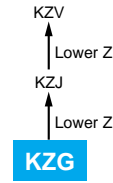


# KZG Series

- 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
- Endurance with ripple current : 2,000 hours at 105 $^{\circ}$ C
- The KZG series capacitors are designed for computer motherboards
- Non solvent-proof
- RoHS Compliant

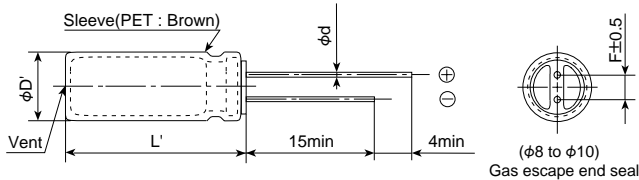


## ◆ SPECIFICATIONS

Items	Characteristics			
Category Temperature Range	-40 to +105 $^{\circ}$ C			
Rated Voltage Range	6.3 to 16V <sub>dc</sub>			
Capacitance Tolerance	$\pm 20\%$ (M) (at 20 $^{\circ}$ C, 120Hz)			
Leakage Current	I = 0.01CV or 3 $\mu$ A, whichever is greater. Where, I : Max. leakage current ( $\mu$ A), C : Nominal capacitance ( $\mu$ F), V : Rated voltage (V <sub>dc</sub> ) (at 20 $^{\circ}$ 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 $^{\circ}$ C, 120Hz)				
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V <sub>dc</sub> )	6.3V	10V	16V
	Z (-25 $^{\circ}$ C) / Z (+20 $^{\circ}$ C)	2	2	2
	Z (-40 $^{\circ}$ C) / Z (+20 $^{\circ}$ C)	3	3	3
(at 120Hz)				
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20 $^{\circ}$ C after subjected to DC voltage with the rated ripple current for 2,000 hours at 105 $^{\circ}$ C.			
	Capacitance change	$\leq \pm 25\%$ of the initial measured value		
	D.F. (tan $\delta$ )	$\leq 200\%$ of the initial specified value		
	Leakage current	$\leq$ The initial specified value		
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20 $^{\circ}$ C after exposing them for 1,000 hours at 105 $^{\circ}$ C without voltage applied.			
	Capacitance change	$\leq \pm 25\%$ of the initial measured value		
	D.F. (tan $\delta$ )	$\leq 200\%$ of the initial specified value		
	Leakage current	$\leq$ The initial specified value		

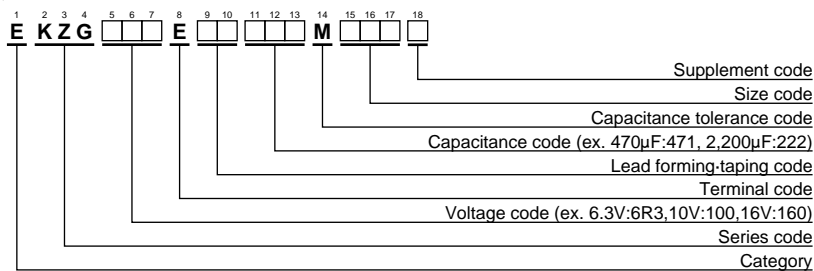
## ◆ DIMENSIONS [mm]

- Terminal Code : E



$\phi D$	8	10
$\phi d$	0.6	0.6
F	3.5	5.0
$\phi D'$	$\phi D + 0.5 \text{max.}$	
L'	L + 1.5max.	

## ◆ PART NUMBERING SYSTEM



Please refer to "A guide to global code (radial lead type)"



## ◆STANDARD RATINGS

WV(Vdc)	Cap(μF)	Case size φD×L(mm)	Impedance (Ωmax/20°C, 100kHz)	Rated ripple current (mA <sub>rms</sub> /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

The endurance of capacitors is shorted with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.