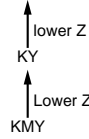


**KZE Series**

- Ultra Low impedance for Personal Computer and Storage Equipment
- Endurance with ripple current: 105°C 2000 to 5000 hours
- Non solvent-proof

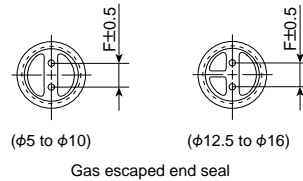
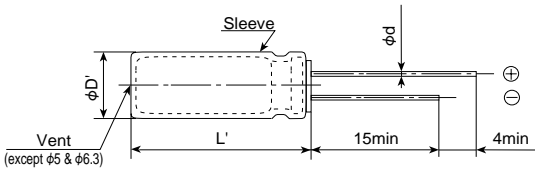
**KZE**



◆ SPECIFICATIONS

Items	Characteristics						
Category							
Temperature Range	-40 to +105°C						
Rated Voltage Range	6.3 to 50V <sub>dc</sub>						
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)						
Leakage Current	I=0.01CV or 3µA, whichever is greater. Where, I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V) (at 20°C after 2 minutes)						
Dissipation Factor (tanδ)	Rated voltage (V <sub>dc</sub> )	6.3V	10V	16V	25V	35V	50V
	tanδ (Max.)	0.22	0.19	0.16	0.14	0.12	0.10
	When nominal capacitance exceeds 1000µF, add 0.02 to the value above for each 1000µF increase. (at 20°C, 120Hz)						
Low Temperature Characteristics (Max. Impedance Ratio)	Z (-25°C) / Z (+20°C)	2max.					
	Z (-40°C) / Z (+20°C)	3max.					
	(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 is applied for the specified period of time at 105°C.						
	Time	φ5 & φ6.3 : 2000hours φ8 : 3000hours φ10 : 4000hours φ12.5 & φ16 : 5000hours					
	Capacitance change	≤±25% of the initial value					
	D.F. (tanδ)	≤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 500 hours at 105°C without voltage applied.						
	Capacitance change	≤±25% of the initial value					
	D.F. (tanδ)	≤200% of the initial specified value					
	Leakage current	≤The initial specified value					

◆ DIMENSIONS (Radial Lead Type=VB) [mm]

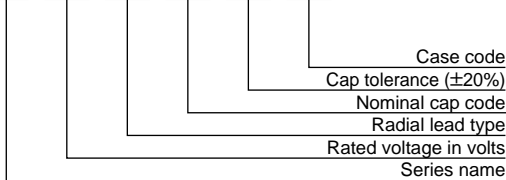


φD	5	6.3	8	10	12.5	16
φd	0.5	0.5	0.6	0.6	0.6	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5
φD'	φD+0.5max.					
L'	L+1.5max.					

Gas escaped end seal

◆ PART NUMBERING SYSTEM

**KZE 6.3 VB 1500 M J20**



Capacitance	Code
4.7µF	4R7
10µF	10
100µF	100
2200µF	2200

**◆STANDARD RATINGS**

Case size φD×L(mm)	V <sub>dc</sub> Case code	6.3				10				16			
		Capacitance (μF)	Impedance (Ω <sub>max</sub> /100kHz)		Rated ripple current (mA <sub>rms</sub> /105°C 100kHz)	Capacitance (μF)	Impedance (Ω <sub>max</sub> /100kHz)		Rated ripple current (mA <sub>rms</sub> /105°C 100kHz)	Capacitance (μF)	Impedance (Ω <sub>max</sub> /100kHz)		Rated ripple current (mA <sub>rms</sub> /105°C 100kHz)
			20°C	-10°C			20°C	-10°C			20°C	-10°C	
5X11	E11	150	0.30	1.0	250	100	0.30	1.0	250	56	0.30	1.0	250
6.3X11	F11	330	0.13	0.41	405	220	0.13	0.41	405	120	0.13	0.41	405
8X11.5	H11	560	0.072	0.22	760	470	0.072	0.22	760	330	0.072	0.22	760
8X15	H15	820	0.056	0.17	995	680	0.056	0.17	995	470	0.056	0.17	995
8X20	H20	1,200	0.041	0.13	1,250	1,000	0.041	0.13	1,250	680	0.041	0.13	1,250
10X12.5	J12	1,000	0.053	0.16	1,030	680	0.053	0.16	1,030	470	0.053	0.16	1,030
10X16	J16	1,200	0.038	0.12	1,430	1,000	0.038	0.12	1,430	680	0.038	0.12	1,430
10X20	J20	1,500	0.023	0.069	1,820	1,200	0.023	0.069	1,820	1,000	0.023	0.069	1,820
10X25	J25	2,200	0.022	0.066	2,150	1,500	0.022	0.066	2,150	1,200	0.022	0.066	2,150
12.5X20	K20	3,300	0.021	0.053	2,360	2,200	0.021	0.053	2,360	1,500	0.021	0.053	2,360
12.5X25	K25	3,900	0.018	0.045	2,770	3,300	0.018	0.045	2,770	2,200	0.018	0.045	2,770
12.5X30	K30	4,700	0.016	0.041	3,290	3,900	0.016	0.041	3,290	2,700	0.016	0.041	3,290
12.5X35	K35	5,600	0.015	0.039	3,400	4,700	0.015	0.039	3,400	3,300	0.015	0.039	3,400
16X20	L20	5,600	0.018	0.045	3,140	3,900	0.018	0.045	3,140	2,700	0.018	0.045	3,140
16X25	L25	6,800	0.016	0.043	3,460	5,600	0.016	0.043	3,460	3,900	0.016	0.043	3,460

Case size φD×L (mm)	V <sub>dc</sub> Case code	25				35				50			
		Capacitance (μF)	Impedance (Ω <sub>max</sub> /100kHz)		Rated ripple current (mA <sub>rms</sub> /105°C 100kHz)	Capacitance (μF)	Impedance (Ω <sub>max</sub> /100kHz)		Rated ripple current (mA <sub>rms</sub> /105°C 100kHz)	Capacitance (μF)	Impedance (Ω <sub>max</sub> /100kHz)		Rated ripple current (mA <sub>rms</sub> /105°C 100kHz)
			20°C	-10°C			20°C	-10°C			20°C	-10°C	
5X11	E11	47	0.30	1.0	250	33	0.30	1.0	250	22	0.34	1.18	238
6.3X11	F11	100	0.13	0.41	405	56	0.13	0.41	405	56	0.14	0.50	385
8X11.5	H11	220	0.072	0.22	760	150	0.072	0.22	760	100	0.074	0.22	724
8X15	H15	330	0.056	0.17	995	220	0.056	0.17	995	120	0.061	0.18	950
8X20	H20	470	0.041	0.13	1,250	270	0.041	0.13	1,250	180	0.046	0.14	1,190
10X12.5	J12	330	0.053	0.16	1,030	220	0.053	0.16	1,030	150	0.061	0.18	979
10X16	J16	470	0.038	0.12	1,430	330	0.038	0.12	1,430	220	0.042	0.12	1,370
10X20	J20	680	0.023	0.069	1,820	470	0.023	0.069	1,820	270	0.030	0.090	1,580
10X25	J25	820	0.022	0.066	2,150	560	0.022	0.066	2,150	330	0.028	0.085	1,870
12.5X20	K20	1,000	0.021	0.053	2,360	680	0.021	0.053	2,360	470	0.027	0.068	2,050
12.5X25	K25	1,500	0.018	0.045	2,770	1,000	0.018	0.045	2,770	560	0.023	0.059	2,410
12.5X30	K30	1,800	0.016	0.041	3,290	1,200	0.016	0.041	3,290	680	0.021	0.052	2,860
12.5X35	K35	2,200	0.015	0.039	3,400	1,500	0.015	0.039	3,400	820	0.019	0.051	2,960
16X20	L20	1,800	0.018	0.045	3,140	1,200	0.018	0.045	3,140	820	0.023	0.059	2,730
16X25	L25	2,700	0.016	0.043	3,460	1,800	0.016	0.043	3,460	1,000	0.021	0.056	3,010

**◆RATED RIPPLE CURRENT MULTIPLIERS**

## ●Frequency Multipliers

Capacitance(μF)	Frequency (Hz)			
	120	1k	10k	100k
22 to 180	0.40	0.75	0.90	1.00
220 to 560	0.50	0.85	0.94	1.00
680 to 1,800	0.60	0.87	0.95	1.00
2,200 to 3,900	0.75	0.90	0.95	1.00
4,700 to	0.85	0.95	0.98	1.00