

CE32 Type

Features:

- 4 ~ 16φ 105°C, 2,000 ~ 5,000 hours assured, long life assured
- Chip type large capacitance capacitors
- Ultra low impedance capacitors
- Designed for surface mounting on high density PC board.
- RoHS Compliance



SPECIFICATIONS

Items	Performance																																																					
Operating Temperature Range	6.3 ~ 63V -55°C ~ +105°C					80 ~ 100V -40°C ~ +105°C																																																
Capacitance Tolerance	±20% (at 120Hz, 20°C)																																																					
Leakage Current (at 20°C)	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.																																																					
Dissipation Factor (Tan δ at 120Hz, 20°C)	<table border="1"> <tr> <td>Rated Voltage</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>80</td><td>100</td></tr> <tr> <td>Tanδ(max)</td><td>0.30</td><td>0.26</td><td>0.22</td><td>0.16</td><td>0.13</td><td>0.10</td><td>0.08</td><td>0.08</td><td>0.07</td></tr> </table>										Rated Voltage	6.3	10	16	25	35	50	63	80	100	Tanδ(max)	0.30	0.26	0.22	0.16	0.13	0.10	0.08	0.08	0.07																								
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Low Temperature Characteristics (at 120Hz)	<p>Impedance ratio shall not exceed the values given in the table below.</p> <table border="1"> <tr> <td>Rated Voltage</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>80</td><td>100</td></tr> <tr> <td>Impedance Ratio</td><td>Z(-25°C)/Z(+20°C)</td><td>4</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td></tr> <tr> <td></td><td>Z(-40°C)/Z(+20°C)</td><td>8</td><td>5</td><td>4</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr> </table>										Rated Voltage	6.3	10	16	25	35	50	63	80	100	Impedance Ratio	Z(-25°C)/Z(+20°C)	4	3	2	2	2	2	2	2		Z(-40°C)/Z(+20°C)	8	5	4	3	3	3	3	3														
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Load Life Test	<table border="1"> <tr> <td>Test Time</td><td colspan="3">2,000 Hrs for 4 ~ 6.3φ</td><td colspan="3">3,000 Hrs for 8 ~ -10φ</td><td colspan="4">5,000 Hrs for 12.5 ~ -16φ</td></tr> <tr> <td>Capacitance Change</td><td colspan="3">Within ±25% of initial value</td><td colspan="3">Within ±30% of initial value</td><td colspan="4">Within ±30% of initial value</td></tr> <tr> <td>Dissipation Factor</td><td colspan="3">Less than 200% of specified value</td><td colspan="3">Less than 300% of specified value</td><td colspan="4">Less than 300% of specified value</td></tr> <tr> <td>Leakage Current</td><td colspan="3">Within specified value</td><td colspan="3" rowspan="3">Within specified value</td><td colspan="4" rowspan="3">Within specified value</td></tr> </table> <p>* The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 2,000 ~ 5,000 hrs at 105°C.</p>										Test Time	2,000 Hrs for 4 ~ 6.3φ			3,000 Hrs for 8 ~ -10φ			5,000 Hrs for 12.5 ~ -16φ				Capacitance Change	Within ±25% of initial value			Within ±30% of initial value			Within ±30% of initial value				Dissipation Factor	Less than 200% of specified value			Less than 300% of specified value			Less than 300% of specified value				Leakage Current	Within specified value			Within specified value			Within specified value			
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Leakage Current	Within specified value			Within specified value			Within specified value																																															
Shelf Life Test	Test time: 1,000 hrs; other items are the same as those for the load life test.																																																					
Ripple Current & Frequency Multipliers	<table border="1"> <tr> <td>Freq.(Hz) V.DC(V)</td><td>50, 60</td><td>120</td><td>1K</td><td>1K up</td><td colspan="5"></td></tr> <tr> <td>6.3 ~ 100</td><td>0.64</td><td>0.8</td><td>0.93</td><td>1.0</td><td colspan="5" rowspan="2"></td></tr> </table>										Freq.(Hz) V.DC(V)	50, 60	120	1K	1K up						6.3 ~ 100	0.64	0.8	0.93	1.0																													
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Other Standards	JIS C 5101-1, -18																																																					

DIAGRAM OF DIMENSIONS

Fig. 1

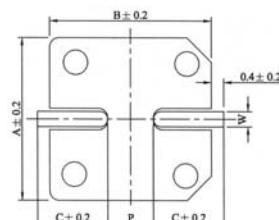
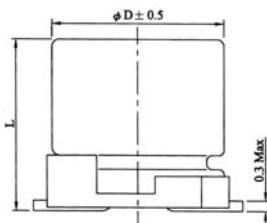
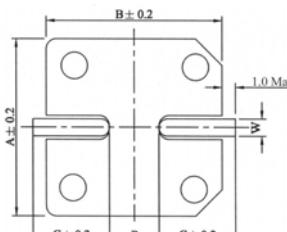
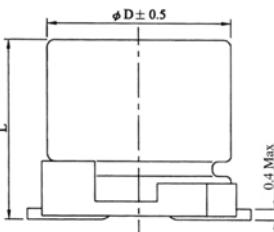


Fig. 2



LEAD SPACING AND DIAMETER

Unit: mm

φ D	L	A	B	C	W	P±0.2	Fig. No.
4	5.7±0.3	4.3	4.3	2.0	0.5 to 0.8	1.0	1
5	5.7±0.3	5.3	5.3	2.3	0.5 to 0.8	1.5	1
6.3	5.7±0.3	6.3	6.3	2.7	0.5 to 0.8	2.0	1
6.3	7.7±0.3	6.6	6.6	2.7	0.5 to 0.8	2.0	1
8	10±0.5	8.4	8.4	3.0	0.7 to 1.1	3.1	1
10	10±0.5	10.4	10.4	3.3	0.7 to 1.1	4.7	1
12.5	13.5±0.5	12.8	12.8	4.9	1.1 to 1.4	4.2	2
12.5	16±0.5	12.8	12.8	4.9	1.1 to 1.4	4.2	2
16	16.5±0.5	16.3	16.3	5.8	1.8 to 2.2	6.0	2



SMD Aluminum Electrolytic Capacitors

VZH

CE32 Type

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

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

Impedance: Ω at 100K Hz, 20°C

DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC μF	Contents	6.3V (0J)			10V (1A)			16V (1C)			25V (1E)			35V (1V)			
		$\varphi D \times L$	Imp	mA	$\varphi D \times L$	Imp	mA	$\varphi D \times L$	Imp	mA	$\varphi D \times L$	Imp	mA	$\varphi D \times L$	Imp	mA	
4.7	4R7														4×5.7	1.35	80
10	100							4×5.7	1.35	80	4×5.7	1.35	80	5×5.7	0.80	150	
22	220	4×5.7	1.35	80	4×5.7	1.35	80	5×5.7	0.80	150	5×5.7	0.80	150	6.3×5.7	0.44	230	
33	330	4×5.7	1.35	80	5×5.7	0.80	150	6.3×5.7	0.44	230	6.3×5.7	0.44	230	6.3×5.7	0.44	230	
47	470	5×5.7	0.80	150	6.3×5.7	0.44	230	6.3×5.7	0.44	230	6.3×5.7	0.44	230	6.3×5.7	0.44	230	
100	101	6.3×5.7	0.44	230	6.3×5.7	0.44	230	6.3×5.7	0.44	230	6.3×7.7	0.36	280	8×10	0.17	450	
150	151	6.3×5.7	0.44	230	6.3×5.7	0.44	230	6.3×7.7	0.36	280	8×10	0.17	450	8×10	0.17	450	
220	221	6.3×7.7	0.36	280	6.3×7.7	0.36	280	6.3×7.7	0.36	280	8×10	0.17	450	10×10	0.09	670	
330	331	8×10	0.17	450	8×10	0.17	450	8×10	0.17	450	8×10	0.17	450	12.5×13.5	0.070	820	
470	471	8×10	0.17	450	8×10	0.17	450	8×10	0.17	450	10×10	0.09	670	12.5×16	0.060	950	
680	681	8×10	0.17	450	10×10	0.09	670	10×10	0.09	670	12.5×13.5	0.070	820	12.5×16	0.060	950	
1000	102	8×10	0.17	450	10×10	0.09	670	12.5×13.5	0.070	820	12.5×16	0.060	950	16×16.5	0.054	1,260	
1500	152	10×10	0.09	670	12.5×13.5	0.070	820	12.5×16	0.060	950	16×16.5	0.054	1,260				
2200	222	12.5×13.5	0.070	820	12.5×16	0.060	950	16×16.5	0.054	1,260	16×16.5	0.054	1,260				
3300	332	12.5×16	0.060	950	16×16.5	0.054	1,260	16×16.5	0.054	1,260							
4700	472	16×16.5	0.054	1,260	16×16.5	0.054	1,260										

V.DC μF	Contents	50V (1H)			63V (1J)			80V (1K)			100V (2A)		
		$\varphi D \times L$	Imp	mA	$\varphi D \times L$	Imp	mA	$\varphi D \times L$	Imp	mA	$\varphi D \times L$	Imp	mA
1	010	4×5.7	2.9	60									
2.2	2R2	4×5.7	2.9	60									
3.3	3R3	4×5.7	2.9	60									
4.7	4R7	5×5.7	1.52	85	5×5.7	1.52	85						
10	100	6.3×5.7	0.88	165	6.3×5.7	0.88	165						
22	220	6.3×5.7	0.88	165	6.3×7.7	0.68	185						
33	330	6.3×7.7	0.68	185	8×10	0.34	369						
47	470	6.3×7.7	0.68	185	8×10	0.34	369			10×10	0.7	200	
68	680	8×10	0.34	369	10×10	0.18	553	10×10	0.7	200	12.5×13.5	0.32	450
100	101	8×10	0.34	369	10×10	0.18	553	12.5×13.5	0.32	450	12.5×16	0.26	550
150	151	10×10	0.18	553	12.5×13.5	0.12	650	12.5×13.5	0.32	450	16×16.5	0.17	650
220	221	10×10	0.18	553	12.5×13.5	0.12	650	12.5×16	0.26	550			
330	331	12.5×13.5	0.12	650	16×16.5	0.082	900	16×16.5	0.17	650			
470	471	16×16.5	0.082	900	16×16.5	0.082	900						
680	681	16×16.5	0.082	900									