

## SSN Series

### Features

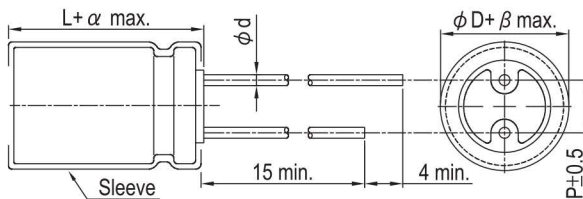
- 85°C, 1,000 hours assured, bi-polarized series with 5mm height
- Suitable for use in circuits which has a reversed or unknown polarity
- RoHS compliance
- AEC-Q200 Parts Available: Replace “S” Suffix with “KS” or “LS” Suffix



### Specifications

Items	Performance																											
Category Temperature Range	-40°C ~ +85°C																											
Capacitance Tolerance	±20% (at 120 Hz, 20°C)																											
Leakage Current (at 20°C)	I = 0.05CV or 10 (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> </tr> </thead> <tbody> <tr> <td>Tanδ (max)</td> <td>0.35</td> <td>0.24</td> <td>0.20</td> <td>0.17</td> <td>0.17</td> <td>0.15</td> <td>0.15</td> </tr> </tbody> </table>	Rated Voltage	4	6.3	10	16	25	35	50	Tanδ (max)	0.35	0.24	0.20	0.17	0.17	0.15	0.15											
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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> </tr> </thead> <tbody> <tr> <td>Impedance</td> <td>Z(-25°C)/Z(+20°C)</td> <td>7</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Ratio</td> <td>Z(-40°C)/Z(+20°C)</td> <td>15</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Rated Voltage		4	6.3	10	16	25	35	50	Impedance	Z(-25°C)/Z(+20°C)	7	4	3	2	2	2	2	Ratio	Z(-40°C)/Z(+20°C)	15	10	8	6	4	3	3
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Endurance (After application of the rated voltage at 85°C, the polarity inverted every 250 Hrs.)	<table border="1"> <thead> <tr> <th>Test Time</th> <th>1,000 Hrs</th> </tr> </thead> <tbody> <tr> <td>Capacitance Change</td> <td>Within ±30% of initial value for 4 ~ 6.3 V Within ±25% of initial value for 10 ~ 50V</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 for 1,000 hours at 85°C.</p>	Test Time	1,000 Hrs	Capacitance Change	Within ±30% of initial value for 4 ~ 6.3 V Within ±25% of initial value for 10 ~ 50V	Tanδ	Less than 200% of specified value	Leakage Current	Within specified value																			
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Shelf Life Test	Test time: 500 hours; LC: Less than 200% of specified value; other items are the same as those for the Endurance.																											

### Diagram of Dimensions



Lead Spacing and Diameter Unit: mm

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

### Dimension and Permissible Ripple Current

Dimension: φD×L(mm)

Ripple Current: mA/rms at 120 Hz, 85°C

Cap. (μF)	Contents	4V (0G)		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)	
		φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA
0.33	R33													4×5	3.5
0.47	R47													4×5	4.2
1	010										4×5	5.5	4×5	6.1	
2.2	2R2								4×5	8	4×5	9.1	5×5	10	
3.3	3R3							4×5	9	4×5	10	5×5	12	5×5	13
4.7	4R7					4×5	11	5×5	12	5×5	14	5×5	15	6.3×5	16
10	100	4×5	19	4×5	15	5×5	19	6.3×5	21	6.3×5	22	6.3×5	24		
22	220	5×5	23	5×5	26	6.3×5	31	6.3×5	33						
33	330	6.3×5	30	6.3×5	36	6.3×5	38								
47	470	6.3×5	36	6.3×5	41										

### Part Numbering System

SSN Series	47μF	±20%	6.3V	Bulk Package	Gas Type	6.3φ×5L
<b>SSN</b>	<b>470</b>	<b>M</b>	<b>0J</b>	<b>BK</b>	-	<b>0605</b>
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Lead Configuration and Package	Rubber Type	Case Size
						Regional Code

Note: For more details, please refer to “Part Numbering System (Radial Type)” on page 13.