



SA Series

Features

- 105°C, 1,000 hours assured, 7mm height with low leakage current
- Use in very compact high temperature industrial equipment
- RoHS Compliance

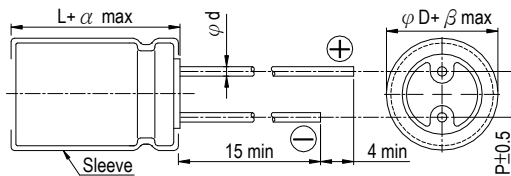


Sleeve & Marking Color: Purple & Black

Specifications

Items	Performance																													
Category Temperature Range	-40°C ~ +105°C																													
Capacitance Tolerance	±20% (at 120Hz, 20°C)																													
Leakage Current (at 20°C)	I = 0.002CV or 0.4 (µA) whichever is greater (after 2 minutes) Where, C = rated capacitance in µF V = rated DC working voltage in V																													
Tanδ (at 120Hz, 20°C)	<table border="1"> <tr> <th>Rated Voltage</th> <td>4</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> </tr> <tr> <th>Tanδ (max)</th> <td>0.35</td> <td>0.24</td> <td>0.21</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.10</td> </tr> </table>	Rated Voltage	4	6.3	10	16	25	35	50	63	Tanδ (max)	0.35	0.24	0.21	0.16	0.14	0.12	0.10	0.10											
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Tanδ (max)	0.35	0.24	0.21	0.16	0.14	0.12	0.10	0.10																						
Low Temperature Characteristics (at 120 Hz)	<p>Impedance ratio shall not exceed the values given in the table below.</p> <table border="1"> <tr> <th colspan="2">Rated Voltage</th> <td>4</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> </tr> <tr> <th rowspan="2">Impedance Ratio</th> <th>Z(-25°C)/Z(+20°C)</th> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <th>Z(-40°C)/Z(+20°C)</th> <td>12</td> <td>10</td> <td>8</td> <td>6</td> <td>5</td> <td>4</td> <td>4</td> <td>3</td> </tr> </table>	Rated Voltage		4	6.3	10	16	25	35	50	63	Impedance Ratio	Z(-25°C)/Z(+20°C)	6	4	3	3	2	2	2	2	Z(-40°C)/Z(+20°C)	12	10	8	6	5	4	4	3
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Impedance Ratio	Z(-25°C)/Z(+20°C)	6	4	3	3	2	2	2	2																					
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Endurance	<table border="1"> <tr> <th>Test Time</th> <td>1,000 Hrs</td> </tr> <tr> <th>Capacitance Change</th> <td>Within ±20% of initial value</td> </tr> <tr> <th>Tanδ</th> <td>Less than 200% of specified value</td> </tr> <tr> <th>Leakage Current</th> <td>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 with rated ripple current for 1,000 hours at 105°C.</p>	Test Time	1,000 Hrs	Capacitance Change	Within ±20% of initial value	Tanδ	Less than 200% of specified value	Leakage Current	Within specified value																					
Test Time	1,000 Hrs																													
Capacitance Change	Within ±20% of initial value																													
Tanδ	Less than 200% of specified value																													
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Shelf Life Test	Test time: 500 hours; other items are the same as those for the Endurance.																													
Ripple Current & Frequency Multipliers	<table border="1"> <tr> <th rowspan="3">Cap.(µF)</th> <th>Freq.(Hz)</th> <td>60 (50)</td> <td>120</td> <td>500</td> <td>1k</td> <td>10k up</td> </tr> <tr> <th>Under 47</th> <td>0.70</td> <td>1.00</td> <td>1.20</td> <td>1.30</td> <td>1.45</td> </tr> <tr> <th>100</th> <td>0.80</td> <td>1.00</td> <td>1.10</td> <td>1.15</td> <td>1.20</td> </tr> </table>	Cap.(µF)	Freq.(Hz)	60 (50)	120	500	1k	10k up	Under 47	0.70	1.00	1.20	1.30	1.45	100	0.80	1.00	1.10	1.15	1.20										
Cap.(µF)	Freq.(Hz)		60 (50)	120	500	1k	10k up																							
	Under 47		0.70	1.00	1.20	1.30	1.45																							
	100	0.80	1.00	1.10	1.15	1.20																								

Diagram of Dimensions



Lead Spacing and Diameter

Unit: mm

φ D	4	5	6.3	8
P	1.5	2.0	2.5	3.5
φ d	0.45	0.5		
α	1.0			
β	0.5			

Dimension & Permissible Ripple Current

Dimension: φ D × L(mm)

Ripple Current: mA/Rms at 120 Hz, 105°C

µF	V. DC Contents	4V (0G)		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)	
		φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA
1	010													4×7	10	4×7	10
2.2	2R2													4×7	16	5×7	19
3.3	3R3											4×7	18	4×7	20	6.3×7	29
4.7	4R7									4×7	19	5×7	21	6.3×7	24	6.3×7	36
10	100							4×7	27	5×7	29	6.3×7	32	8×7	40		
22	220					4×7	36	4×7	40	6.3×7	44	6.3×7	49				
33	330	4×7	33	4×7	41	5×7	44	5×7	50	6.3×7	55	8×7	67				
47	470	4×7	39	5×7	49	6.3×7	54	6.3×7	62	8×7	74						
100	101	6.3×7	59	6.3×7	75	8×7	90										

Part Numbering System

SA series	100µF	±20%	6.3V	Bulk Package	Gas Type	6.3 φ × 7L	Pb-free and PET coating case
<b>SA-</b>	<b>101</b>	<b>M</b>	<b>0J</b>	<b>BK</b>	-	<b>0607</b>	
Series	Capacitance	Capacitance Tolerance	Rated Voltage	Lead Configuration & Package	Rubber Type	Case Size	Lead Wire and Coating Type

Note: For more details, please refer to "Part Numbering System (Radial Type)" on page 10.