



SJA Series

Features

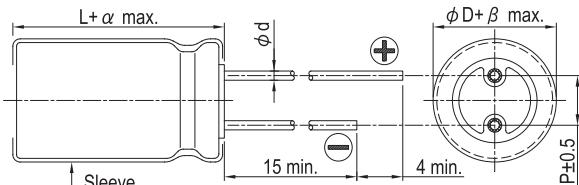
- 105°C, 2,000 hours assured
- High temperature category range, with 7mm height
- RoHS compliant



Specifications

Items	Performance																																												
Category Temperature Range	-55°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"> <tr> <td>Rated Voltage</td> <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> <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> </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"> <tr> <td>Rated Voltage</td> <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> <td>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> </tr> <tr> <td></td> <td>Z(-55°C)/Z(+20°C)</td> <td>12</td> <td>10</td> <td>8</td> <td>6</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		Z(-55°C)/Z(+20°C)	12	10	8	6	4	4	3									
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Endurance	<table border="1"> <tr> <td>Test Time</td> <td colspan="8">2,000 Hrs</td> </tr> <tr> <td>Capacitance Change</td> <td colspan="8">Within ±25% of initial value</td> </tr> <tr> <td>Tanδ</td> <td colspan="8">Less than 200% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td colspan="8">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 2,000 hours at 105°C.</p>									Test Time	2,000 Hrs								Capacitance Change	Within ±25% of initial value								Tanδ	Less than 200% of specified value								Leakage Current	Within specified value							
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Shelf Life Test	Test time: 1,000 hours; other items are the same as those for the Endurance.																																												
Ripple Current and Frequency Multipliers	<table border="1"> <tr> <td>Freq.(Hz)</td> <td>60 (50)</td> <td>120</td> <td>500</td> <td>1k</td> <td>10k up</td> </tr> <tr> <td>Cap.(μF)</td> <td>≤ 47</td> <td>0.75</td> <td>1.00</td> <td>1.20</td> <td>1.30</td> <td>1.45</td> </tr> <tr> <td></td> <td>100 ~ 470</td> <td>0.88</td> <td>1.00</td> <td>1.10</td> <td>1.15</td> <td>1.20</td> </tr> </table>									Freq.(Hz)	60 (50)	120	500	1k	10k up	Cap.(μF)	≤ 47	0.75	1.00	1.20	1.30	1.45		100 ~ 470	0.88	1.00	1.10	1.15	1.20																
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Diagram of Dimensions



Lead Spacing and Diameter Unit: mm				
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: φ D×L(mm)

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

Dimension and Permissible Ripple Current

Rated Volt. (V _{DC})	4V (0G)		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)				
μF	Contents	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													4x7	10	4x7	11		
2.2	2R2													4x7	15	4x7	17		
3.3	3R3													4x7	18	4x7	21		
4.7	4R7													4x7	22	5x7	23	5x7	26
10	100							4x7	25	4x7	26	5x7	30	6.3x7	34	6.3x7	40		
22	220							5x7	39	5x7	41	6.3x7	47	6.3x7	53	8x7	70		
33	330	4x7	32	4x7	32	4x7	35	5x7	43	6.3x7	53	8x7	71	8x7	76				
47	470	4x7	38	4x7	38	5x7	47	6.3x7	59	6.3x7	65	8x7	83	8x7	85				
100	101	5x7	61	6.3x7	75	6.3x7	80	6.3x7	90	8x7	125	8x7	145						
220	221	6.3x7	90	6.3x7	99	8x7	140	8x7	146										
330	331	8x7	156	8x7	156	8x7	160												
470	471	8x7	180	8x7	180														

Part Numbering System

SJA Series	470μF	±20%	6.3V	Bulk Package	Gas Type	8 φ × 7L	General Purpose
SJA	471	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.