

Aluminum Electrolytic Capacitors

# KZG Series

- Super low ESR/impedance capacitors due to very low resistivity electrolyte
- Rated voltage range : 6.3 to 16V, Nominal capacitance range : 470 to 3,300 $\mu$ F
- Assured lifetime: 2,000 hours at 105°C with the rated ripple current applied
- The KZG series capacitors are designed for computer motherboards
- Non solvent-proof

**Feature!**  
**For PC Motherboards**

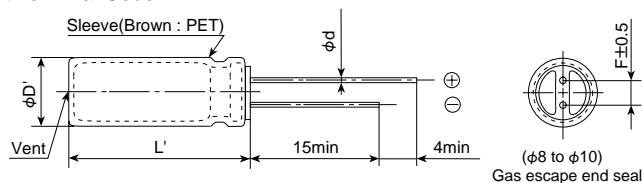


◆ SPECIFICATIONS

| Items  | Characteristics  |                                      |      |      |
|--|--|--------------------------------------|------|------|
| Category   | -40 to +105°C  |                                      |      |      |
| Temperature Range                                      | -40 to +105°C  |                                      |      |      |
| Rated Voltage Range                                    | 6.3 to 16V <sub>dc</sub>   |                                      |      |      |
| Capacitance Tolerance                                  | ±20% (M) (at 20°C, 120Hz)  |                                      |      |      |
| Leakage Current  | I=0.01CV or 3 $\mu$ A, whichever is greater.<br>Where, I : Max. leakage current ( $\mu$ A), C : Nominal capacitance ( $\mu$ F), V : Rated voltage (V <sub>dc</sub> ) (at 20°C after 2 minutes)   |                                      |      |      |
| Dissipation Factor (tan $\delta$ )                     | Rated voltage (V <sub>dc</sub> )   | 6.3V                                 | 10V  | 16V  |
|  | tan $\delta$ (Max.)  | 0.22                                 | 0.19 | 0.16 |
|  | When nominal capacitance exceeds 1,000 $\mu$ F, add 0.02 to the value above for each 1,000 $\mu$ F increase. (at 20°C, 120Hz)  |                                      |      |      |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V <sub>dc</sub> )   | 6.3V                                 | 10V  | 16V  |
|  | Z (-25°C) / Z (+20°C)  | 2                                    | 2    | 2    |
|  | Z (-40°C) / Z (+20°C)  | 3                                    | 3    | 3    |
|  | (at 120Hz)   |                                      |      |      |
| Endurance  | The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current for 2,000 hours at 105°C.<br>The sum of the DC voltage and peak AC voltage must not exceed the full rated voltage of the capacitors.                              |                                      |      |      |
|  | Capacitance change   | ≤±25% of the initial measured value  |      |      |
|  | D.F. (tan $\delta$ )   | ≤200% of the initial specified value |      |      |
|  | Leakage current  | ≤The initial specified value         |      |      |
| Shelf Life   | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements. |                                      |      |      |
|  | Capacitance change   | ≤±25% of the initial measured value  |      |      |
|  | D.F. (tan $\delta$ )   | ≤200% of the initial specified value |      |      |
|  | Leakage current  | ≤The initial specified value         |      |      |

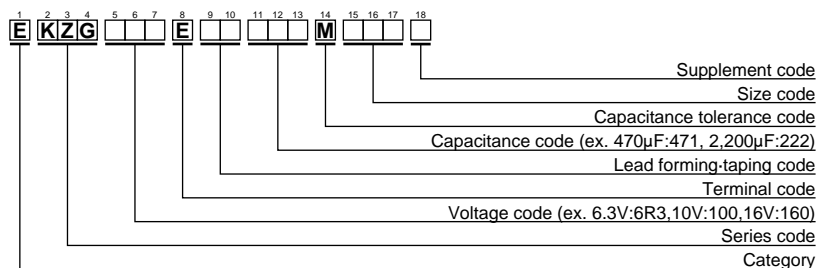
◆ DIMENSIONS [mm]

- Terminal Code : E



|     |            |     |
|-----|------------|-----|
| φD  | 8          | 10  |
| φd  | 0.6        | 0.6 |
| F   | 3.5        | 5.0 |
| φD' | φD+0.5max. |     |
| L'  | L+1.5max.  |     |

◆ PART NUMBERING SYSTEM



Specifications in this bulletin are subject to change without notice.

◆STANDARD RATINGS

| WV(Vdc) | Cap(μF) | Case size<br>φD×L(mm) | Impedance<br>(Ωmax/20°C, 100kHz) | Rated ripple current<br>(mA rms/105°C, 100kHz) | Part No.           |
|---------|---------|-----------------------|----------------------------------|--|--------------------|
| 6.3     | 820     | 8×11.5                | 0.036                            | 1,140  | EKZG6R3E□□821MHB5D |
|         | 1,200   | 8×15                  | 0.028                            | 1,490  | EKZG6R3E□□122MH15D |
|         | 1,500   | 10×12.5               | 0.026                            | 1,540  | EKZG6R3E□□152MJC5S |
|         | 1,800   | 8×20                  | 0.021                            | 1,870  | EKZG6R3E□□182MH20D |
|         | 1,800   | 10×16                 | 0.019                            | 2,000  | EKZG6R3E□□182MJ16S |
|         | 2,200   | 10×20                 | 0.013                            | 2,550  | EKZG6R3E□□222MJ20S |
|         | 3,300   | 10×25                 | 0.012                            | 2,800  | EKZG6R3E□□332MJ25S |
| 10      | 680     | 8×11.5                | 0.036                            | 1,140  | EKZG100E□□681MHB5D |
|         | 1,000   | 8×15                  | 0.028                            | 1,490  | EKZG100E□□102MH15D |
|         | 1,000   | 10×12.5               | 0.026                            | 1,540  | EKZG100E□□102MJC5S |
|         | 1,500   | 8×20                  | 0.021                            | 1,870  | EKZG100E□□152MH20D |
|         | 1,500   | 10×16                 | 0.019                            | 2,000  | EKZG100E□□152MJ16S |
|         | 1,800   | 10×20                 | 0.013                            | 2,550  | EKZG100E□□182MJ20S |
|         | 2,200   | 10×25                 | 0.012                            | 2,800  | EKZG100E□□222MJ25S |
| 16      | 470     | 8×11.5                | 0.036                            | 1,140  | EKZG160E□□471MHB5D |
|         | 680     | 8×15                  | 0.028                            | 1,490  | EKZG160E□□681MH15D |
|         | 680     | 10×12.5               | 0.026                            | 1,540  | EKZG160E□□681MJC5S |
|         | 1,000   | 8×20                  | 0.021                            | 1,870  | EKZG160E□□102MH20D |
|         | 1,000   | 10×16                 | 0.019                            | 2,000  | EKZG160E□□102MJ16S |
|         | 1,500   | 10×20                 | 0.013                            | 2,550  | EKZG160E□□152MJ20S |
|         | 1,800   | 10×25                 | 0.012                            | 2,800  | EKZG160E□□182MJ25S |

□□ : Lead forming / Taping code

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

| Capacitance(μF) | Frequency (Hz) |      |      |      |
|-----------------|----------------|------|------|------|
|                 | 120            | 1k   | 10k  | 100k |
| 470             | 0.50           | 0.85 | 0.94 | 1.00 |
| 680 to 1,800    | 0.60           | 0.87 | 0.95 | 1.00 |
| 2,200 to 3,300  | 0.75           | 0.90 | 0.95 | 1.00 |

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