



VZT Series

Features

- 5 ϕ ~ 10 ϕ , 105°C, 2,000 ~ 5000 hours assured
- Low impedance 30 ~ 50% less than VZS series
- Designed for surface mounting on high density PC board
- RoHS Compliance

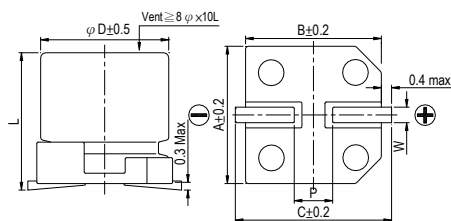


Marking color: Black

Specifications

Items	Performance																													
Category Temperature Range	-55℃ ~ +105℃																													
Capacitance Tolerance	±20% (at 120Hz, 20℃)																													
Leakage Current (at 20℃)	I = 0.01CV or 3 (μA) whichever is greater (after 2 minutes) Where, C = rated capacitance in μF V = rated DC working voltage in V																													
Tanδ (at 120Hz, 20℃)	<table><tr><td>Rated Voltage</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td></tr><tr><td>Tanδ (max)</td><td>0.26</td><td>0.19</td><td>0.16</td><td>0.14</td><td>0.12</td><td>0.10</td></tr></table>							Rated Voltage	6.3	10	16	25	35	50	Tanδ (max)	0.26	0.19	0.16	0.14	0.12	0.10									
Rated Voltage	6.3	10	16	25	35	50																								
Tanδ (max)	0.26	0.19	0.16	0.14	0.12	0.10																								
Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below. <table><tr><td colspan="2">Rated Voltage</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td></tr><tr><td rowspan="2">Impedance Ratio</td><td>Z(-25℃)/Z(+20℃)</td><td>4</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td></tr><tr><td>Z(-55℃)/Z(+20℃)</td><td>8</td><td>5</td><td>4</td><td>3</td><td>3</td><td>3</td></tr></table>							Rated Voltage		6.3	10	16	25	35	50	Impedance Ratio	Z(-25℃)/Z(+20℃)	4	3	2	2	2	2	Z(-55℃)/Z(+20℃)	8	5	4	3	3	3
Rated Voltage		6.3	10	16	25	35	50																							
Impedance Ratio	Z(-25℃)/Z(+20℃)	4	3	2	2	2	2																							
	Z(-55℃)/Z(+20℃)	8	5	4	3	3	3																							
Endurance	<table><tr><td>Test Time</td><td>2,000 Hrs for ϕ D ≤ 6.3mm ; 5,000 Hrs for ϕ D ≥ 8mm</td></tr><tr><td>Capacitance Change</td><td>Within ±30% of initial value</td></tr><tr><td>Tanδ</td><td>Less than 200% of specified value</td></tr><tr><td>Leakage Current</td><td>Within specified value</td></tr></table> * The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied for 2,000 ~ 5,000 hours at 105℃.							Test Time	2,000 Hrs for ϕ D ≤ 6.3mm ; 5,000 Hrs for ϕ D ≥ 8mm	Capacitance Change	Within ±30% of initial value	Tanδ	Less than 200% of specified value	Leakage Current	Within specified value															
Test Time	2,000 Hrs for ϕ D ≤ 6.3mm ; 5,000 Hrs for ϕ D ≥ 8mm																													
Capacitance Change	Within ±30% of initial value																													
Tanδ	Less than 200% of specified value																													
Leakage Current	Within specified value																													
Shelf Life Test	Test time: 1,000 hours; other items are the same as those for the Endurance.																													
Ripple Current & Frequency Multipliers	<table><tr><td>Freq.(Hz) Cap. (μF)</td><td>120</td><td>1K</td><td>10k</td><td>10k up</td></tr><tr><td>Under 470</td><td>0.65</td><td>0.85</td><td>0.95</td><td>1.00</td></tr><tr><td>560 < C < 2200</td><td>0.70</td><td>0.90</td><td>0.95</td><td>1.00</td></tr></table>							Freq.(Hz) Cap. (μF)	120	1K	10k	10k up	Under 470	0.65	0.85	0.95	1.00	560 < C < 2200	0.70	0.90	0.95	1.00								
Freq.(Hz) Cap. (μF)	120	1K	10k	10k up																										
Under 470	0.65	0.85	0.95	1.00																										
560 < C < 2200	0.70	0.90	0.95	1.00																										

Diagram of Dimensions



Lead Spacing and Diameter

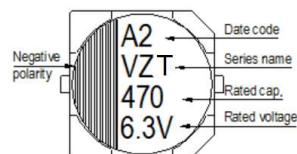
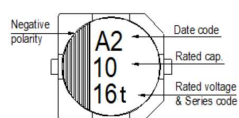
Unit: mm

φD	L	A	B	C	W	P ± 0.2
5	5.8 ± 0.3	5.3	5.3	5.9	0.5 ~ 0.8	1.5
6.3	5.8 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
6.3	7.7 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
8	10 ± 0.5	8.4	8.4	9.0	0.7 ~ 1.1	3.1
10	10 ± 0.5	10.4	10.4	11	0.7 ~ 1.3	4.7

Marking

φD ≤ 6.3mm

φD = 8 ~ 10 mm





Dimension: $\phi D \times L$ (mm)

Ripple Current: mA/rms at 100k Hz, 105°C

Impedance: Ω / at 100k Hz, 20°C

Dimension & Permissible Ripple Current

μF	V. DC Contents	6.3V (0J)			10V (1A)			16V (1C)			25V (1E)			35V (1V)			50V (1H)		
		$\phi D \times L$	Imp.	mA	$\phi D \times L$	Imp.	mA	$\phi D \times L$	Imp.	mA	$\phi D \times L$	Imp.	mA	$\phi D \times L$	Imp.	mA	$\phi D \times L$	Imp.	mA
10																	4×5.8	2.30	85
22	220										4×5.8	0.85	160	4×5.8	0.85	160	5×5.8	0.88	165
33	330										4×5.8	0.85	160	5×5.8	0.36	240			
47	470							4×5.8	0.85	160	5×5.8	0.36	240	5×5.8	0.36	240	6.3×5.8	0.68	195
68	680				4×5.8	0.85	160	5×5.8	0.36	240	5×5.8	0.36	240	6.3×5.8	0.26	300			
100	101	4×5.8	0.85	160				5×5.8	0.36	240	6.3×5.8	0.26	300	6.3×5.8	0.26	300	6.3×7.7	0.34	350
150	151				5×5.8	0.36	240	6.3×5.8	0.26	300	6.3×7.7	0.16	600	6.3×7.7	0.16	600			
220	221	5×5.8	0.36	240	6.3×5.8	0.26	300	6.3×5.8	0.26	300	6.3×7.7	0.16	600				8×10	0.18	670
330	331	6.3×5.8	0.26	300	6.3×7.7	0.16	600	6.3×7.7	0.16	600				8×10	0.08	850	10×10	0.12	900
470	471	6.3×7.7	0.16	600	6.3×7.7	0.16	600				8×10	0.08	850						
560	561													10×10	0.06	1,190			
680	681	6.3×7.7	0.16	600				8×10	0.08	850									
820	821										10×10	0.06	1,190						
1,000	102				8×10	0.08	850	10×10	0.06	1,190									
1,500	152	8×10	0.08	850	10×10	0.06	1,190												
2,200	222	10×10	0.06	1,190															

Part Numbering System

VZS series	1500 μF	$\pm 20\%$	6.3V	Carrier Tape		8 $\phi \times 10L$	Pb-free and PET coating case
VZT	152	M	0J	TR	-	0810	
Series name	Capacitance	Capacitance Tolerance	Rated Voltage	Package Type	Terminal Type	Case size	Lead Wire and Coating Type

Note: For more details, please refer to "Part Numbering System (SMD Type)" on page 13.