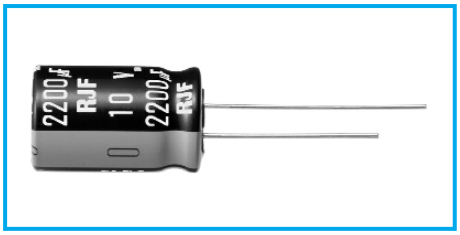
105˚C Use, Miniature, High-Reliability, Extra Low Impedance Capacitors Series RJF

- **Higher ripple current than RJB Series. The addition of 5L and 7L.**
- **Guarantees 5000 hours at 105˚C. (5L, 7L: 1000 hours ; ø 5 to 6.3: 2000 hours ; ø 8 to 10: 3000 hours)**

Low impedance

RJF ⇦ RJB



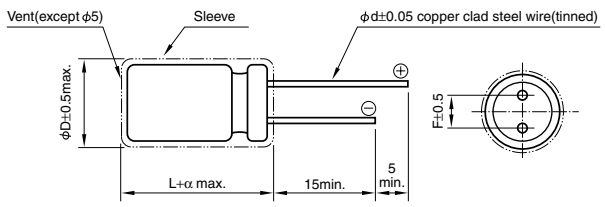
Marking color : White print on a black sleeve

Specifications

Item	Performance
Category temperature range (˚C)	–40 to +105
Tolerance at rated capacitance (%)	±20 (20˚C,120Hz)
Leakage current (μA)	Less than 0.01CV or 3 whichever is larger (after 2 minutes) C: Rated capacitance(μF); V: Rated voltage(V) (20˚C)
Tangent of loss angle (tanδ)	Rated voltage (V): 6.3 / 10 / 16 / 25 / 35 / 50 tanδ (max.): 0.22 / 0.19 / 0.16 / 0.14 / 0.12 / 0.10 0.02 is added to every 1000μF increase over 1000μF. (20˚C,120Hz)
Characteristics at high and low temperature	Rated voltage (V): 6.3 / 10 / 16 / 25 / 35 / 50 Impedance ratio (max.) Z–25˚C / Z+20˚C: 2 / 2 / 2 / 2 / 2 / 2 Z–40˚C / Z+20˚C: 3 / 3 / 3 / 3 / 3 / 3 (120Hz)
Endurance (105˚C) (Applied ripple current)	Test time: 5L & 7L : 1000 hours; ø 5 & ø 6.3 : 2000 hours; ø 8 & ø 10 : 3000 hours; ø 12.5 & ø 16 : 5000 hours Leakage current: The initial specified value or less Percentage of capacitance change: Within ±25% of initial value Tangent of the loss angle: 200% or less of the initial specified value
Shelf life (105˚C)	Test time: 1000 hours Leakage current: The initial specified value or less Percentage of capacitance change: Within ±25% of initial value Tangent of the loss angle: 200% or less of the initial specified value Voltage application treatment
Applicable standards	JIS C5101-1, -4 1998 (IEC 60384-1 1992, -4 1985)

Outline Drawing

Unit: mm



ø D	4	5	6.3	8	10,12.5	16
F	1.5	2.0	2.5	3.5	5.0	7.5
ø d	0.45	0.5	0.5	0.6	0.6	0.8
α	1.0	1.0	1.0	1.0	2.0	2.0

Coefficient of Frequency for Rated Ripple Current

Rated capacitance(μF) \ Frequency(Hz)	120	1k	10k	100k
5.6 to 180	0.40	0.75	0.90	1
220 to 390	0.50	0.85	0.95	1
470 to 1800	0.60	0.88	0.96	1
2200 to 3900	0.75	0.90	0.98	1
4700 to 6800	0.85	0.95	1	1

Part numbering system (example: 10V1000μF)

Environmental item	RJF (Series code)	—	10 (Rated voltage symbol)	V	102 (Rated capacitance symbol)	M (Capacitance tolerance symbol)	H4 (Casing symbol)	#
Former item	RJF (Series code)	—	10 (Rated voltage symbol)	V	102 (Rated capacitance symbol)	M (Capacitance tolerance symbol)	H4 (Casing symbol)	

• The electric characteristics are described on page 106.

• The standard ratings are described on the next page.

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

Standard Ratings

Rated voltage (V) / Item / Rated capacitance (μF)	6.3					10					16				
	Case	Casing symbol	Impedance (Ω)		Rated ripple current	Case	Casing symbol	Impedance (Ω)		Rated ripple current	Case	Casing symbol	Impedance (Ω)		Rated ripple current
	øD x L (mm)		20˚C	-10˚C	(mArms)	øD x L (mm)		20˚C	-10˚C	(mArms)	øD x L (mm)		20˚C	-10˚C	(mArms)
18	—	—	—	—	—	—	—	—	—	—	4x7	D1	0.85	2.6	130
27	—	—	—	—	—	4x7	D1	0.85	2.6	130	—	—	—	—	—
33	—	—	—	—	—	—	—	—	—	—	5x7	E1	0.45	1.4	210
											6.3x5	F0	0.30	0.95	210
39	4x7	D1	0.85	2.6	130	—	—	—	—	—	—	—	—	—	—
47	—	—	—	—	—	6.3x5	F0	0.29	0.93	210	—	—	—	—	—
56	—	—	—	—	—	5x7	E1	0.44	1.4	210	5x11.5	E3	0.30	1.0	250
68	5x7	E1	0.43	1.3	210	—	—	—	—	—	6.3x7	F1	0.24	0.72	300
100	6.3x5	F0	0.28	0.91	210	5x11.5	E3	0.30	1.0	250	—	—	—	—	—
120	—	—	—	—	—	6.3x7	F1	0.23	0.69	300	8x7	G1	0.15	0.45	380
											6.3x11.5	F2	0.13	0.41	405
150	5x11.5	E3	0.30	1.0	250	—	—	—	—	—	—	—	—	—	—
	6.3x7	F1	0.23	0.69	300										
180	—	—	—	—	—	8x7	G1	0.15	0.45	380	—	—	—	—	—
220	8x7	G1	0.15	0.45	380	6.3x11.5	F3	0.13	0.41	405	—	—	—	—	—
330	6.3x11.5	F3	0.13	0.41	405	—	—	—	—	—	8x12	G3	0.072	0.22	760
470	—	—	—	—	—	8x12	G3	0.072	0.22	760	8x15	G4	0.056	0.17	995
560	8x12	G3	0.072	0.22	760	—	—	—	—	—	10x16	H4	0.038	0.12	1430
680	—	—	—	—	—	10x12.5	H3	0.053	0.16	1030	—	—	—	—	—
820	8x15	G4	0.056	0.17	995	—	—	—	—	—	—	—	—	—	—
1000	10x12.5	H3	0.053	0.16	1030	10x16	H4	0.038	0.12	1430	10x20	H5	0.023	0.069	1820
1200	10x16	H4	0.038	0.12	1430	10x20	H5	0.023	0.069	1820	10x25	H6	0.022	0.066	2150
1500	10x20	H5	0.023	0.069	1820	10x25	H6	0.022	0.066	2150	12.5x20	I 5	0.021	0.053	2360
2200	10x25	H6	0.022	0.066	2150	12.5x20	I 5	0.021	0.053	2360	12.5x25	I 6	0.018	0.045	2770
2700	—	—	—	—	—	—	—	—	—	—	16x20	J 5	0.018	0.045	3140
3300	12.5x20	I 5	0.021	0.053	2360	12.5x25	I 6	0.018	0.045	2770	16x25	J 6	0.016	0.043	3460
3900	12.5x25	I 6	0.018	0.045	2770	16x20	J 5	0.018	0.045	3140	16x25	J 6	0.016	0.043	3460
4700	12.5x30	I 7	0.016	0.041	3290	16x25	J 6	0.016	0.043	3460	—	—	—	—	—
5600	16x20	J 5	0.018	0.045	3140	16x25	J 6	0.016	0.043	3460	—	—	—	—	—
6800	16x25	J 6	0.016	0.043	3460	—	—	—	—	—	—	—	—	—	—

Rated voltage (V) / Item / Rated capacitance (μF)	25					35					50				
	Case	Casing symbol	Impedance (Ω)		Rated ripple current	Case	Casing symbol	Impedance (Ω)		Rated ripple current	Case	Casing symbol	Impedance (Ω)		Rated ripple current
	øD x L (mm)		20˚C	-10˚C	(mArms)	øD x L (mm)		20˚C	-10˚C	(mArms)	øD x L (mm)		20˚C	-10˚C	(mArms)
5.6	—	—	—	—	—	—	—	—	—	—	4x7	D1	1.0	3.0	130
10	—	—	—	—	—	4x7	D1	0.96	2.9	130	5x7	E1	0.50	1.5	210
15	4x7	D1	0.94	2.9	130	—	—	—	—	—	—	—	—	—	—
18	—	—	—	—	—	5x7	E1	0.47	1.5	210	—	—	—	—	—
22	6.3x5	F0	0.31	0.97	210	6.3x5	F0	0.32	1.0	210	6.3x7	F1	0.26	0.78	300
											5x11.5	E3	0.34	1.18	238
27	5x7	E1	0.46	1.4	210	—	—	—	—	—	—	—	—	—	—
33	—	—	—	—	—	5x11.5	E3	0.30	1.0	250	8x7	G1	0.17	0.51	380
39	—	—	—	—	—	6.3x7	F1	0.25	0.75	300	—	—	—	—	—
47	5x11.5	E3	0.30	1.0	250	—	—	—	—	—	—	—	—	—	—
56	6.3x7	F1	0.24	0.72	300	8x7	G1	0.16	0.48	380	6.3x11.5	F3	0.14	0.50	385
						6.3x11.5	F3	0.13	0.42	405					
100	8x7	G1	0.15	0.45	380	—	—	—	—	—	8x12	G3	0.074	0.22	724
	6.3x11.5	F3	0.13	0.41	405										
120	—	—	—	—	—	—	—	—	—	—	8x15	G4	0.061	0.18	950
150	—	—	—	—	—	8x12	G3	0.072	0.22	760	10x12.5	H3	0.061	0.18	979
180	—	—	—	—	—	—	—	—	—	—	8x20	G5	0.046	0.14	1190
220	8x12	G3	0.072	0.22	760	10x12.5	H3	0.053	0.16	1030	10x16	H4	0.042	0.12	1370
270	—	—	—	—	—	8x20	G5	0.041	0.13	1250	10x20	H5	0.030	0.090	1580
330	10x12.5	H3	0.053	0.16	1030	10x16	H4	0.038	0.12	1430	10x25	H6	0.028	0.085	1870
470	10x16	H4	0.038	0.12	1430	10x20	H5	0.023	0.069	1820	12.5x20	I 5	0.027	0.068	2050
560	—	—	—	—	—	10x25	H6	0.022	0.066	2150	12.5x25	I 6	0.023	0.059	2410
680	10x20	H5	0.023	0.069	1820	12.5x20	I 5	0.021	0.053	2360	16x20	J 5	0.023	0.059	2730
820	10x25	H6	0.022	0.066	2150	—	—	—	—	—	16x25	J 6	0.021	0.056	3010
1000	12.5x20	I 5	0.021	0.053	2360	12.5x25	I 6	0.018	0.045	2770	16x25	J 6	0.021	0.056	3010
1200	—	—	—	—	—	16x20	J 5	0.018	0.045	3140	—	—	—	—	—
1500	12.5x25	I 6	0.018	0.045	2770	16x25	J 6	0.016	0.043	3460	—	—	—	—	—
1800	16x20	J 5	0.018	0.045	3140	16x25	J 6	0.016	0.043	3460	—	—	—	—	—
2200	16x25	J 6	0.016	0.043	3460	—	—	—	—	—	—	—	—	—	—
2700	16x25	J 6	0.016	0.043	3460	—	—	—	—	—	—	—	—	—	—

(Note) Impedance : 20˚C, 100kHz Rated ripple current : 105˚C, 100kHz

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