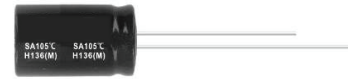


Features

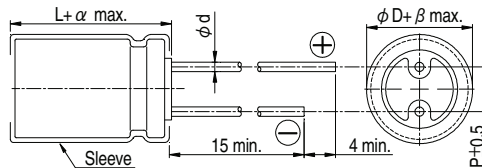
- 105°C, 1,000 hours assured, 7mm height with low leakage current
- Use in very compact high temperature industrial equipment
- RoHS compliance



Specifications

Items	Performance																											
Category Temperature Range	-40°C ~ +105°C																											
Capacitance Tolerance	±20% (at 120 Hz, 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 120 Hz, 20°C)	<table border="1"> <thead> <tr> <th>Rated Voltage</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>Tanδ (max)</td> <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> </tbody> </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"> <thead> <tr> <th>Rated Voltage</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>Impedance Ratio Z(-25°C)/Z(+20°C)</td> <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> <td>Z(-40°C)/Z(+20°C)</td> <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> </tbody> </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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Endurance	<table border="1"> <thead> <tr> <th>Test Time</th> <th>1,000 Hrs</th> </tr> </thead> <tbody> <tr> <td>Capacitance Change</td> <td>Within ±20% 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> </tbody> </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																			
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Capacitance Change	Within ±20% of initial value																											
Tanδ	Less than 200% of specified value																											
Leakage Current	Within specified value																											
Shelf Life Test	Test time: 500 hours; other items are the same as those for the Endurance.																											
Ripple Current and Frequency Multipliers	<table border="1"> <thead> <tr> <th>Cap.(µF) \ Freq.(Hz)</th> <th>60 (50)</th> <th>120</th> <th>500</th> <th>1k</th> <th>10k up</th> </tr> </thead> <tbody> <tr> <td>≤ 47</td> <td>0.70</td> <td>1.00</td> <td>1.20</td> <td>1.30</td> <td>1.45</td> </tr> <tr> <td>100</td> <td>0.80</td> <td>1.00</td> <td>1.10</td> <td>1.15</td> <td>1.20</td> </tr> </tbody> </table>	Cap.(µF) \ Freq.(Hz)	60 (50)	120	500	1k	10k up	≤ 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																							
≤ 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 and Permissible Ripple Current

Dimension: φ D × L (mm)
Ripple Current: mA/rms at 120 Hz, 105°C

Rated Volt. (Voc)	µF	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 6.3φ × 7L

SA- **101** **M** **0J** **BK** - **0607** **XX**

Series Name Capacitance Capacitance Tolerance Rated Voltage Lead Configuration and Package Rubber Type Case Size

XX
S = Standard
KS = AEC-Q200 Qualified, Safety Critical Application
LS = AEC-Q200 Qualified, Non-Safety Critical Application