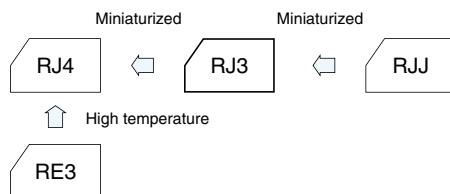


105°C Use, High-Reliability Capacitors Series RJ3

- Guarantees 2000 hours at 105°C (ø5~8: 1000 hours).



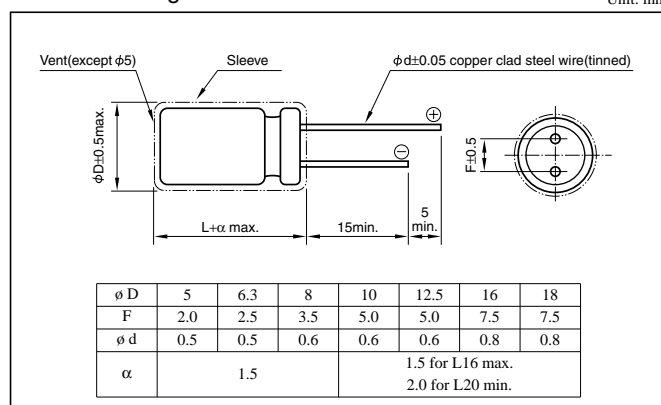
Marking color : White print on a black sleeve or
White print on a brown sleeve

Specifications

Item	Performance																																																																
Category temperature range (°C)	-55 to +105									-40 to +105																																																							
Rated voltage (V)	6.3 to 100									160 to 450																																																							
Tolerance at rated capacitance (%)	±20 (20°C,120Hz)									±20 (20°C,120Hz)																																																							
Leakage current (μA)	Less than 0.01CV or 3 whichever is larger(after 2 minutes) (20°C)									CV≤1000: Less than 0.1CV+40(after 1 minute) CV>1000: Less than 0.04CV+100(after 1 minute) (20°C)																																																							
	C: Rated capacitance(μF) V: Rated voltage(V)																																																																
Tangent of loss angle (tanδ)	<table><tr><td>Rated voltage (V)</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 (V)	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	<table><tr><td>Rated voltage (V)</td><td>160</td><td>200</td><td>250</td><td>315</td><td>350</td><td>400</td></tr><tr><td>tanδ (max.)</td><td>0.15</td><td>0.15</td><td>0.15</td><td>0.20</td><td>0.20</td><td>0.20</td></tr></table>							Rated voltage (V)	160	200	250	315	350	400	tanδ (max.)	0.15	0.15	0.15	0.20	0.20	0.20																	
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0.02 is added to every 1000μF increase over 1000μF (20°C,120Hz)																																																																	
Characteristics at high and low temperature	<table><tr><td colspan="2">Rated voltage (V)</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 rowspan="2">Impedance ratio (max.)</td><td>Z-25°C / Z+20°C</td><td>5</td><td>4</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td></tr><tr><td>Z-55°C / Z+20°C</td><td>10</td><td>8</td><td>6</td><td>4</td><td>3</td><td>3</td><td>3</td><td>3</td></tr></table>									Rated voltage (V)		6.3	10	16	25	35	50	63	100	Impedance ratio (max.)	Z-25°C / Z+20°C	5	4	3	2	2	2	2	2	Z-55°C / Z+20°C	10	8	6	4	3	3	3	3	<table><tr><td colspan="2">Rated voltage (V)</td><td colspan="3">160 to 250</td><td colspan="2">315 to 400</td></tr><tr><td rowspan="2">Impedance ratio (max.)</td><td>Z-25°C / Z+20°C</td><td colspan="3">3</td><td colspan="2">3</td></tr><tr><td>Z-40°C / Z+20°C</td><td colspan="3">8</td><td colspan="2">6</td></tr></table>							Rated voltage (V)		160 to 250			315 to 400		Impedance ratio (max.)	Z-25°C / Z+20°C	3			3		Z-40°C / Z+20°C	8			6	
	Rated voltage (V)		6.3	10	16	25	35	50	63	100																																																							
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(120Hz)																																																																	
Endurance (105°C) (Applied ripple current)	<table><tr><td colspan="5">Test time</td><td colspan="4">2000 hours (ø5 to ø8: 1000 hours)</td></tr><tr><td colspan="5">Leakage current</td><td colspan="4">The initial specified value or less</td></tr><tr><td colspan="5">Percentage of capacitance change</td><td colspan="4">Within ±20% of initial value</td></tr><tr><td colspan="5">Tangent of the loss angle</td><td colspan="4">200% or less of the initial specified value</td></tr></table>									Test time					2000 hours (ø5 to ø8: 1000 hours)				Leakage current					The initial specified value or less				Percentage of capacitance change					Within ±20% of initial value				Tangent of the loss angle					200% or less of the initial specified value																							
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	Tangent of the loss angle					200% or less of the initial specified value																																																											
Shelf life (105°C)	Test time : 1000 hours; other items are the same as those for the endurance. Voltage application treatment																																																																
Applicable standards	JIS C5101-1, -4 1998 (IEC 60384-1 1992, -4 1985)																																																																

Outline Drawing

Unit: mm



Coefficient of Frequency for Rated Ripple Current

Rated voltage(V)	Rated capacitance(µF)	Frequency(Hz)	50 · 60	120	1k	10k	100k
6.3 to 100	0.1 to 4.7		—	0.4	0.7	0.8	1
	10 to 47		—	0.5	0.8	0.9	1
	100 to 220		—	0.7	0.9	0.9	1
	330 to 1000		—	0.8	0.9	1.0	1
	2200 to 15000		—	0.9	1.0	1	1
160 to 400	0.47 to 220		0.8	1	1.3	1.4	1.6

Part numbering system (example: 63V1000µF)

Environmental item	RJ3	—	63	V	102	M	J7	#
	Series code		Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol	
Former item	RJ3	—	63	V	102	M	*	
	Series code		Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Additional symbol	

* Rated voltage	Additional symbol
6.3 to 50V	BX
63, 100V	AX
160 to 400V	—

Casing symbol

Size ø DxL(mm)	Casing Symbol	Size ø DxL(mm)	Casing Symbol
5x11	E3	12.5x25	I 6
6.3x11	F3	16x25	J 6
8x11.5	G3	16x31.5	J 7
10x12.5	H3	16x35.5	J 8
10x16	H4	18x35.5	K 8
10x20	H5	18x40	K 9
12.5x20	I 5		

Standard Ratings

Rated voltage(V) Rated Capacitance(μF) Item	6.3				10				16				25			
	Case	ESR	Impedance	Rated ripple current	Case	ESR	Impedance	Rated ripple current	Case	ESR	Impedance	Rated ripple current	Case	ESR	Impedance	Rated ripple current
	φ DxL(mm)	Ω	Ω	mArms	φ DxL(mm)	Ω	Ω	mArms	φ DxL(mm)	Ω	Ω	mArms	φ DxL(mm)	Ω	Ω	mArms
4.7	—	—	—	—	—	—	—	—	—	—	—	—	5x11	49.4	3.0	85
10	—	—	—	—	—	—	—	—	5x11	26.5	2.5	92	5x11	23.2	2.5	92
22	—	—	—	—	5x11	14.3	2.5	92	5x11	12.1	1.9	105	5x11	10.6	1.9	105
33	5x11	11.1	2.5	105	5x11	9.55	1.9	105	5x11	8.04	1.5	120	5x11	7.04	1.5	120
47	5x11	7.77	1.5	120	5x11	6.71	1.5	120	5x11	5.65	1.2	130	5x11	4.94	1.2	130
100	5x11	3.65	1.2	130	5x11	3.15	1.2	130	6.3x11	2.65	0.58	220	6.3x11	2.32	0.58	220
220	6.3x11	1.66	0.87	180	6.3x11	1.43	0.58	220	8x11.5	1.21	0.47	290	8x11.5	1.06	0.39	315
330	6.3x11	1.11	0.58	220	8x11.5	0.96	0.47	265	8x11.5	0.81	0.39	315	10x12.5	0.70	0.23	500
470	8x11.5	0.78	0.39	315	8x11.5	0.67	0.39	315	10x12.5	0.57	0.23	500	10x16	0.50	0.18	615
1000	10x12.5	0.37	0.23	500	10x16	0.32	0.18	615	10x20	0.27	0.12	825	12.5x20	0.23	0.090	1050
2200	12.5x20	0.18	0.095	1000	12.5x20	0.16	0.090	1050	12.5x25	0.14	0.068	1300	16x25	0.12	0.056	1740
3300	12.5x20	0.13	0.090	1050	12.5x25	0.12	0.068	1300	16x25	0.10	0.056	1740	16x31.5	0.09	0.045	2110
4700	16x25	0.10	0.061	1670	16x25	0.09	0.056	1740	16x31.5	0.08	0.045	2110	18x35.5	0.07	0.036	2580
6800	16x25	0.08	0.056	1740	16x31.5	0.07	0.045	2110	18x35.5	0.06	0.036	2580	—	—	—	—
10000	16x31.5	0.06	0.045	2110	18x35.5	0.06	0.036	2580	—	—	—	—	—	—	—	—
15000	18x35.5	0.05	0.036	2580	—	—	—	—	—	—	—	—	—	—	—	—

Rated voltage(V) Rated Capacitance(μF) Item	35				50				63				100			
	Case	ESR	Impedance	Rated ripple current	Case	ESR	Impedance	Rated ripple current	Case	ESR	Impedance	Rated ripple current	Case	ESR	Impedance	Rated ripple current
	φ DxL(mm)	Ω	Ω	mArms	φ DxL(mm)	Ω	Ω	mArms	φ DxL(mm)	Ω	Ω	mArms	φ DxL(mm)	Ω	Ω	mArms
0.1	—	—	—	—	5x11	1659	18	10	—	—	—	—	—	—	—	—
0.22	—	—	—	—	5x11	754	13	15	—	—	—	—	—	—	—	—
0.33	—	—	—	—	5x11	503	10	18	—	—	—	—	—	—	—	—
0.47	—	—	—	—	5x11	353	7.0	23	—	—	—	—	5x11	282	13	30
1	—	—	—	—	5x11	166	4.9	35	—	—	—	—	5x11	133	11	45
2.2	—	—	—	—	5x11	75.4	4.2	53	—	—	—	—	5x11	60.3	9.2	60
3.3	—	—	—	—	5x11	50.3	3.9	65	—	—	—	—	5x11	40.2	7.2	67
4.7	5x11	42.4	2.5	92	5x11	35.3	3.6	82	5x11	31.8	5.8	74	5x11	28.2	6.3	75
10	5x11	19.9	1.9	105	5x11	16.6	2.7	100	5x11	14.9	3.6	95	6.3x11	13.3	3.3	110
22	5x11	9.05	1.5	120	5x11	7.54	1.9	125	6.3x11	6.79	2.1	130	8x11.5	6.03	1.4	165
33	5x11	6.03	1.2	130	6.3x11	5.03	1.1	195	6.3x11	4.52	1.7	160	10x12.5	4.02	0.94	305
47	6.3x11	4.24	0.58	220	6.3x11	3.53	0.90	245	8x11.5	3.18	1.2	305	10x16	2.82	0.68	320
100	8x11.5	1.99	0.39	315	8x11.5	1.66	0.50	385	10x12.5	1.49	0.65	395	12.5x20	1.33	0.28	585
220	10x12.5	0.91	0.23	500	10x16	0.75	0.27	505	10x20	0.68	0.32	505	16x25	0.60	0.16	1120
330	10x16	0.60	0.18	615	10x20	0.50	0.18	675	12.5x20	0.45	0.22	660	16x25	0.40	0.13	1290
470	10x20	0.42	0.12	825	12.5x20	0.35	0.12	895	12.5x25	0.32	0.16	850	16x31.5	0.28	0.11	1350
1000	12.5x25	0.20	0.068	1300	16x25	0.17	0.076	1495	16x31.5	0.15	0.098	1430	—	—	—	—
2200	16x31.5	0.11	0.045	2110	18x35.5	0.09	0.050	2190	—	—	—	—	—	—	—	—
3300	18x35.5	0.08	0.036	2580	—	—	—	—	—	—	—	—	—	—	—	—

(Note) ESR : 20°C, 120Hz ; Impedance : 20°C, 100kHz ; Rated ripple current : 105°C, 100kHz

Rated voltage(V) Rated Capacitance(μF) Item	160			200			250			315			350			400		
	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current	Case	ESR	Rated ripple current
	φD x L (mm)	Ω	mArms	φD x L (mm)	Ω	mArms	φD x L (mm)	Ω	mArms	φD x L (mm)	Ω	mArms	φD x L (mm)	Ω	mArms	φD x L (mm)	Ω	mArms
0.47	6.3x11	529	12	6.3x11	529	12	6.3x11	529	12	6.3x11	705	11	6.3x11	705	11	—	—	—
1	6.3x11	248	18	6.3x11	248	18	6.3x11	248	18	6.3x11	331	16	6.3x11	331	18	8x11.5	331	18
2.2	6.3x11	113	26	6.3x11	113	26	8x11.5	113	30	8x11.5	150	27	8x11.5	150	30	10x12.5	150	30
3.3	8x11.5	75.4	37	8x11.5	75.4	37	10x12.5	75.4	43	10x12.5	100	36	10x12.5	100	36	10x16	100	40
4.7	8x11.5	52.9	44	10x12.5	52.9	50	10x12.5	52.9	50	10x16	70.6	47	10x16	70.6	47	10x20	70.6	52
10	10x12.5	24.9	75	10x12.5	24.9	80	10x20	24.9	90	10x20	33.2	75	12.5x20	33.2	79	12.5x20	33.2	79
22	10x20	11.3	135	10x20	11.3	135	12.5x25	11.3	155	12.5x25	15.1	130	12.5x25	15.1	130	16x25	15.1	130
33	12.5x20	7.54	175	12.5x25	7.54	190	12.5x25	7.54	190	16x25	10.1	160	16x25	10.1	160	16x31.5	10.1	175
47	12.5x25	5.29	230	12.5x25	5.29	230	16x25	5.29	225	16x31.5	7.06	210	16x31.5	7.06	210	18x35.5	7.06	220
100	16x25	2.49	330	16x31.5	2.49	360	18x35.5	2.49	340	18x40	3.32	335	18x40	3.32	335	—	—	—
220	18x35.5	1.13	500	18x40	1.13	525	—	—	—	—	—	—	—	—	—	—	—	—

(Note) ESR : 20°C, 120Hz ; Rated ripple current : 105°C, 120Hz

NOTE

Design, Specifications are subject to change without notice.
Ask factory for technical specifications before purchase and/or use.