



STR Chip, Low Impedance & ESR, 105°C

Features

- Load Life : 105°C 1000~2000 hours.
- For high density mounting.
- Low impedance at 100kHz.

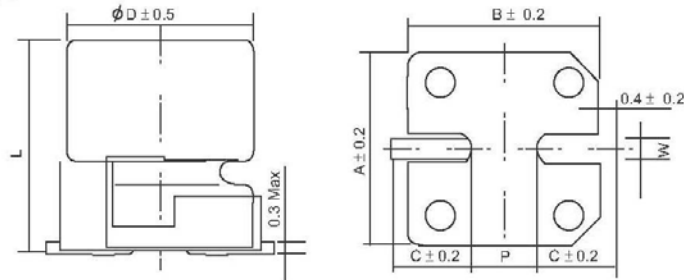


Specifications

Item	Performance																							
Operating Temperature Range	-40°C ~ +105°C																							
Rated Working Voltage	6.3~50VDC																							
Capacitance Tolerance	±20% (at 120Hz, 20°C)																							
Leakage Current (at 20°C)	$I \leq 0.01 CV$ or $3 (\mu A)$ whichever is greater (after 2 minutes) Where, C=rated capacitance in μF . V=rated DC working voltage in V.																							
Surge Voltage (at 20°C)	<table border="1"> <tr> <td>W.V.</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>S.V.</td> <td>8</td> <td>13</td> <td>20</td> <td>32</td> <td>44</td> <td>63</td> </tr> </table>	W.V.	6.3	10	16	25	35	50	S.V.	8	13	20	32	44	63									
W.V.	6.3	10	16	25	35	50																		
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Dissipation Factor (Tan δ at 120Hz, 20°C)	<table border="1"> <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">Tan δ (max)</td> <td>$\phi 4 \sim \phi 6.3$</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.12</td> </tr> <tr> <td>$\phi 8 \sim \phi 10$</td> <td>0.28</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.14</td> </tr> </table> <p>Add 0.02 per 1000 μF for more than 1000 μF</p>	Rated Voltage		6.3	10	16	25	35	50	Tan δ (max)	$\phi 4 \sim \phi 6.3$	0.24	0.20	0.16	0.14	0.12	0.12	$\phi 8 \sim \phi 10$	0.28	0.24	0.20	0.16	0.14	0.14
Rated Voltage		6.3	10	16	25	35	50																	
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Low Temperature Stability	<p>Impedance ratio at 120Hz</p> <table border="1"> <tr> <td colspan="2">Rated Voltage(v)</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°C)/Z(+20°C)</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z (-40°C)/Z(+20°C)</td> <td>5</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	Rated Voltage(v)		6.3	10	16	25	35	50	Impedance Ratio	Z (-25°C)/Z(+20°C)	3	2	2	2	2	2	Z (-40°C)/Z(+20°C)	5	4	4	3	3	3
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Impedance Ratio	Z (-25°C)/Z(+20°C)	3	2	2	2	2	2																	
	Z (-40°C)/Z(+20°C)	5	4	4	3	3	3																	
Load Life Test	<p>* After hours ($\phi D \leq 6.3mm$ 1000 hours, $\phi D \leq 8mm$ 2000 hours) application of WV at +105°C the capacitor shall meet the following limits.</p> <table border="1"> <tr> <td>Capacitance Change</td> <td>$\leq \pm 25\%$ of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Less than 200% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>With specified value</td> </tr> </table>	Capacitance Change	$\leq \pm 25\%$ of initial value	Dissipation Factor	Less than 200% of specified value	Leakage Current	With specified value																	
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Leakage Current	With specified value																							
Shelf Life Test	Test time: 1000 hrs; other items are the same as those for the load life test.																							
Standards	Satisfies Characteristic W of JIS C5141																							

Diagram of Dimensions: (Unit: mm)

Fig 1



ϕD	L	A	B	C	W	P	Fig No.
4	5.6 ± 0.3	4.3	4.3	2.0	0.5~0.8	1.0	1
5	5.6 ± 0.3	5.3	5.3	2.3	0.5~0.8	1.5	1
6.3	5.6 ± 0.3	6.6	6.6	2.7	0.5~0.8	2.0	1
6.3	7.7 ± 0.3	6.6	6.6	2.7	0.5~0.8	2.0	1
8	10.2 ± 0.3	8.3	8.3	3.4	0.7~1.1	3.1	1
10	10.2 ± 0.3	10.3	10.3	3.5	0.7~1.1	4.6	1



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Multiplier For Ripple Current VS, Frequency

V.DC(V) \ Freq. (Hz)	50(60)	120	1K	10K UP	100K
6.3~50	0.55	0.65	0.85	0.90	1.00

Case Size

W.V.	Cap (μ F)	Size (mm) ϕ DxL	Imp. (Ω) 100KHz, 20°C	R.C. (mA,rms) (max) 100KHz, 105°C
6.3	22	4x5.6	1.80	80
	33	5x5.6	0.76	150
	47	5x5.6	0.76	150
	56	5x5.6	0.76	150
	68	6.3x5.6	0.44	230
	100	6.3x5.6	0.44	230
	150	6.3x5.6	0.44	230
	220	6.3x5.6	0.44	230
	330	6.3x7.7	0.34	280
	470	8x10.2	0.17	450
	680	8x10.2	0.17	450
	1000	8x10.2	0.17	450
1500	10x10.2	0.09	670	
10	22	4x5.6	1.80	80
	27	5x5.6	0.76	150
	33	5x5.6	0.76	150
	47	6.3x5.6	0.44	230
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1000	10x10.2	0.09	670	
16	10	4x5.6	1.80	80
	15	4x5.6	1.80	80
	22	5x5.6	0.76	150
	27	5x5.6	0.76	150
	33	6.3x5.6	0.44	230
	47	6.3x5.6	0.44	230
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W.V.	Cap (μF)	Size (mm) φ DxL	Imp. (Ω) 100KHz, 20°C	R.C. (mA,rms) (max) 100KHz, 105°C
25	10	4x5.6	1.80	80
	15	5x5.6	0.76	150
	22	5x5.6	0.76	150
	27	6.3x5.6	0.44	230
	33	6.3x5.6	0.44	230
	47	6.3x5.6	0.44	230
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	330	8x10.2	0.17	450
35	470	10x10.2	0.09	670
	4.7	4x5.6	1.80	80
	6.8	5x5.6	1.20	120
	10	5x5.6	0.76	150
	15	5x5.6	0.76	150
	22	5x5.6	0.76	150
	27	6.3x5.6	0.44	230
	33	6.3x5.6	0.44	230
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	100	8x10.2	0.17	450
50	150	8x10.2	0.17	450
	220	8x10.2	0.17	450
	330	10x10.2	0.09	670
	1.0	4x5.6	5.00	30
	2.2	4x5.6	5.00	30
	3.3	4x5.6	5.00	30
	4.7	5x5.6	1.52	85
	6.8	5x5.6	1.20	120
	10	6.3x5.6	0.88	165
	15	6.3x5.6	0.88	165
	22	6.3x5.6	0.88	165
	27	6.3x7.7	0.68	185
33	6.3x7.7	0.68	185	
47	6.3x7.7	0.68	185	
56	8x10.2	0.34	300	
68	8x10.2	0.34	300	
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