

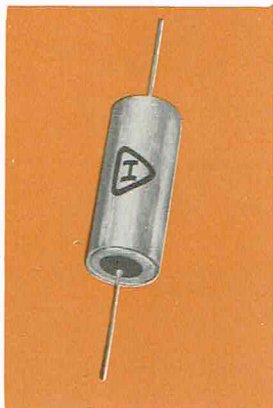
# DATA·LOG

## HOPKINS *Engineering* COMPANY

JUNE 1957

NO. C-104

### POLYSTYRENE FILM CAPACITORS



**INTRODUCTION** — Polystyrene capacitors have found their way into many of the high quality compact circuitries of modern electronics where high reliability, extreme stability and close tolerances are desired. Polystyrene capacitors can be produced with tolerances as low as  $\pm 1\%$  with guaranteed accuracy.

**CONSTRUCTION** — HOPKINS ENGINEERING COMPANY'S polystyrene capacitors are constructed of the highest quality polystyrene film and foil. These capacitors are available in hermetically sealed non-magnetic metal tubes, hermetically sealed bathtub containers as single, dual or decade units and in film wrapped sections which are endfilled with a high grade plastic dielectric.

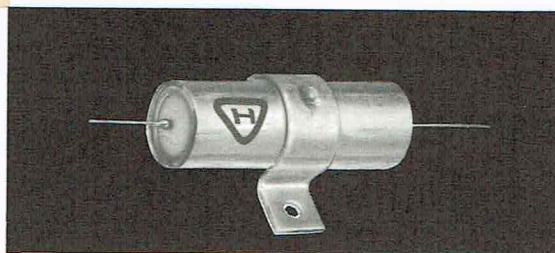
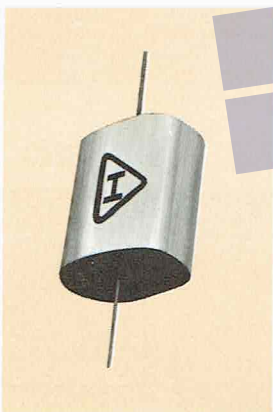
**TEMPERATURE** — All types of polystyrene capacitors manufactured by HOPKINS ENGINEERING COMPANY will operate without adverse effects from  $-55^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .

**POWER FACTOR** — The power factor shall not exceed .05% when measured at 1,000 cycles and  $25^{\circ}\text{C}$ .

**INSULATION RESISTANCE** — The insulation resistance will equal or exceed 500,000 megohm microfarads when measured at  $25^{\circ}\text{C}$ .

**CAPACITANCE TOLERANCE** — Standard tolerance is  $\pm 20\%$ . Closer tolerances are available down to  $\pm 1\%$  upon request. This tolerance is measured at or referred to 1,000 cycles at  $25^{\circ}\text{C}$ .

**CAPACITANCE STABILITY** — Polystyrene capacitors have a stability to .1% per cycle with a temperature coefficient of  $-100$  PPM per degree C.



**HOPKINS**

**DIELECTRIC STRENGTH** — Polystyrene capacitors will withstand a flash test voltage between terminals of 150% of the rated voltage at  $25^{\circ}\text{C}$  and 125% of the rated voltage at  $85^{\circ}\text{C}$ . These units possess a dielectric absorption of .05%.

**LIFE TEST** — They will withstand 125% of the rated voltage for 250 hours at  $85^{\circ}\text{C}$ . Surge current should be limited to 5 millamperes.

**TERMINALS AND MOUNTINGS** — The standard terminals shall be of copper clad wire with a length of  $1\frac{1}{8}$  inches long,  $-0 +1$  and of avial construction. These units are available in all the various styles.

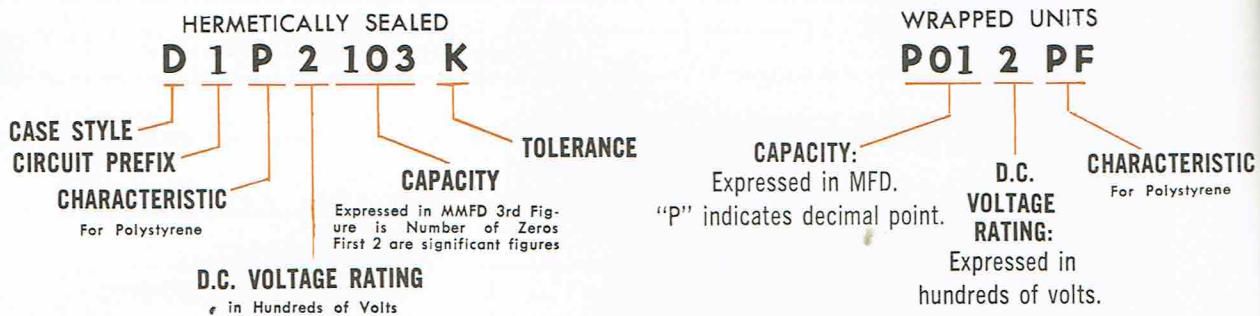


# POLYSTYRENE

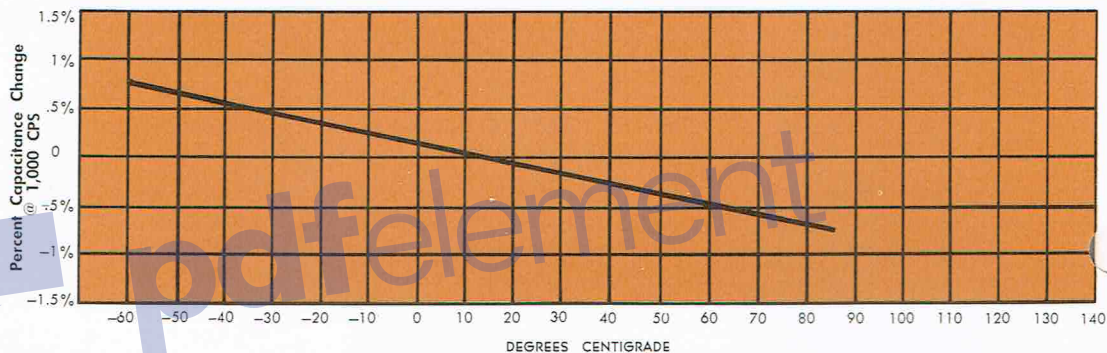
Remove Watermark Now

## Catalog Numbering System

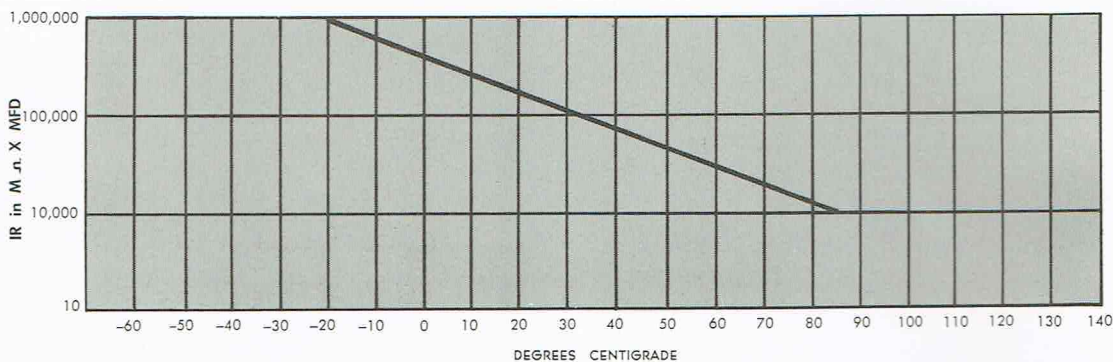
EXAMPLE: →



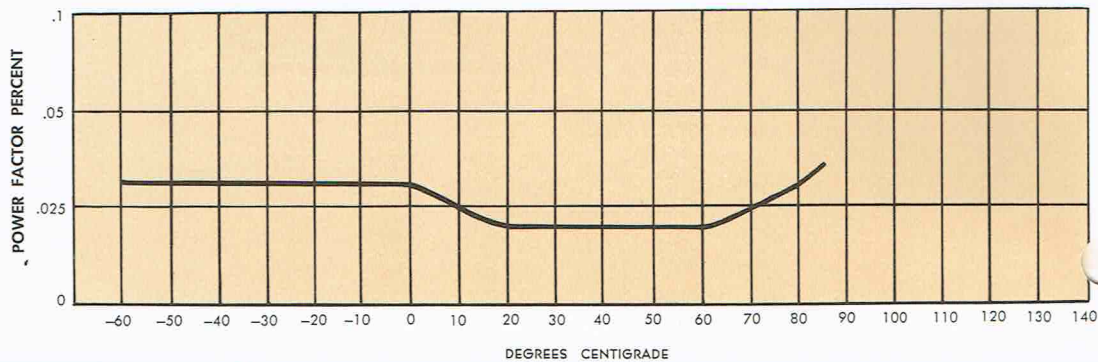
### CAPACITANCE VS TEMPERATURE



### INSULATION RESISTANCE VS TEMPERATURE



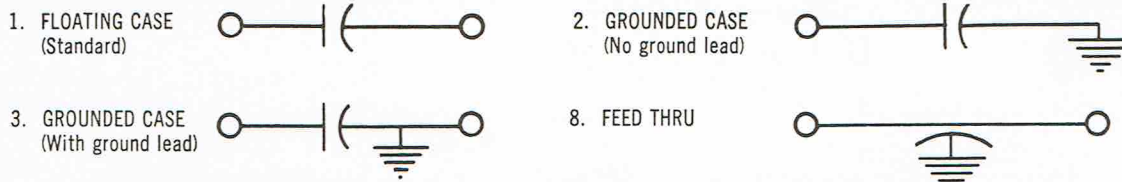
### POWER FACTOR VS TEMPERATURE



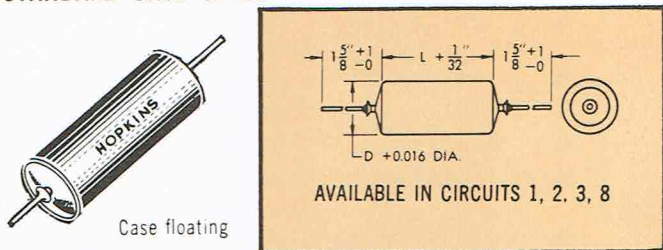
# FILM CAPACITORS

## CASE STYLES

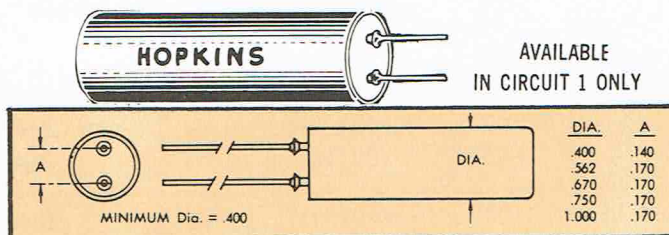
### CIRCUIT DESIGNATIONS



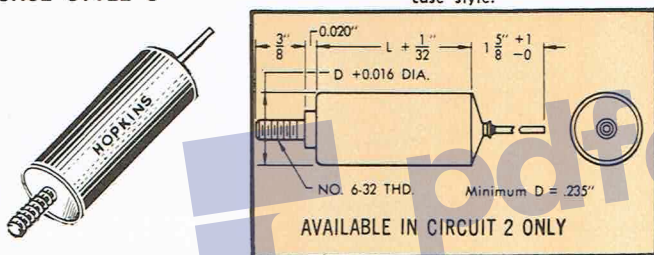
### STANDARD CASE STYLE



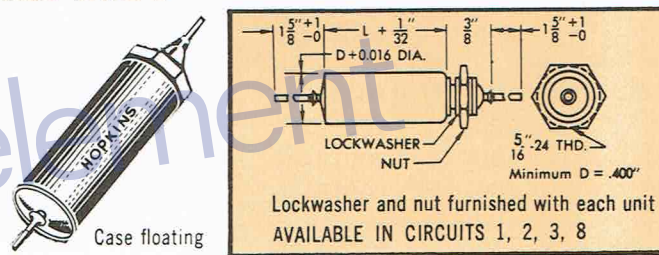
### CASE STYLE B



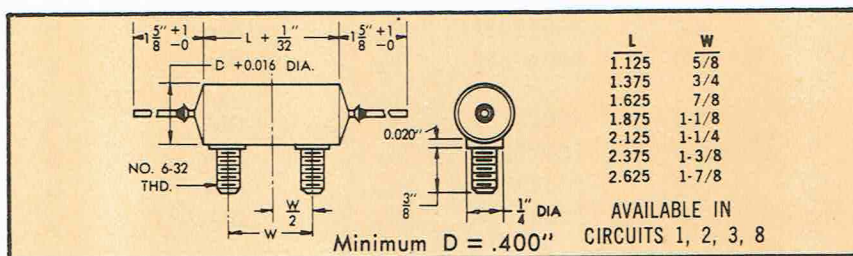
### CASE STYLE C



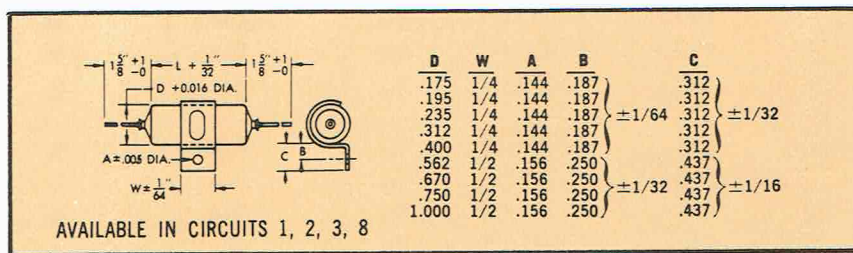
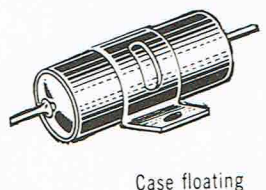
### CASE STYLE D



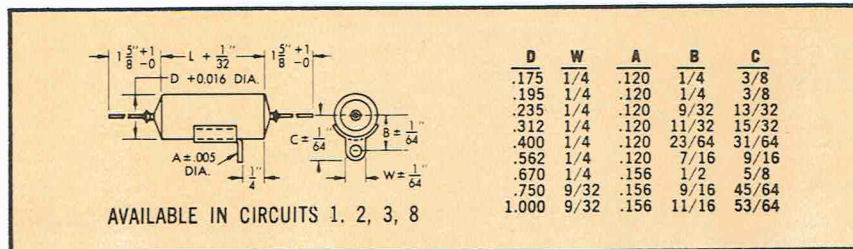
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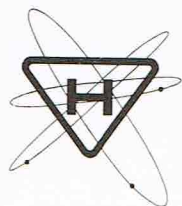


### CASE STYLE J



### CASE STYLE L





# POLYSTYRENE.

CAP.	VOLTS	PART NO.	WRAPPED UNITS			HERMETICALLY SEALED		
			T ± 1/32	W ± 1/32	L ± 1/32	PART NO.	DIA.	LGTH.
.001	100	P0011PF	5/32	DIA.	3/4	1P1102	.235	3/4
	200	P0012PF	5/32	DIA.	3/4	1P2102	.235	3/4
	400	P0014PF	5/32	DIA.	3/4	1P4102	.235	3/4
	600	P0016PF	5/32	DIA.	3/4	1P6102	.235	3/4
.0012	100	P00121PF	5/32	DIA.	3/4	1P1122	.235	3/4
	200	P00122PF	5/32	DIA.	3/4	1P2122	.235	3/4
	400	P00124PF	5/32	DIA.	3/4	1P4122	.235	3/4
	600	P00126PF	5/32	DIA.	3/4	1P6122	.235	3/4
.0015	100	P00151PF	5/32	DIA.	3/4	1P1152	.235	3/4
	200	P00152PF	5/32	DIA.	3/4	1P2152	.235	3/4
	400	P00154PF	5/32	DIA.	3/4	1P4152	.235	3/4
	600	P00156PF	5/32	DIA.	3/4	1P6152	.235	3/4
.0018	100	P00181PF	3/16	DIA.	3/4	1P1182	.235	3/4
	200	P00182PF	3/16	DIA.	3/4	1P2182	.235	3/4
	400	P00184PF	3/16	DIA.	3/4	1P4182	.235	3/4
	600	P00186PF	3/16	DIA.	3/4	1P6182	.235	3/4
.0022	100	P00221PF	3/16	DIA.	3/4	1P1222	.235	3/4
	200	P00222PF	3/16	DIA.	3/4	1P2222	.235	3/4
	400	P00224PF	3/16	DIA.	3/4	1P4222	.235	3/4
	600	P00226PF	3/16	DIA.	3/4	1P6222	.235	3/4
.0027	100	P00271PF	3/16	DIA.	3/4	1P1272	.235	3/4
	200	P00272PF	3/16	DIA.	3/4	1P2272	.235	3/4
	400	P00274PF	3/16	DIA.	3/4	1P4272	.235	3/4
	600	P00276PF	3/16	DIA.	3/4	1P6272	.235	3/4
.0033	100	P00331PF	3/16	DIA.	3/4	1P1332	.235	3/4
	200	P00332PF	3/16	DIA.	3/4	1P2332	.235	3/4
	400	P00334PF	3/16	DIA.	3/4	1P4332	.235	3/4
	600	P00336PF	3/16	DIA.	3/4	1P6332	.235	3/4
.0039	100	P00391PF	3/16	DIA.	3/4	1P1392	.235	3/4
	200	P00392PF	3/16	DIA.	3/4	1P2392	.235	3/4
	400	P00394PF	3/16	DIA.	3/4	1P4392	.235	3/4
	600	P00396PF	5/32	1/4	7/8	1P6392	.312	7/8
.0047	100	P00471PF	3/16	DIA.	3/4	1P1472	.235	3/4
	200	P00472PF	3/16	DIA.	3/4	1P2472	.235	3/4
	400	P00474PF	3/16	DIA.	3/4	1P4472	.235	3/4
	600	P00476PF	5/32	1/4	7/8	1P6472	.312	7/8

Hermetically sealed units are for a tolerance of ± 20%, if ± 10% tolerance is desired add "K" to part number, if ± 5% is desired add "C" to part number.

# FILM CAPACITORS

CAP.	VOLTS	PART NO.	WRAPPED UNITS			HERMETICALLY SEALED		
			T ± 1/32	W ± 1/32	L ± 1/32	PART NO.	DIA.	LGTH.
.0056	100	P00561PF	3/16	DIA.	3/4	1P1562	.235	3/4
	200	P00562PF	3/16	DIA.	3/4	1P2562	.235	3/4
	400	P00564PF	3/16	DIA.	7/8	1P4562	.312	7/8
	600	P00566PF	3/16	9/32	7/8	1P6562	.312	7/8
.0068	100	P00681PF	3/16	DIA.	3/4	1P1682	.235	3/4
	200	P00682PF	3/16	DIA.	3/4	1P2682	.235	3/4
	400	P00684PF	5/32	1/4	7/8	1P4682	.312	7/8
	600	P00686PF	3/16	9/32	7/8	1P6682	.312	7/8
.0082	100	P00821PF	3/16	DIA.	3/4	1P1822	.235	3/4
	200	P00822PF	3/16	DIA.	3/4	1P2822	.235	3/4
	400	P00824PF	3/16	1/4	7/8	1P4822	.312	7/8
	600	P00826PF	7/32	5/16	7/8	1P6822	.312	7/8
.01	100	P011PF	3/16	DIA.	3/4	1P1103	.235	3/4
	200	P012PF	5/32	1/4	7/8	1P2103	.312	7/8
	400	P014PF	3/16	9/32	7/8	1P4103	.312	7/8
	600	P016PF	1/4	11/32	7/8	1P6103	.400	7/8
.012	100	P0121PF	3/16	DIA.	3/4	1P1123	.235	3/4
	200	P0122PF	3/16	9/32	7/8	1P2123	.312	7/8
	400	P0124PF	7/32	5/16	7/8	1P4123	.312	7/8
	600	P0126PF	9/32	3/8	7/8	1P6123	.400	7/8
.015	100	P0151PF	3/16	DIA.	3/4	1P1153	.235	3/4
	200	P0152PF	5/32	1/4	7/8	1P2153	.312	7/8
	400	P0154PF	1/4	11/32	7/8	1P4153	.400	7/8
	600	P0156PF	7/32	3/8	1 1/8	1P6153	.400	1 1/8
.018	100	P0181PF	5/32	1/4	7/8	1P1183	.312	7/8
	200	P0182PF	5/32	1/4	7/8	1P2183	.312	7/8
	400	P0184PF	1/4	11/32	7/8	1P4183	.400	7/8
	600	P0186PF	5/16	15/32	1 1/8	1P6183	.500	1 1/8
.022	100	P0122PF	5/32	1/4	7/8	1P1223	.312	7/8
	200	P0222PF	9/32	3/8	7/8	1P2223	.400	7/8
	400	P0224PF	9/32	3/8	7/8	1P4223	.400	7/8
	600	P0226PF	5/16	15/32	1 1/8	1P6223	.500	1 1/8
.027	100	P0271PF	5/32	1/4	7/8	1P1273	.312	7/8
	200	P0272PF	9/32	3/8	7/8	1P2273	.400	7/8
	400	P0274PF	1/4	3/8	1 1/8	1P4273	.400	1 1/8
	600	P0276PF	7/16	17/32	1 1/8	1P6273	.562	1 1/8

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# POLYSTYRENE

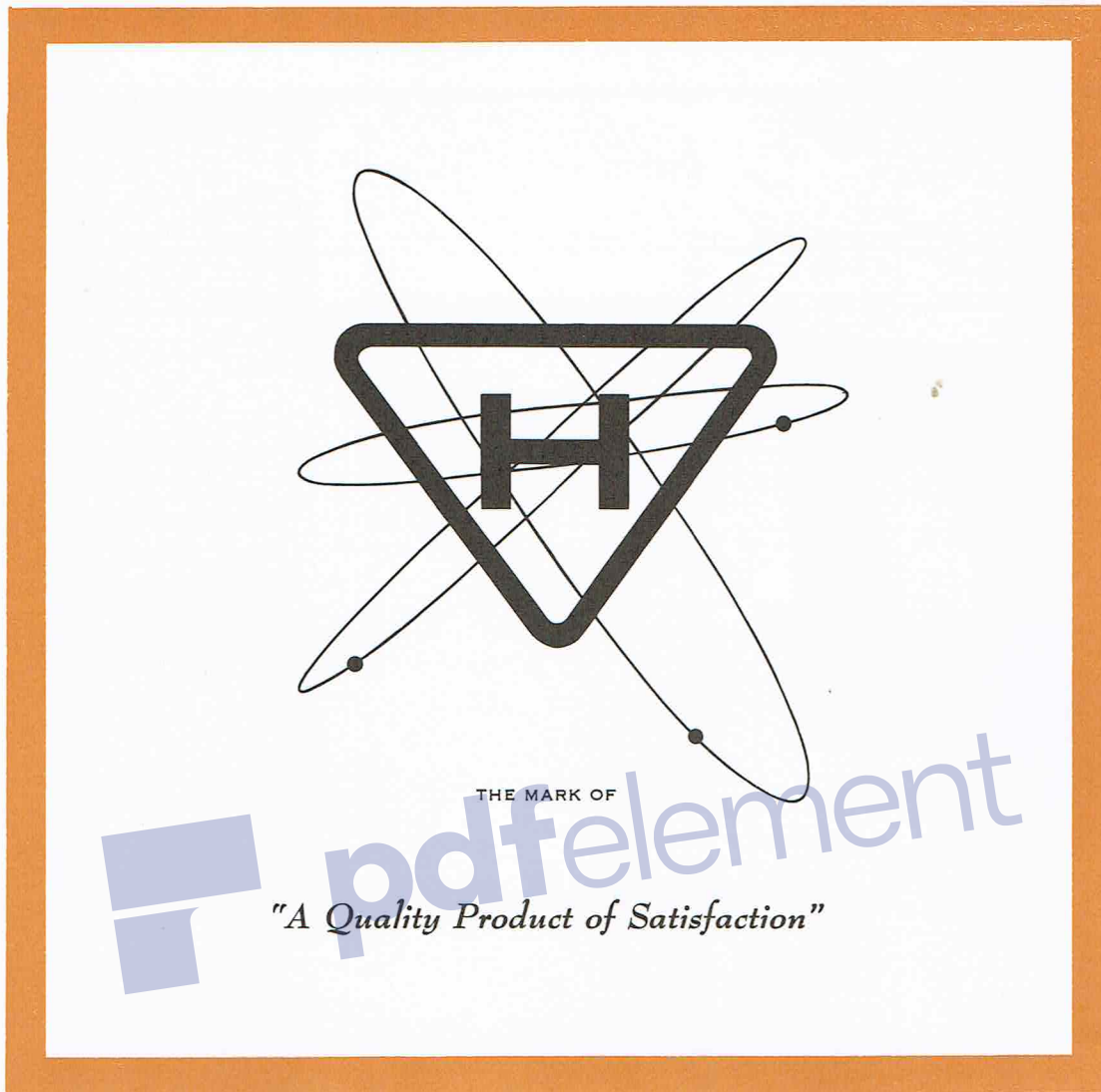
CAP.	VOLTS	PART NO.	WRAPPED UNITS			HERMETICALLY SEALED		
			T ± 1/32	W ± 1/32	L ± 1/32	PART NO.	DIA.	LGTH.
.033	100	P0331PF	3/16	9/32	7/8	1P1333	.312	7/8
	200	P0332PF	1/4	3/8	1 1/8	1P2333	.400	1 1/8
	400	P0334PF	9/32	13/32	1 1/8	1P4333	.400	1 1/8
	600	P0336PF	7/16	17/32	1 1/8	1P6333	.562	1 1/8
.039	100	P0391PF	9/32	3/8	7/8	1P1393	.400	7/8
	200	P0392PF	1/4	3/8	1 1/8	1P2393	.400	1 1/8
	400	P0394PF	5/16	15/32	1 1/8	1P4393	.500	1 1/8
	600	P0396PF	7/16	19/32	1 3/8	1P6393	.562	1 3/8
.047	100	P0471PF	9/32	3/8	7/8	1P1473	.400	7/8
	200	P0472PF	5/16	15/32	1 1/8	1P2473	.500	1 1/8
	400	P0474PF	3/8	1/2	1 1/8	1P4473	.500	1 1/8
	600	P0476PF	7/16	19/32	1 3/8	1P6473	.562	1 3/8
.056	100	P0561PF	1/4	3/8	1 1/8	1P1563	.400	1 1/8
	200	P0562PF	5/16	1/2	1 1/8	1P2563	.500	1 1/8
	400	P0564PF	7/16	17/32	1 1/8	1P4563	.562	1 1/8
	600	P0566PF	7/16	19/32	1 3/8	1P6563	.670	1 3/8
.068	100	P0681PF	9/32	13/32	1 1/8	1P1683	.400	1 1/8
	200	P0682PF	5/16	1/2	1 1/8	1P2683	.500	1 1/8
	400	P0684PF	7/16	17/32	1 1/8	1P4683	.562	1 1/8
	600	P0686PF	7/16	19/32	1 3/8	1P6683	.670	1 3/8
.082	100	P0821PF	9/32	13/32	1 1/8	1P1823	.400	1 1/8
	200	P0822PF	3/8	9/16	1 3/8	1P2823	.562	1 3/8
	400	P0824PF	13/32	5/8	1 3/8	1P4823	.562	1 3/8
	600	P0826PF	7/16	5/8	1 7/8	1P6823	.670	1 7/8
.1	100	P11PF	9/32	13/32	1 1/8	1P1104	.400	1 1/8
	200	P12PF	3/8	9/16	1 3/8	1P2104	.562	1 3/8
	400	P14PF	13/32	5/8	1 3/8	1P4104	.562	1 3/8
	600	P16PF	7/16	21/32	1 7/8	1P6104	.670	1 7/8
.12	100	P121PF	1/4	7/16	1 3/8	1P1124	.400	1 3/8
	200	P122PF	13/32	5/8	1 3/8	1P2124	.562	1 3/8
	400	P124PF	15/32	21/32	1 5/8	1P4124	.562	1 5/8
	600	P126PF	19/32	25/32	1 7/8	1P6124	.750	1 7/8
.15	100	P151PF	9/32	7/16	1 3/8	1P1154	.400	1 3/8
	200	P152PF	15/32	21/32	1 5/8	1P2154	.562	1 5/8
	400	P154PF	15/32	11/16	1 5/8	1P4154	.562	1 5/8
	600	P156PF	5/8	13/16	1 7/8	1P6154	.750	1 7/8

Hermetically sealed units are for a tolerance of ± 20%, if ± 10% tolerance is desired add "K" to part number, if ± 5% is desired add "C" to part number.

# FILM CAPACITORS

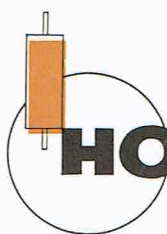
CAP.	VOLTS	PART NO.	WRAPPED UNITS			HERMETICALLY SEALED		
			T ± 1/32	W ± 1/32	L ± 1/32	PART NO.	DIA.	LGTH.
.18	100	P181PF	13/32	5/8	1 3/8	1P1184	.562	1 3/8
	200	P182PF	7/16	2 1/32	1 7/8	1P2184	.670	1 7/8
	400	P184PF	5/8	13/16	1 7/8	1P4184	.750	1 7/8
	600	P186PF	2 1/32	13/16	1 7/8	1P6184	1.000	1 7/8
.22	100	P221PF	13/32	5/8	1 3/8	1P1224	.562	1 3/8
	200	P222PF	15/32	5/8	1 7/8	1P2224	.670	1 7/8
	400	P224PF	9/16	23/32	1 7/8	1P4224	.750	1 7/8
	600	P226PF	2 1/32	13/16	1 7/8	1P6224	1.0	1 7/8
.27	100	P271PF	15/32	3/4	1 3/8	1P1274	.670	1 3/8
	200	P272PF	17/32	1 1/16	1 7/8	1P2274	.670	1 7/8
	400	P274PF	5/8	13/16	1 7/8	1P4274	.750	1 7/8
	600	P276PF	1 1/16	7/8	1 7/8	1P6274	1.000	1 7/8
.33	100	P331PF	17/32	1 1/16	1 3/8	1P1334	.670	1 3/8
	200	P332PF	19/32	25/32	1 7/8	1P2334	.750	1 7/8
	400	P334PF	23/32	7/8	1 7/8	1P4334	1.0	1 7/8
	600	P336PF	3/4	15/16	2 3/8	1P6334	1.0	2 3/8
.39	100	P391PF	13/32	9/16	1 7/8	1P1394	.562	1 7/8
	200	P392PF	2 1/32	13/16	1 7/8	1P2394	1.0	1 7/8
	400	P394PF	25/32	15/16	1 7/8	1P4394	1.0	1 7/8
	600	P396PF	3/4	15/16	2 5/8	1P6394	1.0	2 5/8
.47	100	P471PF	1/2	2 1/32	1 7/8	1P1474	.670	1 7/8
	200	P472PF	23/32	7/8	1 7/8	1P2474	1.0	1 7/8
	400	P474PF	7/8	1 1/32	1 7/8	1P4474	1.0	1 7/8
	600	P476PF	3/4	1	2 5/8	1P6474	1.0	2 5/8
.56	100	P561PF	9/16	23/32	1 7/8	1P1564	.750	1 7/8
	200	P562PF	25/32	3 1/32	1 7/8	1P2564	1.0	1 7/8
	400	P564PF	29/32	1 1/16	1 7/8	1P4564	1.0	1 7/8
.68	100	P681PF	5/8	25/32	1 7/8	1P1684	.750	1 7/8
	200	P682PF	15/16	1 1/16	1 7/8	1P2684	1.000	1 7/8
	400	P684PF	15/16	1 1/16	1 7/8	1P4684	1.000	1 7/8
.82	100	P821PF	2 1/32	13/16	1 7/8	1P1824	.750	1 7/8
	200	P822PF	23/32	1	2 5/8	1P2824	1.000	2 5/8
	400	P824PF	25/32	1	2 5/8	1P4824	1.000	2 5/8
1.0	100	1P1PF	1 1/16	7/8	1 7/8	1P1105	.750	1 7/8
	200	1P2PF	15/16	1 1/16	2 5/8	1P2105	1.000	2 5/8
	400	1P4PF	15/16	1 1/16	2 5/8	1P4105	1.000	2 5/8

Hermetically sealed units are for a tolerance of ± 20%, if ± 10% tolerance is desired add "K" to part number, if ± 5% is desired add "C" to part number.



THE MARK OF

*"A Quality Product of Satisfaction"*



**HOPKINS**

*Engineering*

**COMPANY**

12900 FOOTHILL BOULEVARD  
SAN FERNANDO, CALIFORNIA  
EMPIRE 1-8693