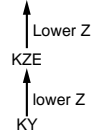


New!

# KZH Series

- Ultra Low impedance for Personal Computer and Storage Equipment
- Endurance with ripple current: 105°C 5000 to 6000 hours
- Non solvent-proof type

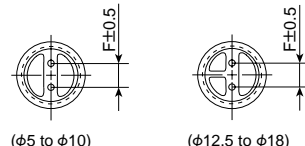
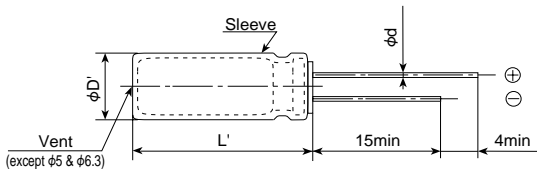
KZH



## ◆ SPECIFICATIONS

Items	Characteristics												
<b>Category</b>													
<b>Temperature Range</b>	-40 to +105°C												
<b>Rated Voltage Range</b>	6.3 to 35V <sub>dc</sub>												
<b>Capacitance Tolerance</b>	±20% (M) (at 20°C, 120Hz)												
<b>Leakage Current</b>	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)												
<b>Dissipation Factor (tanδ)</b>	<table border="1"> <tr> <td>Rated voltage (V<sub>dc</sub>)</td> <td>6.3V</td> <td>10V</td> <td>16V</td> <td>25V</td> <td>35V</td> </tr> <tr> <td>tanδ (Max.)</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> </tr> </table> <p>When nominal capacitance exceeds 1000µF, add 0.02 to the value above for each 1000µF increase. (at 20°C, 120Hz)</p>	Rated voltage (V <sub>dc</sub> )	6.3V	10V	16V	25V	35V	tanδ (Max.)	0.22	0.19	0.16	0.14	0.12
Rated voltage (V <sub>dc</sub> )	6.3V	10V	16V	25V	35V								
tanδ (Max.)	0.22	0.19	0.16	0.14	0.12								
<b>Low Temperature Characteristics (Max. Impedance Ratio)</b>	<table border="1"> <tr> <td>Z (-25°C) / Z (+20°C)</td> <td>2max.</td> </tr> <tr> <td>Z (-40°C) / Z (+20°C)</td> <td>3max.</td> </tr> </table> <p>(at 120Hz)</p>	Z (-25°C) / Z (+20°C)	2max.	Z (-40°C) / Z (+20°C)	3max.								
Z (-25°C) / Z (+20°C)	2max.												
Z (-40°C) / Z (+20°C)	3max.												
<b>Endurance</b>	<p>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.</p> <table border="1"> <tr> <td>Time</td> <td>φ5 &amp; φ6.3 : 5000hours</td> <td>φ8 to φ16 : 6000hours</td> </tr> <tr> <td>Capacitance change</td> <td colspan="2">≤±25% of the initial value (6.3, 10V : ≤±30%)</td> </tr> <tr> <td>D.F. (tanδ)</td> <td colspan="2">≤200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td colspan="2">≤The initial specified value</td> </tr> </table>	Time	φ5 & φ6.3 : 5000hours	φ8 to φ16 : 6000hours	Capacitance change	≤±25% of the initial value (6.3, 10V : ≤±30%)		D.F. (tanδ)	≤200% of the initial specified value		Leakage current	≤The initial specified value	
Time	φ5 & φ6.3 : 5000hours	φ8 to φ16 : 6000hours											
Capacitance change	≤±25% of the initial value (6.3, 10V : ≤±30%)												
D.F. (tanδ)	≤200% of the initial specified value												
Leakage current	≤The initial specified value												
<b>Shelf Life</b>	<p>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.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>≤±25% of the initial value (6.3, 10V : ≤±30%)</td> </tr> <tr> <td>D.F. (tanδ)</td> <td>≤200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤The initial specified value</td> </tr> </table>	Capacitance change	≤±25% of the initial value (6.3, 10V : ≤±30%)	D.F. (tanδ)	≤200% of the initial specified value	Leakage current	≤The initial specified value						
Capacitance change	≤±25% of the initial value (6.3, 10V : ≤±30%)												
D.F. (tanδ)	≤200% of the initial specified value												
Leakage current	≤The initial specified value												

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

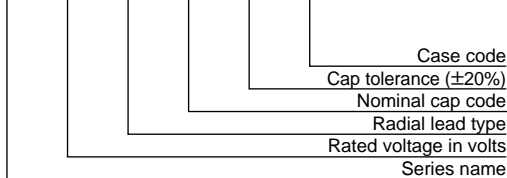


φD	5	6.3	8	10	12.5	16
φd	0.5	0.5	0.6	0.6	0.6	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5
φD'	φD+0.5max.					
L'	L+1.5max.					

Gas escaped end seal

## ◆ PART NUMBERING SYSTEM

KZH 6.3 VB 1500 M H20



Capacitance	Code
47µF	47
100µF	100
2200µF	2200

## ◆ RATED RIPPLE CURRENT MULTIPLIERS

- Frequency Multipliers

Capacitance(µF)	Frequency (Hz)			
	120	1k	10k	100k
0.47 to 150	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 8,200	0.85	0.95	0.98	1.00

New!

KZH Series

◆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	220	0.24	0.80	330	150	0.24	0.80	330	100	0.24	0.80	330
6.3X11	F11	470	0.11	0.35	500	330	0.11	0.35	500	220	0.11	0.35	500
8X11.5	H11	820	0.062	0.19	900	680	0.062	0.19	900	470	0.062	0.19	900
8X15	H15	1,200	0.048	0.15	1,210	1,000	0.048	0.15	1,210	680	0.048	0.15	1,210
8X20	H20	1,500	0.033	0.11	1,410	1,500	0.033	0.11	1,410	1,000	0.033	0.11	1,410
10X12.5	J12	1,200	0.045	0.14	1,240	1,000	0.045	0.14	1,240	680	0.045	0.14	1,240
10X16	J16	1,800	0.032	0.10	1,650	1,500	0.032	0.10	1,650	1,000	0.032	0.10	1,650
10X20	J20	2,200	0.020	0.060	1,960	1,800	0.020	0.060	1,960	1,500	0.020	0.060	1,960
10X25	J25	2,700	0.018	0.054	2,250	2,200	0.018	0.054	2,250	1,800	0.018	0.054	2,250
12.5X20	K20	3,900	0.017	0.043	2,480	3,300	0.017	0.043	2,480	2,200	0.017	0.043	2,480
12.5X25	K25	4,700	0.015	0.038	2,900	3,900	0.015	0.038	2,900	2,700	0.015	0.038	2,900
12.5X30	K30	5,600	0.013	0.033	3,450	4,700	0.013	0.033	3,450	3,300	0.013	0.033	3,450
12.5X35	K35	6,800	0.012	0.031	3,570	5,600	0.012	0.031	3,570	3,900	0.012	0.031	3,570
16X20	L20	6,800	0.015	0.038	3,250	4,700	0.015	0.038	3,250	3,300	0.015	0.038	3,250
16X25	L25	8,200	0.013	0.035	3,630	6,800	0.013	0.035	3,630	4,700	0.013	0.035	3,630

Case size φD×L(mm)	V <sub>dc</sub> Case code	25				35			
		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	
5X11	E11	68	0.24	0.80	330	47	0.24	0.80	330
6.3X11	F11	150	0.11	0.35	500	100	0.11	0.35	500
8X11.5	H11	330	0.062	0.19	900	220	0.062	0.19	900
8X15	H15	390	0.048	0.15	1,210	270	0.048	0.15	1,210
8X20	H20	560	0.033	0.11	1,410	390	0.033	0.11	1,410
10X12.5	J12	470	0.045	0.14	1,240	330	0.045	0.14	1,240
10X16	J16	680	0.032	0.10	1,650	470	0.032	0.10	1,650
10X20	J20	820	0.020	0.060	1,960	560	0.020	0.060	1,960
10X25	J25	1,000	0.018	0.054	2,250	680	0.018	0.054	2,250
12.5X20	K20	1,500	0.017	0.043	2,480	1,000	0.017	0.043	2,480
12.5X25	K25	1,800	0.015	0.038	2,900	1,200	0.015	0.038	2,900
12.5X30	K30	2,200	0.013	0.033	3,450	1,500	0.013	0.033	3,450
12.5X35	K35	2,700	0.012	0.031	3,570	1,800	0.012	0.031	3,570
16X20	L20	2,200	0.015	0.038	3,250	1,500	0.015	0.038	3,250
16X25	L25	3,300	0.013	0.035	3,630	2,200	0.013	0.035	3,630