

Features

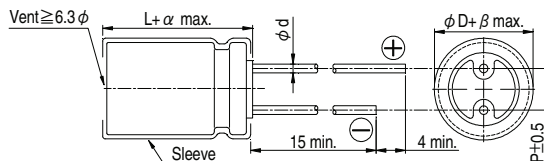
- 105°C, 2,000 ~ 5,000 hours assured
- Low ESR, suitable for switching power supplies
- Smaller size with large permissible ripple current
- RoHS compliance



Specifications

Items	Performance																																									
Category	6.3 ~ 63V	100V																																								
Temperature Range	-55°C ~ +105°C	-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>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> </thead> <tbody> <tr> <td>Tanδ (max)</td> <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> </tbody> </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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Ripple Current and Frequency Multipliers	<table border="1"> <thead> <tr> <th>Cap.(µF)</th> <th>Freq.(Hz)</th> <th>60 (50)</th> <th>120</th> <th>500</th> <th>1k</th> <th>10k</th> <th>100k</th> </tr> </thead> <tbody> <tr> <td>≤ 33</td> <td></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></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></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 ≤</td> <td></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> </tbody> </table>		Cap.(µF)	Freq.(Hz)	60 (50)	120	500	1k	10k	100k	≤ 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 ≤		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

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)
 Impedance: Ω / at 100k Hz
 Ripple Current: mA/rms at 105°C

Dimension and Permissible Ripple Current

Rated Volt. (V _{DC})	Contents	6.3V (0J)				10V (1A)				16V (1C)						
		$\phi D \times L$	Impedance (Ω , max./100k Hz)		Ripple Current (mA/rms, 105°C)		$\phi D \times L$	Impedance (Ω , max./100k Hz)		Ripple Current (mA/rms, 105°C)		$\phi D \times L$	Impedance (Ω , 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

Rated Volt. (V _{DC})	Contents	25V (1E)				35V (1V)				50V (1H)						
		$\phi D \times L$	Impedance (Ω , max./100k Hz)		Ripple Current (mA/rms, 105°C)		$\phi D \times L$	Impedance (Ω , max./100k Hz)		Ripple Current (mA/rms, 105°C)		$\phi D \times L$	Impedance (Ω , max./100k Hz)		Ripple Current (mA/rms, 105°C)	
			20°C	-10°C	120 Hz	100KHz		20°C	-10°C	120 Hz	100KHz		20°C	-10°C	120 Hz	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: ϕ D×L(mm)
 Impedance: Ω / at 100k Hz
 Ripple Current: mA/rms at 105°C

Dimension and Permissible Ripple Current

Rated Volt. (V _{DC})	Contents	63V (1J)				100V (2A)					
		ϕ D×L	Impedance (Ω , max./100k Hz)		Ripple Current (mA/rms, 105°C)		ϕ D×L	Impedance (Ω , 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 μ F \pm 20% 6.3V Bulk Package Gas Type 10 ϕ × 12.5L

RXJ **471** **M** **0J** **BK** **-** **1012** **XX**

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

XX
S = Standard
KS = AEC-Q200 Qualified,
 Safety Critical Application
LS = AEC-Q200 Qualified,
 Non-Safety Critical Application