



VEZ Series

Features

- $4\phi \sim 6.3\phi$, 105°C, 1,000 hours assured
- Low ESR capacitors
- Designed for surface mounting on high density PC board
- RoHS compliant
- AEC-Q200 compliant

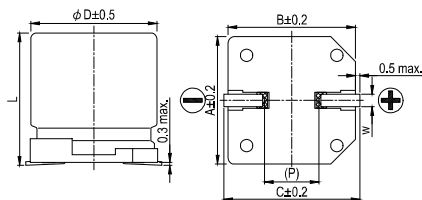


Marking color: Black

Specifications

Items	Performance																													
Category Temperature Range	-55℃ ~ +105℃																													
Capacitance Tolerance	± 20% (at 120 Hz, 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 120 Hz, 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>0.28</td><td>0.24</td><td>0.20</td><td>0.16</td><td>0.14</td><td>0.12</td></tr></table>							Rated Voltage	6.3	10	16	25	35	50	Tanδ (max.)	0.28	0.24	0.20	0.16	0.14	0.12									
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Low Temperature Characteristics (at 120 Hz)	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>10</td><td>7</td><td>5</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℃)	10	7	5	3	3	3
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Endurance	<table><tr><td>Test Time</td><td>1,000 Hrs</td></tr><tr><td>Capacitance Change</td><td>Within ± 25% 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 1,000 hours at 105℃.							Test Time	1,000 Hrs	Capacitance Change	Within ± 25% 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 and Frequency Multipliers	<table><tr><td>Frequency(Hz)</td><td>50, 60</td><td>120</td><td>1k</td><td>10k up</td></tr><tr><td>Multiplier</td><td>0.64</td><td>0.8</td><td>0.93</td><td>1.0</td></tr></table>							Frequency(Hz)	50, 60	120	1k	10k up	Multiplier	0.64	0.8	0.93	1.0													
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Diagram of Dimensions



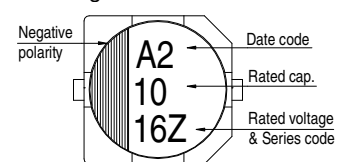
Lead Spacing and Diameter

Unit: mm

φD	L	A	B	C	W	P
4	5.3 ± 0.2	4.3	4.3	5.1	0.5 ~ 0.8	1.0
5	5.3 ± 0.2	5.3	5.3	5.9	0.5 ~ 0.8	1.5
6.3	5.3 ± 0.2	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

The diagram is marking " () " for reference dimension.

Marking



Dimension: φD × L(mm)

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

Impedance: Ω/ at 100k Hz, 20°C

Dimension and Permissible Ripple Current

Rated Volt. (V _{DC})		6.3V (0J)			10V (1A)			16V (1C)			25V (1E)			35V (1V)			50V (1H)		
Cap. (μF)	Contents	φ D×L	Imp.	mA	φ D×L	Imp.	mA	φ D×L	Imp.	mA	φ D×L	Imp.	mA	φ D×L	Imp.	mA	φ D×L	Imp.	mA
1.0	010																4×5.3	5.0	30
2.2	2R2																4×5.3	5.0	30
3.3	3R3																4×5.3	5.0	30
4.7	4R7										4×5.3	3.20	65	4×5.3	3.20	65	5×5.3	3.0	50
10	100				4×5.3	3.20	65	4×5.3	3.20	65	5×5.3	1.50	110	5×5.3	1.50	110	6.3×5.3	2.0	70
22	220	4×5.3	3.20	65	5×5.3	1.50	110	5×5.3	1.50	110	6.3×5.3	0.85	170	6.3×5.3	0.85	170	6.3×5.3	2.0	70
33	330	5×5.3	1.50	110	5×5.3	1.50	110	6.3×5.3	0.85	170	6.3×5.3	0.85	170	6.3×5.3	0.85	170	6.3×7.7	1.0	170
47	470	5×5.3	1.50	110	6.3×5.3	0.85	170	6.3×5.3	0.85	170	6.3×5.3	0.85	170	6.3×7.7	0.50	255			
100	101	6.3×5.3	0.85	170	6.3×5.3	0.85	170	6.3×5.3	0.85	170	6.3×7.7	0.50	255						
150	151	6.3×7.7	0.50	255	6.3×7.7	0.50	255	6.3×7.7	0.50	255									
220	221	6.3×7.7	0.50	255	6.3×7.7	0.50	255	6.3×7.7	0.50	255									

Part Numbering System

VEZ Series	10μF	± 20%	16V	Carrier Tape		4 ϕ ×5.3L	General Purpose
<u>VEZ</u>	<u>100</u>	<u>M</u>	<u>1C</u>	<u>TR</u>	<u>-</u>	<u>0405</u>	
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Package Type	Terminal Type	Case Size	Application

Note: For more details, please refer to "Part Numbering System - SMD Type" on page 106.