



SG Series

Features

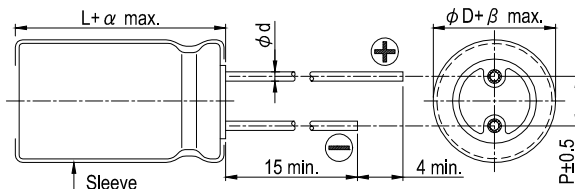
- 105°C, 1,000 hours assured
- High temperature Category range, with 7mm height
- RoHS compliant



Specifications

Items	Performance																													
Category Temperature Range	-40°C ~ +105°C																													
Capacitance Tolerance	± 20% (at 120 Hz, 20°C)																													
Leakage Current (at 20°C)	I = 0.01CV 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°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>0.23</td> <td>0.20</td> <td>0.17</td> <td>0.15</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	0.23	0.20	0.17	0.15	0.12	0.10	0.10											
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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 colspan="2">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 rowspan="2">Impedance Ratio</td> <td>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>4</td> <td>4</td> <td>4</td> <td>4</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	4	4	4	4
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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 rowspan="2">Cap.(μF)</th> <th colspan="6">Freq.(Hz)</th> </tr> <tr> <th>60 (50)</th> <th>120</th> <th>500</th> <th>1k</th> <th>10k up</th> <th></th> </tr> </thead> <tbody> <tr> <td>≤ 47</td> <td>0.75</td> <td>1.00</td> <td>1.20</td> <td>1.30</td> <td>1.45</td> <td></td> </tr> <tr> <td>100 ~ 330</td> <td>0.88</td> <td>1.00</td> <td>1.10</td> <td>1.15</td> <td>1.20</td> <td></td> </tr> </tbody> </table>	Cap.(μF)	Freq.(Hz)						60 (50)	120	500	1k	10k up		≤ 47	0.75	1.00	1.20	1.30	1.45		100 ~ 330	0.88	1.00	1.10	1.15	1.20			
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Diagram of Dimensions



Lead Spacing and Diameter Unit: mm

	4	5	6.3	8
φD	4	5	6.3	8
P	1.5	2.0	2.5	3.5
φd	0.45	0.5		
α	1.0			
β	0.5			

Dimension and Permissible Ripple Current

Dimension: φD × L(mm)

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

μF	Contents	4V (0G)		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)	
		φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA
1	010													4×7	10	4×7	11
2.2	2R2													4×7	15	4×7	17
3.3	3R3													4×7	18	4×7	21
4.7	4R7													5×7*	23	5×7	26
10	100						4×7	25	4×7	26	5×7*	30	6.3×7*	34	6.3×7	40	
22	220			4×7	31	4×7	32	5×7*	39	5×7*	41	6.3×7	47	6.3×7	53	8×7	70
33	330	4×7	32	4×7	32	4×7	35	5×7	43	6.3×7	53	8×7*	71	8×7	76		
47	470	4×7	38	4×7	38	5×7*	47	6.3×7*	59	6.3×7	65	8×7	83	8×7	85		
100	101	5×7	61	6.3×7*	75	6.3×7	80	6.3×7	90	8×7	125						
220	221	6.3×7	90	6.3×7	99	8×7	140	8×7	146								
330	331	8×7	156	8×7	156												

Note: Case size in mark of "*" is available to product down size.

Part Numbering System

SG Series 330μF ± 20% 6.3V Bulk Package Gas Type 8 φ × 7L General Purpose

SG- **331** **M** **0J** **BK** - **0807**

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

Note: For more details, please refer to "Part Numbering System - Radial Type" on page 139.