

## RXJ Series

### Features

- 105°C, 2,000 ~ 5,000 hours assured
- Low ESR, suitable for switching power supplies
- Smaller size with large permissible ripple current
- RoHS Compliance

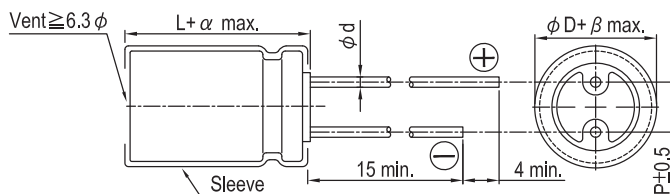


Sleeve & Marking Color: Brown & White

### Specifications

Items	Performance																																											
Category	6.3 ~ 63V	100V																																										
Temperature Range	-55°C ~ +105°C	-40°C ~ +105°C																																										
Capacitance Tolerance	±20% (at 120Hz, 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 120Hz, 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>0.22</td> <td>0.19</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)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08																								
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Low Temperature Characteristics (at 120Hz)	<p>Impedance ratio shall not exceed the values given in the table below.</p> <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>Impedance Ratio Z(-55°C)/Z(+20°C)</th> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>		Rated Voltage	6.3	10	16	25	35	50	63	100	Impedance Ratio Z(-55°C)/Z(+20°C)	4	4	3	3	3	3	3	3																								
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Ripple Current and Frequency Multipliers	<table border="1"> <tr> <th rowspan="2">Cap.(μF)</th> <th colspan="7">Freq.(Hz)</th> </tr> <tr> <th>60 (50)</th> <th>120</th> <th>500</th> <th>1k</th> <th>10k</th> <th>100k</th> </tr> <tr> <td>Under 33</td> <td>0.40</td> <td>0.55</td> <td>0.65</td> <td>0.80</td> <td>0.90</td> <td>1.00</td> </tr> <tr> <td>39 ~ 330</td> <td>0.60</td> <td>0.70</td> <td>0.80</td> <td>0.90</td> <td>0.95</td> <td>1.00</td> </tr> <tr> <td>390 ~ 1,000</td> <td>0.65</td> <td>0.80</td> <td>0.85</td> <td>0.98</td> <td>1.00</td> <td>1.00</td> </tr> <tr> <td>1,200 up above</td> <td>0.80</td> <td>0.90</td> <td>0.95</td> <td>0.98</td> <td>1.00</td> <td>1.00</td> </tr> </table>		Cap.(μF)	Freq.(Hz)							60 (50)	120	500	1k	10k	100k	Under 33	0.40	0.55	0.65	0.80	0.90	1.00	39 ~ 330	0.60	0.70	0.80	0.90	0.95	1.00	390 ~ 1,000	0.65	0.80	0.85	0.98	1.00	1.00	1,200 up above	0.80	0.90	0.95	0.98	1.00	1.00
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### Diagram of Dimensions



Lead Spacing and Diameter Unit: mm

	5	6.3	8	10	12.5	16	18
φD	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φd	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 100k Hz, 105°C

### Dimension and Permissible Ripple Current

Cap. ( $\mu F$ )	Contents	6.3V (0J)				10V (1A)				16V (1C)						
		$\phi D \times L$	Impedance ( $\Omega$ , max./100k Hz)		Ripple Current (mA/rms, 105°C)		$\phi D \times L$	Impedance ( $\Omega$ , max./100k Hz)		Ripple Current (mA/rms, 105°C)		$\phi D \times L$	Impedance ( $\Omega$ , max./100k Hz)		Ripple Current (mA/rms, 105°C)	
			20°C	-10°C	120 Hz	100k Hz		20°C	-10°C	120 Hz	100k Hz		20°C	-10°C	120 Hz	100k Hz
33											5×11	1.30	3.90	108	154	
39											5×11	1.30	3.90	108	154	
47						5×11	2.10	5.50	78	111	6.3×11	0.60	1.80	182	260	
56						5×11	1.90	4.80	85	121	6.3×11	0.60	1.80	182	260	
68						5×11	1.30	3.90	108	154	6.3×11	0.60	1.80	182	260	
100	5×11	1.30	3.90	108	154	6.3×11	0.60	1.80	182	260	6.3×11	0.60	1.80	182	260	
220	6.3×11	0.60	1.80	182	260	8×11.5	0.33	0.99	280	400	8×11.5	0.33	0.99	320	400	
330	8×11.5	0.33	0.88	280	400	8×11.5	0.33	0.99	280	400	10×12.5	0.25	0.75	360	510	
390	8×11.5	0.33	0.88	320	400	10×12.5	0.27	0.75	410	510	10×16	0.19	0.57	510	635	
470	10×12.5	0.25	0.75	410	510	10×12.5	0.25	0.75	410	510	10×16	0.19	0.57	510	635	
560	10×12.5	0.25	0.75	410	510	10×16	0.19	0.57	510	635	10×20	0.14	0.42	775	860	
680	10×16	0.19	0.57	510	635	10×16	0.19	0.57	510	635	10×20	0.14	0.42	775	860	
1,000	10×20	0.14	0.42	690	860	10×20	0.14	0.37	690	860	12.5×20	0.085	0.26	1,000	1,250	
1,200	10×20	0.14	0.42	775	860	10×25	0.12	0.30	930	1,030	12.5×20	0.085	0.26	1,125	1,250	
2,200	12.5×20	0.085	0.26	1,125	1,250	12.5×25	0.070	0.21	1,200	1,355	12.5×25	0.070	0.21	1,200	1,355	
3,300	12.5×25	0.070	0.21	1,200	1,355	12.5×25	0.070	0.21	1,200	1,355	16×31.5	0.048	0.14	1,830	2,030	
4,700	16×25	0.060	0.18	1,595	1,770	16×31.5	0.048	0.14	1,830	2,030	16×35.5	0.044	0.13	2,065	2,295	

Cap. ( $\mu F$ )	Contents	25V (1E)				35V (1V)				50V (1H)						
		$\phi D \times L$	Impedance ( $\Omega$ , max./100k Hz)		Ripple Current (mA/rms, 105°C)		$\phi D \times L$	Impedance ( $\Omega$ , max./100k Hz)		Ripple Current (mA/rms, 105°C)		$\phi D \times L$	Impedance ( $\Omega$ , max./100k Hz)		Ripple Current (mA/rms, 105°C)	
			20°C	-10°C	120Hz	100KHz		20°C	-10°C	120Hz	100KHz		20°C	-10°C	120Hz	100KHz
2.2											5×11	4.0	12.0	48	88	
3.3											5×11	3.50	11.0	52	94	
4.7											5×11	3.00	9.00	55	100	
6.8											5×11	3.00	9.00	55	100	
10											5×11	2.00	6.00	68	124	
22						5×11	1.30	3.90	108	154	6.3×11	0.60	1.80	143	260	
33	5×11	1.30	3.90	108	154	6.3×11	0.60	1.80	182	260	6.3×11	0.60	1.80	143	260	
39	6.3×11	0.60	1.80	182	260	6.3×11	0.60	1.80	182	260	6.3×11	0.60	1.80	182	260	
47	6.3×11	0.60	1.80	182	260	6.3×11	0.60	1.80	182	260	8×11.5	0.33	0.99	320	400	
56	6.3×11	0.60	1.80	182	260	6.3×11	0.60	1.80	182	260	8×11.5	0.33	0.99	320	400	
68	6.3×11	0.60	1.80	182	260	6.3×11	0.60	1.80	182	260	8×11.5	0.33	0.99	320	400	
100	8×11.5	0.33	0.99	320	400	8×11.5	0.33	0.99	320	400	10×16	0.19	0.57	445	635	
220	10×12.5	0.25	0.75	360	510	10×16	0.19	0.57	445	635	10×25	0.12	0.30	825	1,030	
330	10×16	0.19	0.57	445	635	10×20	0.12	0.42	600	860	12.5×20	0.085	0.26	875	1,250	
390	10×20	0.14	0.42	775	965	10×25	0.12	0.30	930	1,030	12.5×25	0.070	0.21	1,085	1,355	
470	10×20	0.14	0.42	775	965	12.5×20	0.085	0.26	1,000	1,250	12.5×25	0.070	0.21	1,085	1,355	
560	10×25	0.12	0.30	930	1,030	12.5×20	0.085	0.26	1,000	1,250	12.5×25	0.070	0.21	1,085	1,355	
680	12.5×20	0.085	0.26	1,000	1,250	12.5×25	0.070	0.21	1,085	1,355	16×25	0.060	0.18	1,415	1,770	
1,000	12.5×25	0.070	0.23	1,080	1,355	12.5×25	0.070	0.21	1,085	1,355	16×25	0.060	0.18	1,595	1,770	
1,200	12.5×25	0.070	0.21	1,200	1,355	12.5×25	0.070	0.21	1,200	1,355	16×31.5	0.048	0.14	1,830	2,030	
2,200	16×25	0.060	0.18	1,595	1,770	16×35.5	0.044	0.13	2,065	2,295	18×40	0.037	0.10	2,465	2,740	
3,300	16×35.5	0.044	0.13	2,065	2,295	18×40	0.037	0.10	2,465	2,740						
4,700	18×40	0.037	0.10	2,465	2,740											



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

Ripple Current: mA/rms at 100k Hz, 105°C

Dimension and Permissible Ripple Current

Cap. ( $\mu$ F)	Contents	63V (1J)				100V (2A)					
		$\phi D \times L$	Impedance ( $\Omega$ , max./100k Hz)		Ripple Current (mA/rms, 105°C)		$\phi D \times L$	Impedance ( $\Omega$ , max./100k Hz)		Ripple Current (mA/rms, 105°C)	
			20°C	-10°C	120 Hz	100k Hz		20°C	-10°C	120 Hz	100k Hz
2.2						5×11	6.00	21.0	40	72	
3.3						5×11	5.00	18.0	43	78	
4.7						6.3×11	1.20	4.20	100	180	
6.8						6.3×11	1.20	4.20	100	180	
10	6.3×11	1.20	4.20	100	180	8×11.5	0.56	2.00	168	305	
22	6.3×11	1.20	4.20	100	180	8×11.5	0.56	2.00	168	308	
33	8×11.5	0.56	2.00	170	305	10×12.5	0.50	1.80	210	380	
39	8×11.5	0.56	2.00	170	305	10×16	0.32	1.10	350	500	
47	8×11.5	0.56	2.00	170	305	10×20	0.27	0.95	435	620	
56	10×12.5	0.50	1.80	265	380	10×20	0.27	0.95	435	620	
68	10×12.5	0.50	1.80	265	380	10×25	0.21	0.63	530	760	
100	10×20	0.27	0.95	435	620	12.5×20	0.16	0.56	625	890	
220	12.5×20	0.094	0.24	570	820	16×25	0.090	0.32	1,010	1,440	
330	12.5×25	0.073	0.21	770	1,100	16×31.5	0.060	0.17	1,255	1,790	
390	12.5×25	0.073	0.21	770	1,100	16×35.5	0.056	0.14	1,650	2,065	
470	16×25	0.060	0.18	1,420	1,770						
560	16×31.5	0.048	0.14	1,625	2,030						
680	16×31.5	0.048	0.14	1,625	2,030						
1,000	18×35.5	0.041	0.11	1,790	2,240						

Part Numbering System

RXJ Series	470 $\mu$ F	$\pm$ 20%	6.3V	Bulk Package	Gas Type	10 $\phi$ × 12.5L	Pb-free and PET sleeve
<b>RXJ</b>	<b>471</b>	<b>M</b>	<b>0J</b>	<b>BK</b>	-	<b>1012</b>	
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Lead Configuration & Package	Rubber Type	Case Size	Lead Wire and Sleeve type

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

Radial