



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

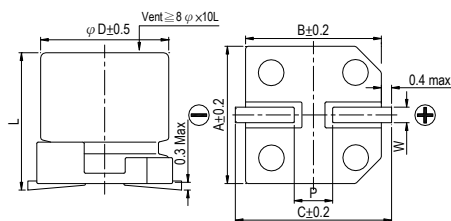


Marking color: Black

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									
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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
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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															
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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								
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Diagram of Dimensions



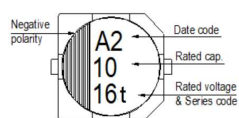
Lead Spacing and Diameter

Unit: mm

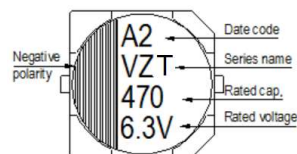
ϕD	L	A	B	C	W	P ± 0.2
5	5.8 ± 0.3	5.3	5.3	5.9	0.5 ~ 0.8	1.5
6.3	5.8 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
6.3	7.7 ± 0.3	6.6	6.6	7.2	0.5 ~ 0.8	2.0
8	10 ± 0.5	8.4	8.4	9.0	0.7 ~ 1.1	3.1
10	10 ± 0.5	10.4	10.4	11	0.7 ~ 1.3	4.7

Marking

$\phi D \leq 6.3\text{mm}$



$\phi D = 8 \sim 10\text{mm}$





Dimension: $\phi D \times L(\text{mm})$

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

Impedance: $\Omega/$ 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 $\phi \times 10\text{L}$	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.