



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

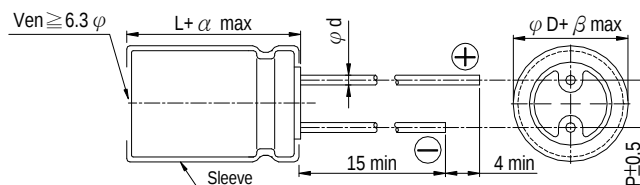


Sleeve & Marking Color: Brown & White

Specifications

Items	Performance																																												
Category Temperature Range	6.3 ~ 63V					100V																																							
	-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																																												
Dissipation Factor (Tanδ at 120Hz, 20°C)	<table><tr><td>Rated Voltage</td><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><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></table>									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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When the capacitance exceeds 1,000μF, 0.02 shall be added every 1,000μF increase.																																													
Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below.																																												
	<table><tr><td>Rated Voltage</td><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><td>Impedance Ratio</td><td>Z(-55°C)/Z(+20°C)</td><td>4</td><td>4</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																									
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Endurance	<table><tr><td>Test Time</td><td colspan="8">2,000 Hrs for ϕ D ≤ 8 mm; 5,000 Hrs for ϕ D ≥ 10 mm</td></tr><tr><td>Capacitance Change</td><td colspan="8">Within ±20% of initial value</td></tr><tr><td>Dissipation Factor</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>									Test Time	2,000 Hrs for ϕ D ≤ 8 mm; 5,000 Hrs for ϕ D ≥ 10 mm								Capacitance Change	Within ±20% of initial value								Dissipation Factor	Less than 200% of specified value								Leakage Current	Within specified value							
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* The above Specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied with rated ripple current for 2,000/5,000 hours at 105°C.																																													
Shelf Life Test	<table><tr><td>Test Time</td><td colspan="8">1,000 Hrs</td></tr><tr><td>Capacitance Change</td><td colspan="8">Within ±20% of initial value</td></tr><tr><td>Dissipation Factor</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>									Test Time	1,000 Hrs								Capacitance Change	Within ±20% of initial value								Dissipation Factor	Less than 200% of specified value								Leakage Current	Within specified value							
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* The above Specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied.																																													
Ripple Current & Frequency Multipliers	<table><tr><td rowspan="5">Cap.(μF) \ Freq.(Hz)</td><td>60 (50)</td><td>120</td><td>500</td><td>1k</td><td>10k</td><td>100k</td></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

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	1.0			L<20: 1.5, L≥20: 2.0			
β	0.5						



Dimension: $\phi D \times L(\text{mm})$

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

Dimension & Permissible Ripple Current

V. DC Item μF	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

V. DC Item μF	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	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)
 Dimension & Permissible Ripple Current
 Ripple Current: mA/rms at 100k Hz, 105°C

V. DC Item μF	63V (1J)					100V (2A)				
	$\phi D \times L$	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
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					

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