

RJA Series

Features

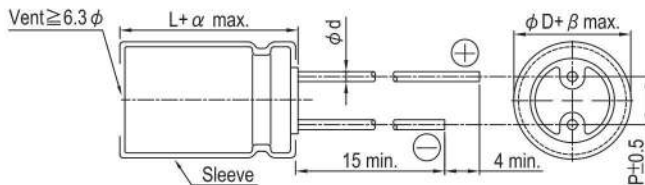
- 105°C, wide temperature range
- Suitable for high reliability products
- RoHS compliance
- AEC-Q200 Parts Available: Replace "S" Suffix with "KS" or "LS" Suffix



Specifications

Items	Performance																																																
Category Temperature Range	6.3 ~ 63V -55°C ~ +105°C	100V -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"> <tr> <th>Rated Voltage</th> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <th>Tanδ (max)</th> <td>0.23</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> </tr> </table> <p>When the capacitance exceeds 1,000μF, 0.02 shall be added every 1,000μF increase.</p>		Rated Voltage	6.3	10	16	25	35	50	63	100	Tanδ (max)	0.23	0.20	0.16	0.14	0.12	0.10	0.09	0.08																													
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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> <th colspan="2">Rated Voltage</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> <tr> <th rowspan="4">Impedance Ratio</th> <th>Z(-25°C)</th> <td>φ D < 16</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(+20°C)</th> <td>φ D ≥ 16</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> </tr> <tr> <th>Z(-40/-55°C)</th> <td>φ D < 16</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> <tr> <th>/Z(+20°C)</th> <td>φ D ≥ 16</td> <td>12</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>6</td> </tr> </table>		Rated Voltage		6.3	10	16	25	35	50	63	100	Impedance Ratio	Z(-25°C)	φ D < 16	4	3	3	2	2	2	2	/Z(+20°C)	φ D ≥ 16	5	4	3	2	2	2	3	Z(-40/-55°C)	φ D < 16	8	6	4	4	4	3	3	/Z(+20°C)	φ D ≥ 16	12	8	6	4	3	3	6
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Diagram of Dimensions



Lead Spacing and Diameter

Unit: mm

φ D	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φ d	0.5		0.6		0.8		
α	L < 20: 1.5, L ≥ 20: 2.0						
β	0.5						

Dimension: $\phi D \times L$ (mm)

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

Dimension and Permissible Ripple Current

Cap. (μF)	Rated Volt. (V _{DC})	Contents	6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)		100V (2A)		
			$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	
2.2	2R2													5×11	20			5×11	26
3.3	3R3													5×11	30			5×11	31
4.7	4R7													5×11	33	5×11	36	5×11 6.3×11	36 40
10	100													5×11	50	5×11	54	6.3×11	54
22	220													5×11	78	5×11 6.3×11	64 86	6.3×11 8×11.5	93 111
33	330									5×11	85	5×11	90	6.3×11	90	6.3×11	100	8×11.5 10×12.5	144 183
47	470								5×11	97	5×11	90	6.3×11	117	6.3×11	129	10×12.5	204	
100	101					5×11	110	5×11 6.3×11	120 142	6.3×11	150	8×11.5	188	10×12.5	235	10×20	285		
220	221			5×11	150	6.3×11	180	8×11.5	236	8×11.5	270	10×16	335	10×20	400	12.5×25	440		
330	331			6.3×11	200	8×11.5	260	8×11.5	330	10×12.5	350	10×16 10×20	410 460	10×20 12.5×20	490 520	16×25	478		
470	471	6.3×11	230	6.3×11 8×11.5	250 290	8×11.5	310	10×12.5	380	10×16	460	12.5×20	590	12.5×20 12.5×25	665 720	16×31.5	688		
1,000	102	8×11.5	380	10×12.5	460	10×16	560	10×20	680	12.5×20	830	16×25	1,080						
2,200	222	10×16	690	10×20	760	12.5×20	920	12.5×25	1,090	16×25	1,260	16×35.5	1,470						
3,300	332	10×20	840	12.5×20	1,100	12.5×25	1,170	16×25	1,400	16×35.5	1,610	18×35.5	1,650						
4,700	472	12.5×20	1,090	12.5×25	1,260	16×25	1,480	16×31.5	1,710	18×35.5	1,900								
6,800	682	12.5×25	1,460	16×25	1,690	16×31.5	1,930	18×35.5	2,160										
10,000	103	16×25	1,990	16×31.5	2,220	18×31.5	2,330												
22,000	223	18×35.5	2,930	18×40	3,230														

Part Numbering System

RJA Series	470 μF	$\pm 20\%$	6.3V	Bulk Package	Gas Type	6.3 $\phi \times 11L$	
<u>RJA</u>	<u>471</u>	<u>M</u>	<u>0J</u>	<u>BK</u>	-	<u>0611</u>	<u>S</u>
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.

Radial