refer to Type 6SL7-GT.										14F7
14F8	Medium-Mu Twin Triode	B0b	H	12.6	0.15	Each Unit as Class A Amplifier	250	Cathode-Bias Res., 500 ohms		6.0		3300	48				14F8
14H7	Remote-Cutoff Pentode	B5	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 7H7.										14H7
14J7	Triode-Heptode Converter	B5	H	12.6	0.15	Converter	For other characteristics, refer to Type 7J7.										14J7
14N7	Twin-Triode Amplifier	C2a	H	12.6	0.3	Each Unit as Class A Amplifier	For other characteristics, refer to Type 6J5.										14N7
14Q7	Pentagrid Converter	B5	H	12.6	0.15	Converter	For other characteristics, refer to Type 6SA7.										14Q7
14R7	Twin-Diode Pentode	B5	H	12.6	0.15	Pentode Unit as Class A Amplifier	For other characteristics, refer to Type 7R7.										14R7
15	RF Amplifier Pentode	D9	D.C. H	2.0	0.22	Class A Amplifier	67.5 135	- 1.5 - 1.5	67.5 67.5	0.3 0.3	1.85 1.85	630000 800000	710 750				15
17AX4-GT	Half-Wave Rectifier	C2b	H	16.8	0.45	Television Damper Service	Max. Peak Inverse Plate Volts, 4400 Max. Peak Plate Ma., 750 Max. DC Plate Ma., 125		Max. Peak Heater-Cathode Volts: -4000** +300 **DC component must not exceed 900 volts								17AX4-GT
17BQ6-GTB	Beam Power Tube	C11	H	16.8	0.45	Horizontal Deflection Amplifier	Max. DC Plate Volts, 600 Max. DC Cathode Ma., 112.5		Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 11 watts								17BQ6-GTB

For data on RCA Picture Tubes see pages 30 through 35.

Type	Name	Tube Dimensions	Cathode Type and Rating		Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type
			C. T.	Volts												
17DQ6-A	Beam Power Tube	D6	H	16.8	0.45	Horizontal Deflection Amplifier	Max. DC Plate Volts, 700	Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.)				Max. Plate Dissipation, 15 watts		17DQ6-A		
19	Twin-Triode Amplifier	D5	D.C. F	2.0	0.26	Amplifier	For other characteristics, refer to Type 1J6-G.									19
19AU4	Half-Wave Rectifier	C10b	H	18.9	0.3	Television Damper Service	Max. Peak Inverse Plate Volts, 4500	Max. Peak Heater-Cathode Volts: -4500**				Max. DC Plate Ma., 175		19AU4		
19BG6-G	Beam Power Tubes	F1	H	18.9	0.3	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 700	Max. Peak Positive-Pulse Plate Volts, 6600 (Abs.)				Max. Plate Dissipation, 20 watts		19BG6-G		
19BG6-GA	Medium-Mu Twin Triode	B0	H	18.9	0.15	Each Unit as Class A Amplifier	100	Cathode-Bias Res., 50 ohms *	8.5	7100	5300	38	—	—	19J6	

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.
 Two vertical rules before or after type No. = Metal type.
 One vertical rule before or after type No. = GT or other larger glass type.
 Light Face = Discontinued type.
 For key to tube dimensions and legend for base and envelope connection diagrams, see pages 34 and 35.
 ■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/2 (approx.) of filament voltage.
 ○ For use in automobile receivers which use transistors in the output stage; with tube and transistor electrode voltages supplied directly from a 12.6-volt storage battery.

△ Cathode-bias resistor, 180 ohms.
 ● Heater has controlled warm-up time for series-string operation.
 ▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.
 ■ Grids # 3 and # 5 are screen. Grid # 4 is signal-input control grid.



Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type
			C.T.	Volts	Amp.												
19T8	Triple-Diode High-Mu Triode	80a	H	18.9	0.15	Triode Unit as Class A Amplifier										19T8	
19X8	Triode-Pentode	80a	H	18.9	0.15	For other characteristics, refer to Type 6T8.										19X8	
20	Power Amplifier Triode	D1	D.C. F	3.3	0.132	90	-16.5	—	—	3.0	8000	415	3.3	9600	0.045	20	
22	RF Amplifier Tetrode	E1	D.C. F	3.3	0.132	135	-1.5	45	0.6*	1.7	725000	375	—	—	—	22	
24-A	RF Amplifier Tetrode	E1	H	2.5	1.75	135	-1.5	67.5	1.3*	3.7	325000	500	—	—	—	24-A	
						180	-3.0	90	1.7*	4.0	400000	1000	—	—	—		
25A6	Power Amplifier Pentodes	C2	H	25.0	0.3	250	-3.0	90	1.7*	4.0	600000	1050	—	—	—	25A6	
25A6-GT	Power Amplifier Pentodes	C3	H	25.0	0.3	250	-3.0	90	1.7*	4.0	600000	1050	—	—	—	25A6-GT	
25A7-GT	Rectifier Pentode	C3	H	25.0	0.3	100	-15.0	100	4.0	20.5	50000	1800	—	—	4500	0.77	25A7-GT
25AC5-GT	High-Mu Power Amplifier Triode	C3	H	25.0	0.3	100	-15.0	100	4.0	20.5	50000	1800	—	—	4500	0.77	25AC5-GT
25AX4-GT	Half-Wave Rectifier	C2b	H	25	0.3	180	0	—	—	4.0	—	—	—	—	4800	6.0	25AX4-GT
						110	Bias for both 25AC5-GT and 6AE5-GT developed in circuit. Average Plate Current of Driver = 7 milliamperes. Average Plate Current of 25AC5-GT = 45 milliamperes.										
25B5	Direct-Coupled Power Amplifier	D10	H	25.0	0.3	For other characteristics, refer to Type 25N6-G.										25B5	
25B6-G	Power Amplifier Pentode	D11b	H	25.0	0.3	105	-16.0	105	2.0	48.0	15500	4800	—	1700	2.4	25B6-G	
25B8-GT	Triode-Pentode	C3	H	25.0	0.15	200	-23.0	135	1.8	62.0	18000	5000	—	2500	7.1	25B8-GT	
						100	-1.0	—	—	0.6	75000	1500	112	—	—		
25BQ6-GT	Beam Power Tubes	C11	H	25.0	0.3	100	-3.0	100	2.0	7.6	185000	2000	—	—	—	25BQ6-GT	
25C6-G	Beam Power Tube	D11b	H	25.0	0.3	Horizontal Deflection Amplifier in TV Receivers										25C6-G	
25CD6-GA	Beam Power Tubes	F1	H	25	0.6	Horizontal Deflection Amplifier in TV Receivers										25CD6-GA	
25CD6-GB	Beam Power Tubes	F1	H	25	0.6	Horizontal Deflection Amplifier in TV Receivers										25CD6-GB	
25L6	Beam Power Tube	C2	H	25.0	0.3	110	-7.5	110	2.0	49.0	13000	9000	—	2000	2.1	25L6	
25L6-GT	Beam Power Tube	C2b	H	25.0	0.3	200	-8.0	110	2.0	50.0	30000	9500	—	3000	4.3	25L6-GT	
25N6-G	Direct-Coupled Power Amplifier	D9	H	25.0	0.3	For other characteristics, refer to Type 50L6-GT.										25N6-G	
25W4-GT	Half-Wave Rectifier	C2b	H	25.0	0.3	Output Triode: Plate Volts, 180; Plate Ma., 46; Load, 4000 ohms. Triode: Plate Volts, 100; Grid Volts, 0; A-F Signal Volts (Peak), 29.7; Plate Ma., 5.8. 3.8										25W4-GT	
25Y5	Rectifier-Doubler	D5	H	25.0	0.3	Max. AC Plate Volts (RMS), 350 Max. DC Output Ma., 125 Min. Total Effect. Supply Imped. per Plate, 145 ohms										25Y5	
25Z5	Rectifier-Doubler	D5	H	25.0	0.3	Max. AC Volts per Plate (RMS), 235 Min. Total Effective Plate-Supply Impedance per Plate, 0 ohms. Max. DC Output Ma. per Plate, 75										25Z5	
25Z6	Vacuum Rectifier-Doublers	C2	H	25.0	0.3	For other ratings, refer to Type 25Z6.										25Z6	
25Z6-GT	Vacuum Rectifier-Doublers	C2b	H	25.0	0.3	Max. AC Volts per Plate (RMS), 117 Min. Total Effective Plate-Supply Impedance: Half-Wave, 30 ohms; Full-Wave, 15 ohms. Max. DC Output Ma., 75										25Z6-GT	
26	Amplifier Triode	D12a	F	1.5	1.05	90	-7.0	—	—	2.9	8900	—	—	—	—	26	
27	Detector Amplifier Triode	D5	H	2.5	1.75	180	-14.5	—	—	6.2	7300	1350	8.3	—	—	27	
						135	-9.0	—	—	4.5	9000	1000	9.0	—			
						250	-21.0	—	—	5.2	9250	975	9.0	—			
30	Medium-Mu Triode	D5	D.C. F	2.0	0.06	250	-30.0 approx.	—	—	—	—	—	—	—	—	30	
31	Power Amplifier Triode	D5	D.C. F	2.0	0.13	Plate current to be adjusted to 0.2 milliamperes with no signal.										31	
32	RF Amplifier Tetrode	E1	D.C. F	2.0	0.06	135	-22.5	—	—	8.0	4100	925	3.8	7000	0.185	32	
						180	-30.0	—	—	12.3	3600	1050	3.8	5700	0.375		
32L7-GT	Rectifier-Beam Power Amplifier	C3	H	32.5	0.3	135	-3.0	67.5	0.4	1.7	950000	640	—	—	—	32L7-GT	
						180	-3.0	67.5	0.4	1.7	1.0+†	650	—	—	—		
33	Power Amplifier Pentode	D12a	D.C. F	2.0	0.26	180	-5.0	90	3.0	38.0	15000	6000	—	2600	0.8	33	
34	Remote-Cutoff Pentode	E1	D.C. F	2.0	0.06	90	-7.0	90	2.0	27.0	17000	4800	—	2600	1.0	34	
35	Remote-Cutoff Tetrode	E1	H	2.5	1.75	Maximum AC Plate Voltage..... 125 Volts, RMS Maximum DC Output Current..... 60 Milliamperes.										35	
35A5	Beam Power Tube	C2a	H	35.0	0.15	For other characteristics, refer to Type 35L6-GT.										35A5	
35B5	Beam Power Tube	B1	H	35.0	0.15	For other characteristics, refer to Type 35C5.										35B5	
35C5	Beam Power Tube	B1	H	35.0	0.15	For other characteristics, refer to Type 35C5.										35C5	
35L6-GT	Beam Power Tube	C2b	H	35.0	0.15	110	-7.5	110	3.0	40.0	14000	5800	—	2500	1.5	35L6-GT	
35W4	Half-Wave Rectifier Heater Tap for Pilot	B1	H	35.0	0.15	200	△	125	2.0	43.0	34000	6100	—	5000	3.0	35W4	
35Y4	Half-Wave Rectifier Heater Tap for Pilot	C2a	H	35.0	0.15	Max AC Plate Volts (RMS), 117. Min. Total Effect. Plate-Supply Impedance, 15 ohms. Max. DC Output Ma.: With Pilot and No Shunt Res., 60; Without Pilot, 100.										35Y4	
35Z3	Half-Wave Rectifier	C2a	H	35.0	0.15	For other characteristics, refer to Type 35W4.										35Z3	
35Z4-GT	Half-Wave Rectifier	C2b	H	35.0	0.15	For other ratings, refer to Type 35Z4-GT.										35Z4-GT	
35Z5-GT	Half-Wave Rectifier Heater Tap for Pilot	C2b	H	35.0	0.15	Max. AC Plate Volts (RMS), 235 Min. Total Effective Plate-Supply Impedance: Up to 117 volts, 15 ohms; at 235 volts, 100 ohms. Max. DC Output Ma.: With Pilot and No Shunt Res., 60; Without Pilot, 100.										35Z5-GT	
36	RF Amplifier Tetrode	D9	H	6.3	0.3	100	-1.5	55	—	1.8	550000	850	—	—	—	36	
						250	-3.0	90	1.7*	3.2	550000	1080	—	—	—		
37	Detector Amplifier Triode	D5	H	6.3	0.3	100	-5.0	55	—	—	—	—	—	—	37		
						250	-8.0	90	—	—	—	—	—	—		—	

For data on RCA Picture Tubes see pages 30 through 35.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type	
			C.T.	Volts	Amp.													
38	Power Amplifier Pentode	D9	H	6.3	0.3	Class A Amplifier	100 250	- 9.0 -25.0	100 250	1.2 3.8	7.0 22.0	140000 100000	875 1200	—	15000 10000	0.27 2.50	38	
39/44	Remote-Cutoff Pentode	D9	H	6.3	0.3	Class A Amplifier	90 250	{ - 3.0 min. }	90 90	1.6 1.4	5.6 5.8	400000 1050	1000 1050	—	—	—	39/44	
40	Medium-Mu Triode	D12a	D.C. F	5.0	0.25	Class A Amplifier	135* 180*	- 1.5 - 3.0	—	—	0.2	150000 150000	200 200	30 30	—	—	40	
41	Power Amplifier Pentode	D5	H	6.3	0.4	Amplifier	For other characteristics, refer to Type 6K6-GT.										41	
42	Power Amplifier Pentode	D12a	H	6.3	0.7	Amplifier	For other characteristics, refer to Type 6F6-G.										42	
43	Power Amplifier Pentode	D12a	H	25.0	0.3	Amplifier	For other characteristics, refer to Type 25A6.										43	
45	Power Amplifier Triode	D12a	F	2.5	1.5	Class A Amplifier	180 275	-31.5 -56.0	—	—	31.0 36.0	1650 1700	2125 2050	3.5 3.5	2700 4600	0.82 2.00	45	
						Push-Pull Class AB ₂ Amplifier	275	Cath. Bias, 775 ohms* -68.0 volts, fixed bias	—	—	36.0* 28.0*	—	—	—	—	5060 3200		12.0† 18.0†

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Two vertical rules before or after type No. = Metal type.

One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see pages 34 and 35.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/2 (approx.) of filament voltage.

† Power output is for two tubes at stated plate-to-plate load.

♣ For two tubes.

• Megohms.

● Heater has controlled warm-up time for series-string operation.

♢ For television damper service.

★ For Grid-leak Detection--plate volts, 45; grid return to + filament or to cathode.

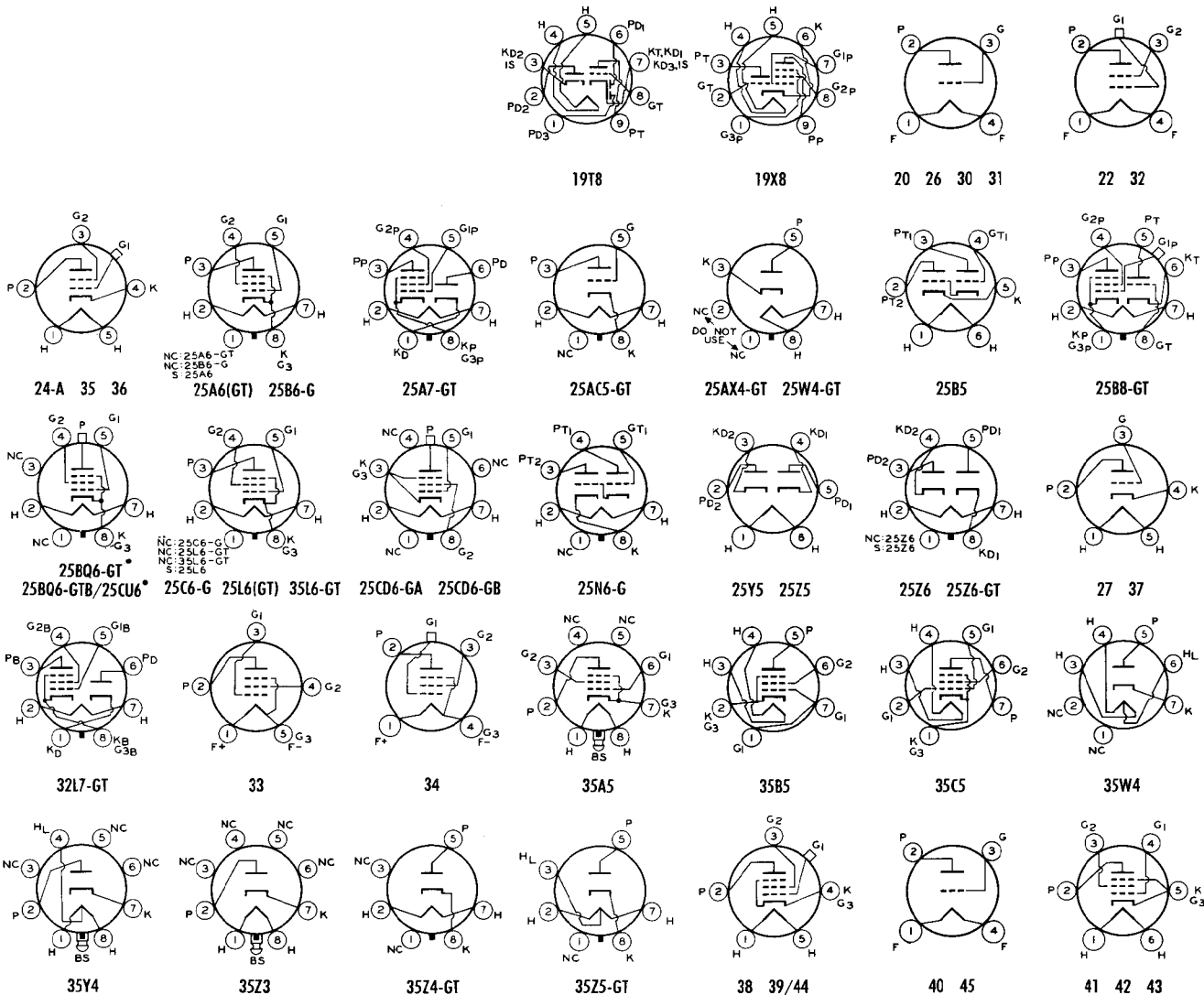
* Maximum.

✖ Applied through plate resistor of 250000 ohms.

♥ Applied through plate resistor of 100000 ohms.

△ Cathode-bias resistor, 180 ohms.

Note 2: Subscript 2 on class of amplifier service (as AB₂) indicates that grid current flows during some part of the input cycle.



• On the 6-pin bases pin 1 as well as 6 is omitted.

Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type	
			C. T.	Volts	Imp.													
45Z3	Half-Wave Rectifier	B0	H	45.0	0.075	Half-Wave Rectifier	250	—	—	—	—	—	—	—	—	—	45Z3	
45Z5-GT	Half-Wave Rectifier Heater Tap for Pilot	C2b	H	45.0	0.15	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350	—	—	—	—	—	—	—	—	—	45Z5-GT	
46	Dual-Grid Power Amplifier	E3	F	2.5	1.75	Class A Amplifier Class B Amplifier	250 400	-33.0 0	—	—	22.0 8.0 12.0	2380 —	2350	5.6	6400 5200 5800	1.25 16.0 20.0	46	
47	Power Amplifier Pentode	E3	F	2.5	1.75	Class A Amplifier	250	-16.5	250	6.0	31.0	60000	2500	—	7000	2.7	47	
48	Power Amplifier Tetrode	E3	D.C. H	30.0	0.4	Tetrode Class A Amplifier	96 125	-19.0 -20.0	96 100	9.0 9.5	52.0 56.0	—	3800 3900	—	1500 1500	2.0 2.5	48	
49	Dual-Grid Power Amplifier	D12a	D.C. F	2.0	0.12	Tetrode Push-Pull Class A Amplifier	125 125	-20.0	100	—	100.0	—	—	—	3000	5.0	49	
50	Power Amplifier Triode	F1a	F	7.5	1.25	Class A Amplifier	300 400 450	-54.0 -79.0 -84.0	—	—	35.0 55.0 55.0	2000 1800 1800	1900 2100 2100	3.8 3.8 3.8	4600 3670 4350	1.6 3.4 4.6	50	
50A5	Beam Power Tube	C2a	H	50.0	0.15	Class A Amplifier	For other characteristics, refer to Type 50L6-GT.										50A5	
50B5	Beam Power Tube	B1	H	50.0	0.15	Class A Amplifier	For other characteristics, refer to Type 50C5.										50B5	
50C5	Beam Power Tube	B1	H	50.0	0.15	Class A Amplifier	110	-7.5	110	4.0	49.0	10000	7500	—	2500	1.9	50C5	
50C6-G	Beam Power Tube	D11b	H	50.0	0.15	Class A Amplifier	135 200	-13.5 -14.0	135 135	3.5 2.2	58.0 61.0	9300 18300	7000 7100	—	2000 2600	3.6 6.0	50C6-G	
50L6-GT	Beam Power Tube	C2b	H	50.0	0.15	Class A Amplifier	100 200	-7.5 Δ	110 125	4.0 2.2	49.0 46.0	13000 28000	8000 8000	—	2000 4000	2.1 3.8	50L6-GT	
50X6	Rectifier-Doubler	C2a	H	50.0	0.15	Rectifier-Doubler Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 117 Max. DC Output Ma., 75	—	—	—	—	—	—	—	—	—	50X6	
50Y6-GT	Rectifier-Doubler	C2b	H	50.0	0.15	Rectifier-Doubler	Max. AC Volts per Plate (RMS), 235 Max. DC Output Ma. per Plate, 75	—	—	—	—	—	—	—	—	—	50Y6-GT	
50Y7-GT	Rectifier-Doubler Heater Tap for Pilot	C2b	H	50.0	0.15	Voltage Doubler Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 117 Max. DC Output Ma., 65	—	—	—	—	—	—	—	—	—	50Y7-GT	
50Z7-G	Rectifier-Doubler Heater Tap for Pilot	D3	H	50.0	0.15	Voltage Doubler Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 235 Max. DC Output Ma. per Plate, 65	—	—	—	—	—	—	—	—	—	50Z7-G	
53	Twin-Triode Amplifier	D12a	H	2.5	2.0	Amplifier	For other characteristics, refer to Type 6N7-GT.										53	
55	Duplex-Diode Triode	D9	H	2.5	1.0	Triode Unit as Amplifier	For other characteristics, refer to Type 85.										55	
56	Medium-Mu Triode	D5	H	2.5	1.0	Amplifier Detector	For other characteristics, refer to Type 76.										56	
57	Sharp-Cutoff Pentode	D13a	H	2.5	1.0	Amplifier Detector	For other characteristics, refer to Type 6J7.										57	
58	Remote-Cutoff Pentode	D13a	H	2.5	1.0	Amplifier Mixer	For other characteristics, refer to Type 6U7-G.										58	
59	Triple-Grid Power Amplifier	E3	H	2.5	2.0	Triode Class A Amplifier Pentode Class A Amplifier	250	-28.0	—	—	26.0	2300	2600	6.0	5000	1.25	59	
70L7-GT	Rectifier-Beam Power Amplifier	C10	H	70.0	0.15	Triode Class B Amplifier Amplifier Unit as Amplifier	300 400	0 0	—	—	20.0 26.0	—	—	—	4600 6000	15.0 20.0	70L7-GT	
71-A	Power Amplifier Triode	D12a	F	5.0	0.25	Class A Amplifier	90 180	-16.5 -40.5	—	—	10.0 20.0	2170 1750	1400 1700	3.0 3.0	3000 4800	0.125 0.790	71-A	
75	Twin-Diode High-Mu Triode	D9	H	6.3	0.3	Amplifier	For other characteristics, refer to Type 6SQ7.										75	
76	Detector Amplifier Triode	D5	H	6.3	0.3	Class A Amplifier Bias Detector	250	-13.5	—	—	5.0	9500	1450	13.8	—	—	76	
77	Triple-Grid Detector Amplifier	D9	H	6.3	0.3	Class A Amplifier Bias Detector	100 250	-1.5 -3.0	60 100	0.4 0.5	1.7 2.3	600000 1.0+ $\$$	1100 1250	—	—	—	77	
78	Remote-Cutoff Pentode	D9	H	6.3	0.3	Amplifier Mixer	250	-1.95	50	—	—	—	—	—	—	—	78	
79	Twin-Triode Amplifier	D9	H	6.3	0.6	Class B Amplifier	180 250	0	—	—	—	—	—	—	7000 14000	5.5 8.0	79	
80	Full-Wave Rectifier	D12a	F	5.0	2.0	With Capacitive-Input Filter With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 350 Max. Peak Inverse Volts, 1400	—	—	—	—	—	—	—	—	—	—	80
81	Half-Wave Rectifier	F1a	F	7.5	1.25	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 700 Max. Peak Inverse Volts, 2000	—	—	—	—	—	—	—	85 500	—	81	
82	Full-Wave Rectifier	D12a	F	2.5	3.0	With Capacitive-Input Filter With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550	—	—	—	—	—	—	—	115 600	Min. Total Effect. Supply Imped. per Plate, 50 ohms	82	
83	Full-Wave Rectifier	E3	F	5.0	3.0	With Capacitive-Input Filter With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550	—	—	—	—	—	—	—	115 600	Min. Value of Input Choke, 6 henries	83	
83-v	Full-Wave Rectifier	D12a	H	5.0	2.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550	—	—	—	—	—	—	—	225 1000	Min. Total Effect. Supply Imped. per Plate, 50 ohms	83	
84/6Z4	Full-Wave Rectifier	D5	H	6.3	0.5	With Capacitive-Input Filter With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250	—	—	—	—	—	—	—	50 180	Min. Total Effect. Supply Imped. per Plate, 150 ohms	84/6Z4	
85	Twin-Diode Triode	D9	H	6.3	0.3	Triode Unit as Class A Amplifier As Triode Class A Amplifier	135 160 250	-10.5 -20.0 -31.0	—	—	3.7 8.0 17.0	11000 7500 3300	750 1100 1425	8.3 8.3 4.7	25000 20000 7000	0.075 0.350 0.30	85	
89	Triple-Grid Power Amplifier	D9	H	6.3	0.4	As Pentode Class A Amplifier As Triode Class B Amplifier	100 250	-10.0 -25.0	100 250	1.6 5.0	9.5 32.0	194000 70000	1200 1800	—	10700 6750	0.33 3.40	89	
117L7/M7-GT	Rectifier-Beam Power Tube	C10	H	117	0.09	Half-Wave Rectifier	105	-5.2	105	4.0	43.0	17000	5300	—	4000	0.85	117L7/M7-GT	

For data on RCA Picture Tubes see pages 30 through 35.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) umhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
117N7-GT	Rectifier-Beam Power Tube	C10	H	117	0.09	100	- 6.0	100	5.0	51.0	16000	7000	—	3000	1.2	117N7-GT	
117P7-GT	Rectifier-Beam Power Tube	C10	H	117	0.09	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350		Max. DC Output Ma., 75 Max. Peak Plate Ma., 450		Min. Total Effect. Plate-Supply Impedance, 15ohms.						117P7-GT	
117Z3	Half-Wave Rectifier	B1a	H	117	0.04	With Capacitive-Input Filter Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 330		Max. DC Output Ma., 90 Max. Peak Plate Ma., 540		Min. Total Effect. Plate-Supply Imped., 20 ohms						117Z3	
117Z4-GT	Half-Wave Rectifier	C0	H	117.0	0.04	With Capacitive-Input Filter Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350		Max. DC Output ma., 90 Max. Peak Plate ma., 540		Min. Total Effect. Plate-Supply Imped., 30 ohms						117Z4-GT	
117Z6-GT	Rectifier-Doubler	C2b	H	117	0.075	Voltage Doubler Max. AC Volts per Plate (RMS), 117 Max. DC Output Ma., 60		Min. Total Effective Plate-Supply Impedance per Plate: Half-Wave, 30 ohms; Full-Wave, 15 ohms.		Min. Total Effect. Supply Imped. per Plate: Up to 117 volts, 15 ohms; at 150 volts, 40 ohms; at 235 volts, 100 ohms.						117Z6-GT	

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see pages 34 and 35.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/2 (approx.) of filament voltage.

♣ For two tubes.

□ Grid # 2 tied to plate.

† Power output is for two tubes at stated plate-to-plate load.

♠ Grids # 1 and # 2 tied together.

△ Cathode-bias resistor, 180 ohms.

★ For Grid-leak Detection—plate volts, 45; grid return to - filament or to cathode.

■ Grid # 1 is control grid. Grid # 2 is screen. Grid # 3 tied to cathode.

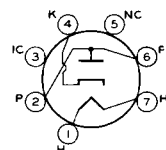
** For grid of following tube.

► Mercury-Vapor Type.

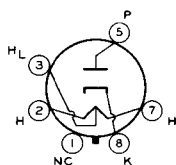
⊙ Grids # 1 and # 2 connected together. Grid # 3 tied to plate.

§ Megohms.

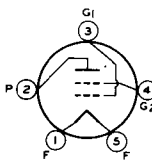
¶ Grid # 1 is control grid. Grids # 2 and # 3 tied to plate.



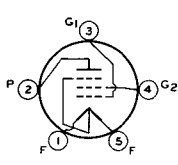
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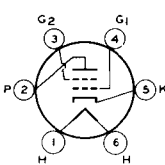
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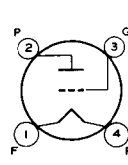
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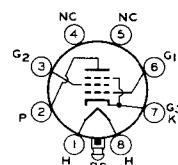
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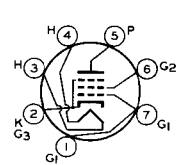
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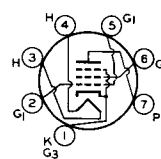
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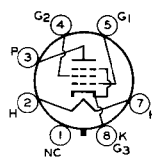
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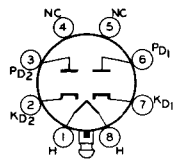
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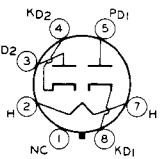
50C5



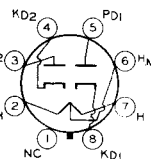
50C6-G 50L6-GT



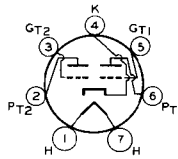
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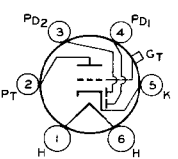
50Y6-GT 117Z6-GT



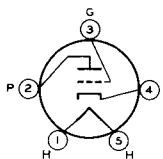
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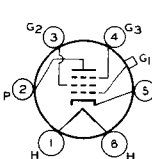
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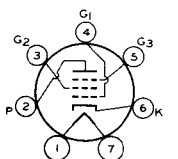
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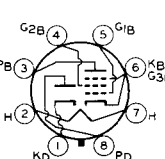
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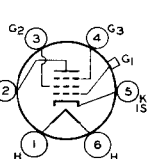
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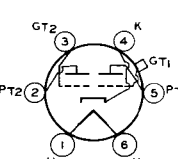
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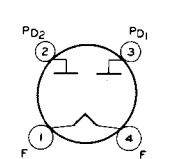
70L7-GT



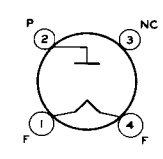
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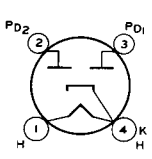
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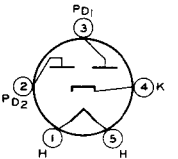
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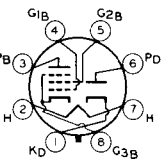
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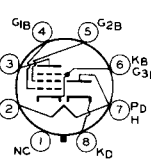
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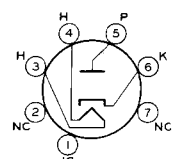
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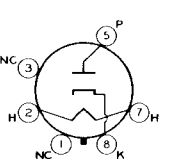
117L7/M7-GT



117N7-GT 117P7-GT



117Z3

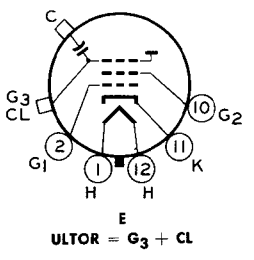
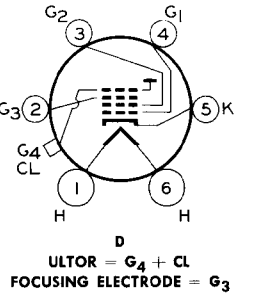
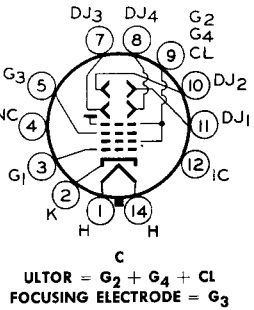
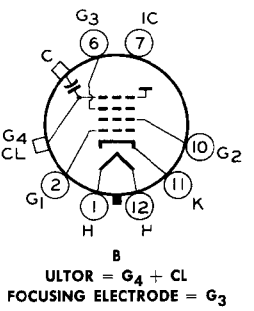
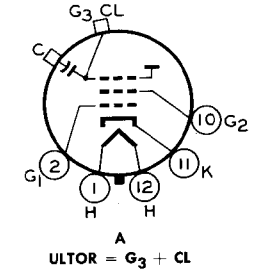


117Z4-GT

* 82 and 83 are mercury-vapor types.

3. RCA PICTURE TUBE CH

Type	Envelope	Aluminized Screen Asterisk (*) denotes "Silverama" type	Faceplate	External Conductive Coating		Focusing Method	Deflection Method	Approx. Deflection Angle Degrees			Maximum Dimensions Inches				Neck Length Inches	Minimum Screen Size Inches
				Max. μ ft	Min. μ ft			Diag.	Horiz.	Vert.	Overall Length	Envelope Dia. or Diagonal	Width	Height		
Black-and-White Types																
5TP4*	Ⓞ	Yes	CL	500	100	E	M	—	50	—	12½	5½	—	—	7½	4½ Dia.
7DP4	Ⓞ	No	CL	1500	400	E	M	—	50	—	14½	7½	—	—	8½	6 Dia.
7JP4	Ⓞ	No	CL	None	None	E	E _⊙	—	—	—	14½	7½	—	—	—	6 Dia.
8DP4	Ⓞ	No	FG	350	250	E	M	90	85	68	10¾	8½	7½	6½	6½	7½ x 5½
9AP4	Ⓞ	No	CL	None	None	E	M	—	40	—	21¾	9¾	—	—	10	7½ Dia.
10BP4	Ⓞ	No	Same as 10BP4-A, except has clear glass faceplate.													
10BP4-A	Ⓞ	No	FG	2500	500	M	M	—	52	—	18	10½	—	—	8¾	9½ Dia.
10FP4-A	Ⓞ	*Yes	FG	2500	500	M	M	—	50	—	18	10½	—	—	8¾	9½ Dia.
12AP4	Ⓞ	No	CL	None	None	E	M	—	40	—	25¾	12¾	—	—	9¾	10¾ Dia.
12KP4-A	Ⓞ	*Yes	FG	2500	500	M	M	—	54	—	18	12¾	—	—	7½	11½ Dia.
12LP4	Ⓞ	No	Same as 12LP4-A, except has clear glass faceplate.													
12LP4-A	Ⓞ	No	FG	2000	750	M	M	—	57	—	19¾	12¾	—	—	8¾	11 Dia.
14ATP4	Ⓞ	*Yes	FG	1000	500	E	M	90	85	68	13½	14½	13¾	10¼	5½	12½ x 9½
14EP4/ 14CP4/ 14BP4	Ⓞ	No	FG	2000	750	M	M	70	65	50	16¾	13¾	12½	9¾	7½	11½ x 8½
14HP4	Ⓞ	No	FG	2000	750	E	M	70	65	50	17¾	13¾	12½	9¾	7½	11½ x 8½
14QP4-A	Ⓞ	*Yes	FG	1000	900	E	M	70	65	50	16¾	13¾	12½	9¾	6¾	11½ x 8½
14RP4	Ⓞ	No	FG	1200	800	E	M	90	85	68	14½	14½	13¾	10¼	6½	12½ x 9½
14RP4-A	Ⓞ	*Yes	Same as 14RP4, except has aluminized screen.													
16AP4	M	No	Same as 16AP4-A, except has clear glass faceplate.													
16AP4-A	Ⓞ	No	FG	None	None	M	M	—	53	—	22¾	16	—	—	7¾	14¾ Dia.
16DP4-A	Ⓞ	No	FG	None	None	M	M	—	60	—	21	16	—	—	7¾	14¾ Dia.
16GP4	Ⓞ	No	Same as 16GP4-B, except has Filterglass faceplate.													
16GP4-A	Ⓞ	No	Same as 16GP4-B, except has clear glass faceplate.													
16GP4-B	Ⓞ	No	FFG	None	None	M	M	—	70	—	17¼	16	—	—	6¾	14¾ Dia.
16GP4-C	Ⓞ	No	Same as 16GP4-B, except has frosted clear glass faceplate.													
16LP4-A	Ⓞ	No	FG	2000	750	M	M	—	52	—	22¾	16	—	—	7¾	14¾ Dia.
16RP4/ 16KP4	Ⓞ	No	FG	1500	750	M	M	70	65	50	19¾	16¾	14¾	11¾	7½	13½ x 10¾
16RP4-A/ 16KP4-A	Ⓞ	*Yes	Same as 16RP4/16KP4, except has aluminized screen.													
16TP4	Ⓞ	No	FG	2000	750	M	M	70	65	50	18½	16¾	14¾	11¾	6¾	13½ x 10¾
16WP4-A	Ⓞ	No	FG	1500	750	M	M	—	70	—	18¾	16	—	—	7¾	14¾ Dia.
17AVP4/ 17ATP4	Ⓞ	No	FG	1500	1200	E	M	90	85	68	16	16¾	15¾	12¾	6½	14¾ x 11¾
17AVP4-A/ 17ATP4-A	Ⓞ	*Yes	Same as 17AVP4/17ATP4 except has aluminized screen.													
17BJP4	Ⓞ	*Yes	FG	1500	1200	E	M	90	85	68	15	16¾	15¾	12¾	5½	14¾ x 11¾
17BP4-A	Ⓞ	No	FG	1500	750	M	M	70	65	50	19¾	16¾	15¾	12¾	7½	14¾ x 11¾
17BP4-B	Ⓞ	*Yes	Same as 17BP4-A, except has aluminized screen.													
17BWP4	Ⓞ	*Yes	FG	1500	1000	E	M	110	105	87	12¾	16¾	15¾	12¾	5¾	14¾ x 11¾
17BZP4	Ⓞ	*Yes	FG	1500	1000	E	M	110	105	87	12¾	16¾	15¾	12¾	5¾	14¾ x 11¾
17CDP4	Ⓞ	*Yes	Same as 17BZP4, except has 450-ma./8.4-volt heater.													
17CP4	M	No	FFG	None	None	M	M	70	66	50	19	17	16¾	12¾	7¾	14¾ x 11
17CP4-A	M	No	Same as 17CP4, except has Filterglass faceplate.													
17GP4	M	No	FFG	None	None	E	M	70	66	50	19¾	17	16¾	12¾	7½	14¾ x 11
17HP4/ 17RP4	Ⓞ	No	FG	1500	750	E	M	70	65	50	19¾	16¾	15¾	12¾	7½	14¾ x 11¾
17HP4-B/ 17RP4-C	Ⓞ	*Yes	FG	1500	750	E	M	70	65	50	19¾	16¾	15¾	12¾	7½	14¾ x 11¾
17JP4	Ⓞ	No	FG	750	500	M	M	70	65	50	19¾	16¾	15¾	12¾	7½	14¾ x 11¾
17LP4/ 17VP4	Ⓞ	No	FG**	1500	750	E	M	70	65	50	19¾	16¾	15¾	12¾	7½	14¾ x 10¾
17LP4-A/ 17VP4-B	Ⓞ	*Yes	FG**	1500	750	E	M	70	65	50	19¾	16¾	15¾	12¾	7½	14¾ x 10¾



Light face = Discontinued type.
 Ⓞ = Glass rectangular.
 M = Metal rectangular.
 CL = Clear glass.
 FFG = Frosted Filterglass.
 FG = Filterglass.
 M = Magnetic.
 E = Electrostatic.
 Ⓞ = Glass round.
 M = Metal round.

All picture tubes shown have 6.3-volt/0.6-ampere heaters except types 9AP4 and 12AP4 which have 2.5-volt/2.1-ampere heaters and types 14ATP4 and 17CDP4 which have 8.4-volt/450-milliamper heaters.

⊙ Spherical, unless otherwise specified.
 ** Cylindrical faceplate.
 † At ultor lip-terminal.

•• This type has a flat, aluminized, Filterglass, phosphor-dot, screen plate.
 ⊙ Deflection factors (dc/in.) for typical operating conditions shown:
 DJ₁ & DJ₂ (near screen) 180 to 240
 DJ₁ & DJ₂ (near base) 150 to 200

• At faceplate.
 ■ Projection type.

CHARACTERISTICS CHART

High Voltage Terminal	Bas-ing	Maximum Ratings							Typical Operating Conditions in Grid-Drive Service					P M Ion-Trap Magnet Min. Gauss	Type
		Final High-Voltage Electrode (Ultor*) Volts	Focusing Electrode Volts	Grid-No. 2 Volts	Grid-No. 1 Volts [‡]	Peak Heater-Cathode Volts		Final High-Voltage Electrode (Ultor*) Volts	Grid-No. 2 Volts	Focusing Electrode Volts	Grid-No. 1 Volts For Visual Collection of Focused Raster				
						H(-)									
						During Warm-Up [†]	After Warm-Up								
											H(+)				
Black-and-White Types															
Cavity Cap	B	27000	6000	350	-150	410	175	10	27000	200	4320 to 5400	-37 to -93	None	5TP4*	
Cavity Cap	B	8000	2400	410	-125	410	150	150	6000	250	1215 to 1645	-22 to -58	---	7DP4	
Base Pin	C	6000	2800	∞	-200	410	125	125	6000	∞	1620 to 2400	-67 to -163	None	7JP4	
Cavity Cap	J	8000	+500 -500	300	-100	---	180	180	6000 8000	150 200	+15 to +315 +60 to +360	-13 to -35 -17 to -46	31 36	8DP4	
Medium Cap	D	7000	2000	300	-125	---	---	---	7000	250	1190 to 1790	-15 to -55	None	9AP4	
Ratings and typical operating conditions are same as for type 10BP4-A.															
Cavity Cap	E	12000	---	410	-125	410	150	150	8000 to 12000	250	---	-22 to -58	---	10BP4-A	
Cavity Cap	E	12000	---	410	-125	410	140	140	8000 to 12000	250	---	-22 to -58	None	10FP4-A	
Medium Cap	D	7000	2000	300	-125	---	---	---	7000	250	1190 to 1790	-15 to -55	None	12AP4	
Cavity Cap	E	12000	---	410	-125	410	140	140	9000 to 12000	250	---	-22 to -58	None	12KP4-A	
Ratings and typical operating conditions are same as for type 12LP4-A.															
Cavity Cap	E	12000	---	410	-125	410	150	150	9000 to 12000	250	---	-22 to -58	---	12LP4-A	
Cavity Cap	H	14000	+1000 -500	500	-140	---	180	180	10000 14000	300 400	0 to +400 0 to +400	-25 to -69 -31 to -90	None	14ATP4	
Cavity Cap	E	14000	---	410	-125	410	150	150	12000 14000	300 300	---	-28 to -72 -28 to -72	29 31	14EP4/ 14CP4/ 14BP4	
Cavity Cap	H	14000	+500 -500	500	-125	410	180	180	12000 14000	300 300	-50 to +265 -55 to +310	-28 to -72 -28 to -72	29 31	14HP4	
Cavity Cap	H	11000	+1000 -500	500	-180	410	180	180	9000	250	-50 to +250	-25 to -64	27	14QP4-A	
Cavity Cap	H	14000	+500 -500	400	-110	---	180	180	10000 14000	300 300	-50 to +350 +70 to +470	-26 to -70 -26 to -70	36 43	14RP4	
Ratings and typical operating conditions are same as for type 14RP4															
Ratings and typical operating conditions are same as for type 16AP4-A.															
Metal-Shell Lip	F	14000	---	410	-125	410	150	150	9000 12000	300 300	---	-28 to -72 -28 to -72	25 29	16AP4-A	
Cavity Cap	F	15000	---	410	-125	410	125	125	9000 to 15000	250	---	-22 to -58	---	16DP4-A	
Ratings and typical operating conditions are same as for type 16GP4-B.															
Metal-Shell Lip	F	14000	---	410	-125	410	180	180	12000 14000	300 300	---	-28 to -72 -28 to -72	29 31	16GP4-B	
Ratings and typical operating conditions are same as for type 16GP4-B.															
Cavity Cap	E	14000	---	410	-125	410	125	125	12000 to 14000	300	---	-28 to -72	---	16LP4-A	
Cavity Cap	A	16000	---	410	-125	410	150	150	12000 14000	300 300	---	-28 to -72 -28 to -72	29 31	16RP4/ 16KP4	
Ratings and typical operating conditions are same as for type 16RP4-A/16KP4.															
Cavity Cap	E	14000	---	410	-125	410	150	150	12000 14000	300 300	---	-28 to -72 -28 to -72	29 31	16TP4	
Cavity Cap	E	16000	---	410	-125	410	125	125	12000 to 16000	250	---	-22 to -58	---	16WP4-A	
Cavity Cap	H	16000	+1000 -500*	500	-140	410	180	180	14000 16000	300 300	-55 to +310 -65 to +350	-28 to -72 -28 to -72	31 33	17AVP4/ 17ATP4	
Ratings and typical operating conditions are same as for type 17AVP4/17ATP4.															
Cavity Cap	H	16000	+1000 -500	500	-140	410	180	180	16000	300	-50 to +350	-28 to -72	None	17BJP4	
Cavity Cap	A	16000	---	410	-140	410	150	150	12000 14000	300 300	---	-28 to -72 -28 to -72	29 31	17BP4-A	
Ratings and typical operating conditions are same as for type 17BP4-A.															
Cavity Cap	L	16000	+1000 -500	500	-140	410	180	180	14000	300	-50 to +350	-35 to -72	None	17BWP4	
Cavity Cap	K	16000	+1000 -500	500	-140	---	180	180	14000 16000	300 400	0 to -400 0 to +400	-28 to -72 -36 to -94	None	17BZP4	
Ratings (other than heater) and typical operating conditions are same as for type 17BZP4															
Metal-Shell Lip	F	16000	---	410	-125	410	180	180	12000 14000	300 300	---	-28 to -72 -28 to -72	29 31	17CP4	
Ratings and typical operating conditions are same as for type 17CP4.															
Metal-Shell Lip	G	16000	5000	500	-125	410	180	180	12000 14000	300 300	2040 to 2760 2380 to 3220	-28 to -72 -28 to -72	29 31	17GP4	
Cavity Cap	H	16000	+1000 -500*	500	-140	410	180	180	14000 16000	300 300	-55 to +300 -65 to +350	-28 to -72 -28 to -72	31 33	17HP4/ 17RP4	
Cavity Cap	H	16000	+1000 -500*	500	-140	410	180	180	14000 16000	300 300	-55 to +300 -65 to +350	-28 to -72 -28 to -72	31 33	17HP4-B/ 17RP4-C	
Cavity Cap	A	18000	---	400	-140	410	150	150	14000 16000	300 300	---	-28 to -72 -28 to -72	31 33	17JP4	
Cavity Cap	H	16000	+1000 -500*	500	-140	410	180	180	14000 16000	300 300	-55 to +300 -65 to +350	-28 to -72 -28 to -72	31 33	17LP4/ 17VP4	
Cavity Cap	H	16000	+1000 -500*	500	-140	410	180	180	14000 16000	300 300	-55 to +300 -65 to +350	-28 to -72 -28 to -72	31 33	17LP4-A/ 17VP4-B	

* ULTOR is defined as the electrode, or the electrode in combination with one or more additional electrodes connected within the tube to it, to which is applied the highest dc voltage for accelerating the electrons in the beam prior to its deflection.

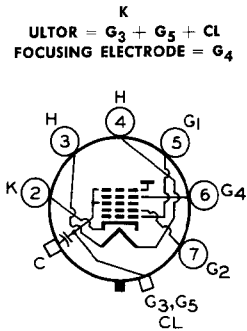
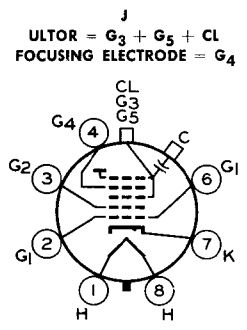
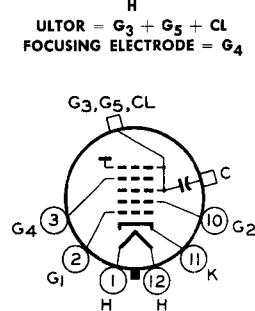
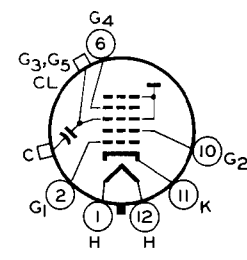
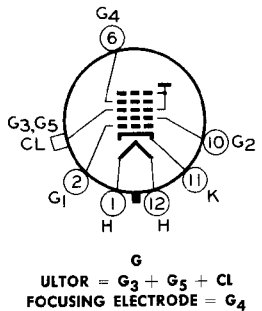
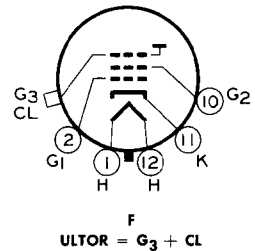
‡ Positive bias value = 0 volts; positive peak value = 2 volts.

† During equipment warm-up not exceeding 15 seconds.

∞ Grid No. 2 connected to final high-voltage electrode within tube.

Δ Each gun.

▲ This value has been specified to take care of the condition where an ac voltage is provided for dynamic focusing.



RCA PICTURE TUBE CHART

Type	Envelope	Aluminized Screen Asterisk (*) denotes "Silverana" type	Faceplate	External Conductive Coating		Focusing Method	Deflection Method	Approx. Deflection Angle Degrees			Maximum Dimensions Inches			Neck Length Inches	Minimum Screen Size Inches	
				Max. μft	Min. μft			Diag.	Horiz.	Vert.	Overall Length	Envelope Dia. or Diagonal	Width			Height
Black-and-White Types (Cont'd)																
17QP4	G	No	FG**	1500	750	M	M	70	65	50	19 $\frac{1}{16}$	16 $\frac{3}{16}$	15 $\frac{3}{16}$	12 $\frac{1}{2}$	7 $\frac{1}{2}$	14 $\frac{1}{4}$ x 10 $\frac{3}{4}$
17QP4-A	G	*Yes	FG**	1500	750	M	M	70	65	50	19 $\frac{1}{16}$	16 $\frac{3}{16}$	15 $\frac{3}{16}$	12 $\frac{1}{2}$	7 $\frac{1}{2}$	14 $\frac{1}{4}$ x 10 $\frac{3}{4}$
17TP4	M	No	FFG	None	None	E	M	70	66	50	19 $\frac{1}{16}$	17	16 $\frac{1}{16}$	12 $\frac{3}{8}$	7 $\frac{1}{2}$	14 $\frac{3}{8}$ x 10 $\frac{1}{16}$
19AP4	M	No	Same as 19AP4-B, except has clear glass faceplate.													
19AP4-A	M	No	Same as 19AP4-B, except has filterglass faceplate.													
19AP4-B	M	No	FFG	None	None	M	M	—	66	—	22	18 $\frac{3}{4}$	—	—	7 $\frac{1}{8}$	17 $\frac{1}{4}$ Dia.
19AP4-D	M	No	Same as 19AP4-B, except has frosted clear glass faceplate.													
20CP4	G	No	FG	None	None	M	M	70	66	50	21 $\frac{3}{16}$	20 $\frac{3}{16}$	18 $\frac{7}{16}$	15 $\frac{1}{8}$	7 $\frac{3}{16}$	17 x 12 $\frac{3}{4}$
20DP4-A/ 20CP4-A	G	No	FG	1500	500	M	M	70	66	50	21 $\frac{1}{8}$	20 $\frac{7}{16}$	18 $\frac{13}{16}$	15 $\frac{1}{16}$	7 $\frac{5}{16}$	17 x 12 $\frac{3}{4}$
20DP4-C/ 20CP4-D	G	*Yes	FG	1500	500	M	M	70	66	50	21 $\frac{1}{8}$	20 $\frac{7}{16}$	18 $\frac{13}{16}$	15 $\frac{1}{16}$	7 $\frac{5}{16}$	17 x 12 $\frac{3}{4}$
20HP4-A/ 20MP4	G	No	FG	1500	500	E	M	70	66	50	22 $\frac{1}{8}$	20 $\frac{7}{16}$	18 $\frac{13}{16}$	15 $\frac{1}{16}$	7 $\frac{1}{2}$	17 x 12 $\frac{3}{4}$
20HP4-D	G	*Yes	FG	1500	750	E	M	70	66	50	22 $\frac{1}{8}$	20 $\frac{7}{16}$	18 $\frac{13}{16}$	15 $\frac{1}{16}$	7 $\frac{1}{2}$	17 x 12 $\frac{3}{4}$
21ACP4-A/ 21BSP4	G	*Yes	FG	2500	2000	M	M	90	85	68	20 $\frac{3}{8}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	16 $\frac{1}{2}$	7 $\frac{1}{2}$	19 $\frac{1}{16}$ x 15 $\frac{1}{16}$
21ALP4	G	No	FG	750	500	E	M	90	85	68	20 $\frac{3}{8}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	16 $\frac{1}{2}$	7 $\frac{1}{2}$	19 $\frac{1}{16}$ x 15 $\frac{1}{16}$
21ALP4-B/ 21ALP4-A	G	*Yes	FG	750	500	E	M	90	85	68	20 $\frac{3}{8}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	16 $\frac{1}{2}$	7 $\frac{1}{2}$	19 $\frac{1}{16}$ x 15 $\frac{1}{16}$
21AMP4-A	G	*Yes	FG	2500	2000	M	M	90	85	68	20 $\frac{3}{8}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	16 $\frac{1}{2}$	7 $\frac{1}{2}$	19 $\frac{1}{16}$ x 15 $\frac{1}{16}$
21AP4	M	No	FFG	None	None	M	M	70	66	50	22 $\frac{3}{8}$	21	19 $\frac{27}{32}$	15 $\frac{1}{16}$	7 $\frac{1}{2}$	18 $\frac{1}{2}$ x 13 $\frac{1}{16}$
21ATP4-A/ 21ATP4	G	*Yes	FG	1500	1200	E	M	90	85	68	20 $\frac{3}{8}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	16 $\frac{1}{2}$	7 $\frac{1}{2}$	19 $\frac{1}{16}$ x 15 $\frac{1}{16}$
21AVP4/ 21AUP4	G	No	FG	2500	2000	E	M	72	67	53	23 $\frac{3}{32}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	16 $\frac{1}{2}$	7 $\frac{1}{2}$	19 $\frac{1}{16}$ x 15 $\frac{1}{16}$
21AVP4-B/ 21AUP4-B/ 21AVP4-A/ 21AUP4-A	G	*Yes	FG	2500	2000	E	M	72	67	53	23 $\frac{13}{32}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	16 $\frac{1}{2}$	7 $\frac{1}{2}$	19 $\frac{1}{16}$ x 15 $\frac{1}{16}$
21AWP4	G	*Yes	FG	2500	2000	M	M	72	67	53	23 $\frac{13}{32}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	16 $\frac{1}{2}$	7 $\frac{1}{2}$	19 $\frac{1}{16}$ x 15 $\frac{1}{16}$
21BTP4	G	*Yes	FG	2500	2000	E	M	90	85	68	20 $\frac{3}{8}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	16 $\frac{1}{2}$	7 $\frac{1}{2}$	19 $\frac{1}{16}$ x 15 $\frac{1}{16}$
21CBP4-A	G	*Yes	FG	2500	2000	E	M	90	85	68	18 $\frac{3}{8}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	16 $\frac{1}{2}$	5 $\frac{1}{2}$	19 $\frac{1}{16}$ x 15 $\frac{1}{16}$
21CEP4	G	*Yes	FG	2500	2000	E	M	110	105	87	14 $\frac{3}{4}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	16 $\frac{1}{2}$	5 $\frac{7}{16}$	19 $\frac{1}{16}$ x 15 $\frac{1}{16}$
21DFP4	G	*Yes	FG	2500	1700	E	M	110	105	87	14 $\frac{3}{4}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	16 $\frac{1}{2}$	5 $\frac{7}{16}$	19 $\frac{1}{16}$ x 15 $\frac{1}{16}$
21EP4	G	No	Same as 21EP4-A, except has no external conductive coating.													
21EP4-A	G	No	FG**	750	500	M	M	70	65	50	23 $\frac{3}{8}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	15 $\frac{1}{16}$	7 $\frac{1}{2}$	19 $\frac{1}{8}$ x 13 $\frac{3}{8}$
21EP4-B	G	*Yes	Same as 21EP4-A, except has aluminized screen.													
21FP4-A	G	No	FG**	750	500	E	M	70	65	50	23 $\frac{3}{8}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	15 $\frac{1}{16}$	7 $\frac{1}{2}$	19 $\frac{1}{8}$ x 13 $\frac{3}{8}$
21FP4-C	G	*Yes	Same as 21FP4-A, except has aluminized screen.													
21MP4	M	No	FFG	None	None	E	M	70	66	50	22 $\frac{3}{8}$	21	19 $\frac{27}{32}$	15 $\frac{1}{16}$	7 $\frac{1}{2}$	18 $\frac{1}{2}$ x 13 $\frac{1}{16}$
21YP4	G	No	FG	750	500	E	M	70	65	50	23 $\frac{1}{2}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	15 $\frac{1}{16}$	7 $\frac{1}{2}$	19 $\frac{1}{16}$ x 14 $\frac{3}{16}$
21YP4-A	G	*Yes	Same as 21YP4, except has aluminized screen.													
21ZP4-A	G	No	FG	750	500	M	M	70	65	50	23 $\frac{1}{2}$	21 $\frac{1}{2}$	20 $\frac{3}{8}$	15 $\frac{1}{16}$	7 $\frac{1}{2}$	19 $\frac{1}{16}$ x 14 $\frac{3}{16}$
21ZP4-B	G	*Yes	Same as 21ZP4-A, except has aluminized screen.													
24ADP4/ 24VP4-A/ 24CP4-A/ 24TP4	G	*Yes	FG	2500	2000	M	M	90	85	68	21 $\frac{1}{2}$	24 $\frac{1}{8}$	22 $\frac{1}{16}$	18 $\frac{9}{16}$	7 $\frac{1}{2}$	21 $\frac{1}{16}$ x 16 $\frac{7}{8}$
24AEP4	G	*Yes	FG	2500	2000	E	M	90	85	68	19 $\frac{1}{2}$	24 $\frac{1}{8}$	22 $\frac{1}{16}$	18 $\frac{9}{16}$	5 $\frac{1}{2}$	21 $\frac{1}{16}$ x 16 $\frac{7}{8}$
24AHP4	G	*Yes	FG	2500	2000	E	M	110	105	87	16 $\frac{3}{8}$	24 $\frac{1}{8}$	22 $\frac{1}{16}$	18 $\frac{9}{16}$	5 $\frac{7}{16}$	21 $\frac{1}{16}$ x 16 $\frac{7}{8}$
24DP4-A/ 24YP4	G	*Yes	FG	2500	2000	E	M	90	85	68	21 $\frac{1}{2}$	24 $\frac{1}{8}$	22 $\frac{1}{16}$	18 $\frac{9}{16}$	7 $\frac{1}{2}$	21 $\frac{1}{16}$ x 16 $\frac{7}{8}$

Light face = Discontinued type.

G = Glass rectangular.

M = Metal rectangular.

CL = Clear glass.

FFG = Frosted Filterglass.

FG = Filterglass.

M = Magnetic.

E = Electrostatic.

Ⓞ = Glass round.

Ⓜ = Metal round.

Note:

All picture tubes shown have 6.3-volt/0.6-ampere heaters except types 9AP4 and 12AP4 which have 2.5-volt/2.1-ampere heaters and types 14ATE4 and 17CDP4 which have 8.4-volt 450-milliamper heaters.

⊕ Spherical, unless otherwise specified.

⊕⊕ Cylindrical faceplate.

† At ultor lip-terminal.

* At faceplate.

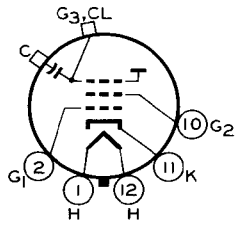
■ Projection type.

⊕⊕ This type has a flat, aluminized, Filterglass, phosphor, screen plate.

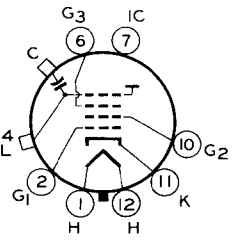
⊕ Deflection factors (dc/in.) for typical operating conditions shown:

DJ₁ & DJ₂ (near screen)
186 to 246

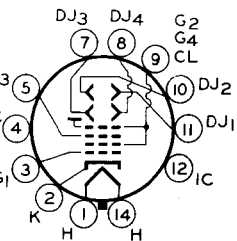
DJ₁ & DJ₂ (near base)
138 to 204



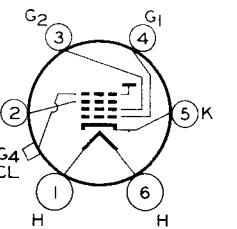
A
ULTOR = G₃ + CL



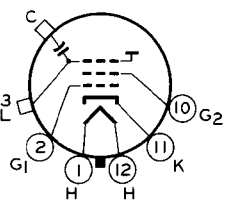
B
ULTOR = G₄ + CL
FOCUSING ELECTRODE = G₃



C
ULTOR = G₂ + G₄ + CL
FOCUSING ELECTRODE = G₃



D
ULTOR = G₄ + CL
FOCUSING ELECTRODE = G₃



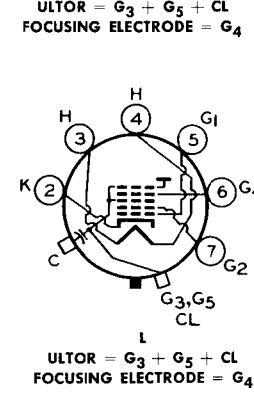
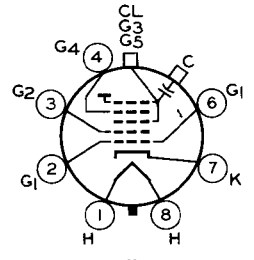
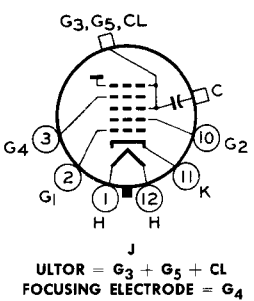
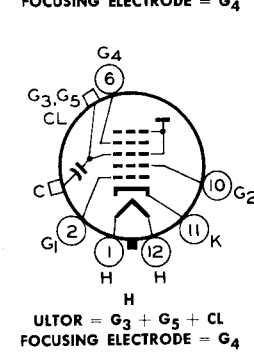
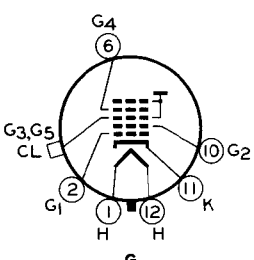
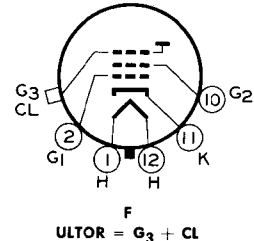
E
ULTOR = G₃ + CL

CHARACTERISTICS CHART (Cont'd)

High Voltage Terminal	Bas-ing	Maximum Ratings						Typical Operating Conditions in Grid-Drive Service						P M 100-Trip Magnet Min. Cycles	RC4 Type
		Final High-Voltage Electrode (Over*) Volts	Focusing Electrode Volts	Grid-No. 2 Volts	Grid-No. 1 Volts	Peak Heater-Cathode Volts		Final High-Voltage Electrode (Over*) Volts	Grid-No. 2 Volts	Focusing Electrode Volts	Grid-No. 1 Volts For Visual Estimation of Focused Spot				
						H(-)									
						During Warm-Up*	After Warm-Up								
H(+)															
Black-and-White Types (Cont'd)															
Cavity Cap	A	16000	—	410	-125	410	150	150	12000	300	—	-28 to -72	29	17QP4	
Cavity Cap	A	18000	—	500	-125	410	150	150	12000	300	—	-28 to -72	31	17QP4-A	
Metal-Shell Lip	G	16000	+1000 -500*	500	-125	410	180	180	14000	300	-55 to +300 -65 to +350	-28 to -72	31	17TP4	
Ratings and typical operating conditions are same as for type 19AP4-B.															
Ratings and typical operating conditions are same as for type 19AP4-B.															
Metal-Shell Lip	F	16000	—	410	-125	410	150	150	12000	300	—	-28 to -72	29	19AP4-B	
Ratings and typical operating conditions are same as for type 19AP4-B.															
Cavity Cap	F	18000	—	410	-125	410	150	150	14000	300	—	-28 to -72	31	20CP4	
Cavity Cap	A	18000	—	410	-125	410	180	180	14000	300	—	-28 to -72	31	20DP4-A/ 20CP4-A	
Cavity Cap	A	18000	—	410	-125	410	180	180	14000	300	—	-28 to -72	31	20DP4-C/ 20CP4-D	
Cavity Cap	H	16000	+1000 -500*	500	-125	410	180	180	14000	300	-55 to +300 -65 to +350	-28 to -72	31	20HP4-A/ 20MP4	
Cavity Cap	H	16000	+1000 -500*	500	-125	410	180	180	14000	300	-55 to +300 -65 to +350	-28 to -72	33	20HP4-D	
Cavity Cap	A	20000	—	500	-140	410	180	180	16000	300	—	-28 to -72	33	21ACP4-A/ 21BSP4	
Cavity Cap	H	18000	—	500	-140	410	180	180	18000	400	—	-37 to -96	35	21ALP4	
All other ratings and typical operating conditions are same as for type 21ALP4-B/21ALP4-A.															
Cavity Cap	H	20000	+1000 -500*	500	-140	410	180	180	16000	300	-65 to +350 -75 to +400	-28 to -72	33	21ALP4-B/ 21ALP4-A	
Cavity Cap	A	18000	—	500	-140	410	180	180	16000	300	—	-28 to -72	33	21AMP4-A	
Metal-Shell Lip	F	18000	—	500	-125	410	180	180	14000	300	—	-28 to -72	31	21AP4	
Ratings and typical operating conditions are same as for type 21ALP4-B/21ALP4-A.															
Cavity Cap	H	18000	+1000 -500*	500	-140	410	180	180	16000	300	-65 to +350 -75 to +400	-28 to -72	33	21ATP4-A/ 21ATP4	
Cavity Cap	H	20000	+1000 -500*	500	-140	410	180	180	16000	300	-65 to +350 -75 to +400	-28 to -72	33	21AVP4-B/ 21AUP4-B/ 21AVP4-A/ 21AUP4-A	
Cavity Cap	A	18000	—	500	-140	410	180	180	16000	300	—	-28 to -72	33	21AWP4	
Ratings and typical operating conditions are same as for type 21ALP4-B.															
Cavity Cap	H	20000	+1000 -500	500	-140	410	180	180	16000	300	0 to +450	-28 to -72	None	21CBP4-A	
Cavity Cap	K	18000	+1000 -500	500	-140	—	180	180	14000	300	0 to +400	-28 to -72	None	21CEP4	
Ratings and typical operating conditions are same as for type 21CEP4.															
Ratings and typical operating conditions are same as for type 21EP4-A.															
Cavity Cap	F	—	—	—	—	—	—	—	14000	300	—	-28 to -72	31	21DFP4	
Cavity Cap	A	18000	—	500	-125	410	180	180	16000	300	—	-28 to -72	33	21EP4-A	
Ratings and typical operating conditions are same as for type 21EP4-A.															
Cavity Cap	H	18000	+1000 -500*	500	-125	410	180	180	14000	300	-55 to +300 -65 to +350	-28 to -72	31	21FP4-A	
Ratings and typical operating conditions are same as for type 21FP4-A.															
Metal-Shell Lip	G	16000	+1000 -500*	500	-125	410	180	180	14000	300	-55 to +300 -65 to +350	-28 to -72	31	21MP4	
Cavity Cap	H	18000	+1000 -500*	500	-140	410	180	180	16000	300	-65 to +350 -70 to +395	-28 to -72	33	21YP4	
Ratings and typical operating conditions are same as for type 21YP4.															
Cavity Cap	A	18000	—	500	-140	410	180	180	16000	300	—	-28 to -72	33	21ZP4-A	
Ratings and typical operating conditions are same as for type 21ZP4-A.															
Cavity Cap	A	22000	—	500	-140	410	180	180	16000	300	—	-28 to -72	33	24ADP4/ 24VP4-A/ 24CP4-A/ 24TP4	
Cavity Cap	H	20000	+1000 -500	500	-140	410	180	180	18000	300	-50 to +350	-28 to -72	None	24AEP4	
Cavity Cap	K	20000	+1000 -500	500	-140	410	180	180	14000	300	-50 to +350 -50 to +350	-28 to -72	None	24AHP4	
Cavity Cap	H	20000	+1000 -500*	500	-140	410	180	180	16000	300	-65 to +350 -75 to +400	-28 to -72	33	24DP4-A/ 24YP4	

* ULTOR is defined as the electrode, or the electrode in combination with one or more additional electrodes connected within the tube to it, to which is applied the highest dc voltage for accelerating the electrons in the beam prior to its deflection.
 † Positive bias value = 0 volts; positive peak value = -2 volts.

• During equipment warm-up not exceeding 15 seconds.
 ∞ Grid No. 2 connected to final high-voltage electrode within tube.
 △ Each gun.
 ‡ This value has been specified to take care of the condition where an ac voltage is provided for dynamic focusing.



Type	Envelope	Aluminized Screen Asterisk (*) denotes "Silvermax" type	Faceplate ^φ	External Conductive Coating		Focusing Method	Deflection Method	Approx. Deflection Angle Degrees			Maximum Dimensions inches			Neck Length inches	Minimum Screen Size inches	
				Max. μft	Min. μft			Diag.	Hertz	Vert.	Overall Length	Envelope Dia. or Diameter	Width			Height
Black-and-White Types (Cont'd)																
27MP4	M	* Yes	FFG	None	None	M	M	90	85	69	22 ³ / ₁₆	27 ³ / ₈	25 ³ / ₁₆	20 ³ / ₈	7 ¹ / ₂	23 ³ / ₁₆ x 18 ¹ / ₈
Color Types																
15GP22**	G	Yes	CL	3000	1500	E	M	—	45	35	26 ¹ / ₈	14 ²⁵ / ₃₂ *	—	—	10 ³ / ₈	11 ¹ / ₂ x 8 ⁵ / ₈
21AXP22	M	Yes	FG	None	None	E	M	—	70	55	25 ³ / ₁₆	20 ¹¹ / ₁₆ †	—	—	9 ²¹ / ₃₂	19 ¹ / ₁₆ x 15 ¹ / ₄
21AXP22-A	M	Yes	FG	None	None	E	M	—	70	55	25 ³ / ₁₆	20 ¹¹ / ₁₆ †	—	—	9 ²¹ / ₃₂	19 ¹ / ₁₆ x 15 ¹ / ₄
21CYP22	G	Yes	FG	2500	2000	E	M	—	70	55	25 ¹³ / ₃₂	20 ¹⁵ / ₁₆	—	—	9 ⁵ / ₈	19 ¹ / ₄ x 15 ³ / ₂

Light face = Discontinued type.

- G = Glass rectangular.
- M = Metal rectangular.
- CL = Clear glass.
- FFG = Frosted Filterglass.
- G = Glass round.
- M = Metal round.
- FG = Filterglass.
- M = Magnetic.
- E = Electrostatic.

Note:
All picture tubes shown have 6.3-volt/0.6-ampere heaters except types 9AP4 and 12AP4 which have 2.5-volt/2.1-ampere heaters and types 14ATP4 and 17CDP4 which have 8.4-volt/450-milliamper heaters.

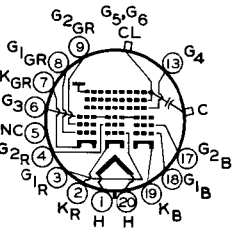
φ Spherical, unless otherwise specified.
 ** At faceplate.
 * At faceplate.
 † At ultror lip-terminal.

** This type has a flat, aluminized, Filterglass, phosphor-dot, screen plate.

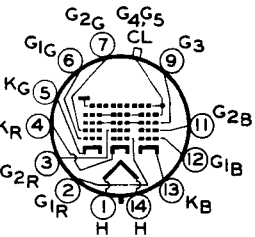
○ Deflection factors (dc/in.) for typical operating conditions shown:

DJ₁ & DJ₂ (near screen)
186 to 246

DJ₁ & DJ₂ (near base)
150 to 204



M
ULTOR = G₅ + G₆ + CL
FOCUSING ELECTRODE = G₃



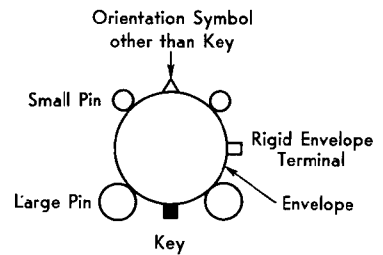
N
ULTOR = G₄ + G₅ + CL
FOCUSING ELECTRODE = G₃

LEGEND FOR BASE AND ENVELOPE CONNECTION DIAGRAMS

Bottom Views

Subscripts B, D, HP, HX, P, T, and TR indicate, respectively, beam unit, diode unit, heptode unit, hexode unit, pentode unit, triode unit, and tetrode unit in multi-unit types.

- | | |
|--|--|
| <ul style="list-style-type: none"> BC = Base Sleeve BS = Base Shell C = External Conductive Bulb Coating CL = Collector DJ = Deflecting Electrode ES = External Shield F = Filament F_M = Filament Mid-Tap G = Grid H = Heater HL = Heater Tap for Panel Lamp | <ul style="list-style-type: none"> H_M = Heater Mid-Tap IC = Internal Connection—Do Not Use • = Gas-Type Tube IS = Internal Shield K = Cathode NC = No Connection P = Plate (Anode) RC = Ray-Control Electrode S = Shell TA = Target U = Unit |
|--|--|

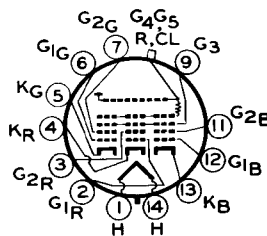


CHARACTERISTICS CHART (Cont'd)

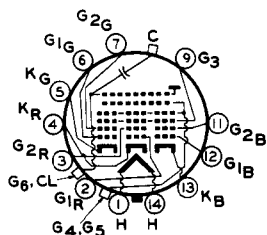
High Voltage Terminal	Biasing	Maximum Ratings						Typical Operating Conditions in Grid-Drive Service				P M Ion-Trap Magnet Min. Gausses	RCA Type	
		Final High-Voltage Electrode (Ultor*) Volts	Focusing Electrode Volts	Grid-No. 2 Volts	Grid-No. 1 Volts§	Peak Heater-Cathode Volts			Final High-Voltage Electrode (Ultor*) Volts	Grid-No. 2 Volts	Focusing Electrode Volts			Grid-No. 1 Volts For Visual Extinction of Focused Raster
						During Warm-Up	After Warm-Up	H(+)						
Black-and-White Types (Cont'd)														
Metal-Shell Lip	F	18000	—	500	-125	410	180	180	16000	300	—	-28 to -72	33	27MP4
Color Types														
Metal Flange	M	20000	5000	500 ^Δ	-200 ^Δ	410	180	180	For additional data, refer to technical bulletin available on request.				None	15GP22
Metal-Shell Lip	N	25000	6000	800 ^Δ	-400 ^Δ	410	180	180	For additional data, refer to technical bulletin available on request.				None	21AXP22
Metal Shell	O	25000	6000	800 ^Δ	-400 ^Δ	410	180	180	For additional data, refer to technical bulletin available on request.				None	21AXP22-A
Cavity Cap	P	25000	6000	600 ^Δ	-400 ^Δ	410	180	180	For additional data, refer to technical bulletin available on request.				None	21CYP22

* ULTOR is defined as the electrode, or the electrode in combination with one or more additional electrodes connected within the tube to it, to which is applied the highest dc voltage for accelerating the electrons in the beam prior to its deflection.
 § Positive bias value = 0 volts; positive peak value = 2 volts.

• During equipment warm-up not exceeding 15 seconds.
 ∞ Grid No. 2 connected to final high-voltage electrode within tube.
 Δ Each gun.
 ^ This value has been specified to take care of the condition where an ac voltage is provided for dynamic focusing.



ULTOR = G₄ + G₅ + CL + R
 FOCUSING ELECTRODE = G₃



P
 CAP OVER PIN NO. 1:
 ULTOR = G₄ + G₅
 CAP OVER PIN NO. 2:
 G₆ + CL + HIGH-VOLTAGE TERMINAL. Connect High-Voltage Supply to this Cap and also connect 50,000-ohm resistor between this Cap and the Cap over Pin No. 1 (Ultor Cap).
 FOCUSING ELECTRODE = G₃

KEY TO TUBE DIMENSIONS

Symbol	Maximum Length	Overall Diameter	Symbol	Maximum Length	Overall Diameter	Symbol	Maximum Length	Overall Diameter	Symbol	Maximum Length	Overall Diameter	Symbol	Maximum Length	Overall Diameter
A	1 1/2"	3 1/8"	B4a	3 1/8"	2 1/8"	C6	3 7/8"	1 3/8"	D6	4 1/8"	1 1/8"	E	5"	1 9/16"
A1	1 1/2"	3 1/8"	B5	2 3/8"	1 3/8"	C9a	3 1/8"	1 1/8"	D7	4 1/8"	1 1/8"	E0	5"	1 3/8"
A1a	1 1/2"	1 1/8"	B5a	2 3/8"	2"	C10	3 1/8"	1 3/8"	D8	4 1/8"	1 1/8"	E0a	5 1/8"	1 3/8"
A1b	1 1/2"	1 1/8"	B5b	2 1/8"	1 5/8"	C10a	3 1/8"	1 1/8"	D9	4 1/8"	1 1/8"	E0b	5 1/8"	2 1/8"
B0	2 1/8"	2 1/8"	C0	3"	1 3/8"	C10b	3 1/8"	1 3/8"	D10	4 1/8"	1 1/8"	E1	5 1/8"	1 1/8"
B0a	2 1/8"	1 1/8"	C0a	3 1/8"	1 3/8"	C11	3 1/8"	1 3/8"	D11	4 1/8"	1 1/8"	E1a	5 1/8"	1 3/8"
B0b	2 1/8"	1 1/8"	C1	3 1/8"	1 1/8"	C11a	3 1/8"	1 1/8"	D11a	4 1/8"	1 3/8"	E2	5 1/8"	1 1/8"
B0c	2 1/8"	1 3/8"	C2	3 1/8"	1 1/8"	D1	4"	1 1/8"	D11b	4 1/8"	1 3/8"	E2a	5 1/8"	1 3/8"
B1	2 1/8"	2 1/8"	C2a	3 1/8"	1 1/8"	D1a	4"	1 1/8"	D12	4 1/8"	1 1/8"	E3	5 1/8"	2 1/8"
B1a	2 1/8"	1 1/8"	C2b	3 1/8"	1 1/8"	D2	4 1/8"	1 3/8"	D12a	4 1/8"	1 1/8"	E3a	5 1/8"	2 1/8"
B2	2 1/8"	1 1/8"	C3	3 1/8"	1 1/8"	D2a	4 1/8"	1 1/8"	D12b	4 1/8"	1 3/8"	F1	5 1/8"	2 1/8"
B3	2 1/8"	1 1/8"	C4	3 1/8"	1 1/8"	D3	4 1/8"	1 1/8"	D13	4 1/8"	1 1/8"	F1a	6 1/8"	2 1/8"
B4	2 1/8"	1 1/8"	C5	3 1/8"	1 3/8"	D4	4 1/8"	1 1/8"	D13a	4 1/8"	1 1/8"	G1	8"	2 1/8"

TECHNICAL PUBLICATIONS

ELECTRON TUBES—

- **RCA TUBE HANDBOOK—HB-3** (7 $\frac{3}{8}$ " x 5"). Five deluxe 2-inch-capacity binders imprinted in gold. The bible of the industry—contains over 3100 pages of loose-leaf data and curves on RCA receiving tubes, picture tubes, cathode-ray tubes, phototubes, special tubes, and semiconductor devices. Available on subscription basis. Price \$17.50* including service for first year. Write to Commercial Engineering for descriptive folder and order form.
- **RCA RECEIVING TUBE MANUAL—RC-18** (8 $\frac{3}{8}$ " x 5 $\frac{3}{8}$ ")—384 pages. Revised, expanded, and brought up to date. Contains the latest receiving tubes, including types for black-and-white and color television applications. Features tube theory written for the layman, application data, Resistance-Coupled Amplifier Section, and several new circuits for high-fidelity audio amplifiers. Features lie-flat binding. Price 75 cents.*
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- **RCA POWER-TUBE FITTINGS—PTF-1012A** (10 $\frac{1}{8}$ " x 8 $\frac{3}{8}$ ")—24 pages. Lists 39 power-tube fittings designed for supporting and cooling power tubes, and illustrates their use with power tubes made by RCA and other manufacturers. Includes exploded-view assembly drawings as well as detail drawings of all fittings. Price 25 cents.*
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 - **TV SERVICING, SUPPLEMENT 1.—TVS-1031** (10 $\frac{1}{8}$ " x 8 $\frac{3}{8}$ ")—12 pages. This new booklet contains an article by John R. Meagher on solving trouble-shooting problems in those hard-to-service television receivers known to service technicians as "tough" sets or "dogs". Emphasizes time-saving component-checking techniques and proper use of test equipment. Price 15 cents.*
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 - **PRACTICAL COLOR TELEVISION, SUPPLEMENT 1.—**(11" x 8 $\frac{1}{2}$ ")—Contains 36 pages plus fold-out schematic and block diagrams; describes theory, operation and servicing of large-screen color TV receiver utilizing RCA-21AXP22 color kinescope; includes 55 black-and-white and color illustrations including schematic and block diagrams, wave-forms, and explanations of color circuits and adjustments. Price 75 cents.*
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Copies of the publications listed above may be obtained as follows:

ELECTRON TUBES	TRANSISTORS, SEMICONDUCTOR DIODES
From your RCA Tube Distributor	From your RCA Transistor Distributor
or	or
From RCA, Commercial Engineering, Electron Tube Division, Harrison, New Jersey	From RCA, Commercial Engineering, Semiconductor Division, Somerville, New Jersey

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