105°C Use, Miniature, High-Reliability, Extra Low Impedance Capacitors

GREEN CAP | Low Impedance | 105°C 5000hours | Anti-cleaning solvent

- Higher ripple current and Lower impedance than RJB series.

Low impedance

RJF ⇦ RJB

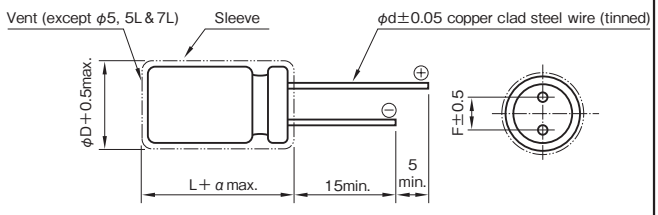
Marking color : White print on a black sleeve

Specifications

Item	Performance
Category temperature range (℃)	−40 to +105
Tolerance at rated capacitance (%)	±20 (20℃,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℃)
Tangent of loss angle (tanδ)	Rated voltage (V): 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 80 / 100 tanδ (max.): 0.22 / 0.19 / 0.16 / 0.14 / 0.12 / 0.10 / 0.09 / 0.09 / 0.08 0.02 is added to every 1000µF increase over 1000µF. (20℃,120Hz)
Characteristics at high and low temperature	Rated voltage (V): 6.3 / 10 / 16 / 25 / 35 / 50 / 63 / 80 / 100 Impedance ratio (max.) Z−25℃/Z+20℃: 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 Impedance ratio (max.) Z−40℃/Z+20℃: 3 / 3 / 3 / 3 / 3 / 3 / 3 / 3 / 3 (120Hz)
Endurance (105℃) (Applied ripple current)	Test time: 5L & 7L : 1000 hours; φ5 & φ6.3 : 2000 hours (63 to 100WV:5000 hours); φ8 & φ10 : 3000 hours (63 to 100WV:7000 hours); φ12.5 to φ18 : 5000 hours (63 to 100WV:10000 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℃)	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



11.5L or more

φD	5	6.3	8	10	12.5	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8
α	1.0	1.0	1.0	2.0	2.0	2.0	2.0

5L, 7L

φD	4	5	6.3	8
F	1.5	2.0	2.5	3.5
φd	0.45	0.45	0.45	0.45
α	1.0	1.0	1.0	1.0

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	0.94	1
470 to 1800	0.60	0.87	0.95	1
2200 to 3900	0.75	0.90	0.95	1
4700 to 6800	0.85	0.95	0.98	1

Part numbering system (example : 10V1000µF)

RJF	—	10	V	102	M	H4	# —	⬚
Series code		Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol		Taping(Forming) symbol

- The standard ratings are described on the next page.

NOTE : Design, Specifications are subject to change without notice.
It is recommended that you shall obtain technical specifications from ELNA to ensure that the component is suitable for your use.

Standard Ratings

Rated voltage (V) / Item / Rated capacitance (μF)	6.3					10					16				
	Case	Casing symbol	Impedance (Ω max.)		Rated ripple current	Case	Casing symbol	Impedance (Ω max.)		Rated ripple current	Case	Casing symbol	Impedance (Ω max.)		Rated ripple current
	φD×L (mm)		20℃	−10℃	(mArms)	φD×L (mm)		20℃	−10℃	(mArms)	φD×L (mm)		20℃	−10℃	(mArms)
18	—	—	—	—	—	—	—	—	—	—	4×7	D1	0.92	2.8	130
27	—	—	—	—	—	4×7	D1	0.89	2.7	130	6.3×5	F0	0.30	0.95	210
33	—	—	—	—	—	—	—	—	—	—	5×7	E1	0.45	1.4	210
											6.3×5	F0	0.30	0.95	210
39	4×7	D1	0.85	2.6	130	—	—	—	—	—	—	—	—	—	—
47	—	—	—	—	—	6.3×5	F0	0.29	0.93	210	—	—	—	—	—
56	—	—	—	—	—	5×7	E1	0.44	1.4	210	5×11.5	E3	0.22	0.80	345
68	5×7	E1	0.43	1.3	210	—	—	—	—	—	6.3×7	F1	0.24	0.72	300
100	6.3×5	F0	0.28	0.91	210	5×11.5	E3	0.22	0.8	345	—	—	—	—	—
120	—	—	—	—	—	6.3×7	F1	0.23	0.69	300	8×7	G1	0.15	0.45	380
											6.3×11.5	F3	0.094	0.35	540
150	5×11.5	E3	0.22	0.80	345	—	—	—	—	—	—	—	—	—	—
	6.3×7	F1	0.23	0.69	300										
180	—	—	—	—	—	8×7	G1	0.15	0.45	380	—	—	—	—	—
220	8×7	G1	0.15	0.45	380	6.3×11.5	F3	0.094	0.35	540	—	—	—	—	—
330	6.3×11.5	F3	0.094	0.35	540	—	—	—	—	—	8×12	G3	0.056	0.19	945
470	—	—	—	—	—	8×12	G3	0.056	0.19	945	8×15	G4	0.045	0.15	1250
560	8×12	G3	0.056	0.19	945	—	—	—	—	—	10×16	H4	0.028	0.10	1760
680	—	—	—	—	—	10×12.5	H3	0.039	0.14	1330	—	—	—	—	—
820	8×15	G4	0.045	0.15	1250	—	—	—	—	—	—	—	—	—	—
1000	10×12.5	H3	0.039	0.14	1330	10×16	H4	0.028	0.10	1760	10×20	H5	0.020	0.060	1960
1200	10×16	H4	0.028	0.10	1760	10×20	H5	0.020	0.060	1960	10×25	H6	0.018	0.054	2250
1500	10×20	H5	0.020	0.060	1960	10×25	H6	0.018	0.054	2250	12.5×20	I5	0.017	0.043	2480
2200	10×25	H6	0.018	0.054	2250	12.5×20	I5	0.017	0.043	2480	12.5×25	I6	0.015	0.038	2900
2700	—	—	—	—	—	—	—	—	—	—	16×20	J5	0.015	0.038	3250
3300	12.5×20	I5	0.017	0.043	2480	12.5×25	I6	0.015	0.038	2900	16×25	J6	0.013	0.035	3630
3900	12.5×25	I6	0.015	0.038	2900	16×20	J5	0.015	0.038	3250	16×25	J6	0.013	0.035	3630
4700	12.5×30	I7	0.013	0.033	3450	16×25	J6	0.013	0.035	3630	—	—	—	—	—
5600	16×20	J5	0.015	0.038	3570	16×25	J6	0.013	0.035	3630	—	—	—	—	—
6800	16×25	J6	0.013	0.035	3630	—	—	—	—	—	—	—	—	—	—

Rated voltage (V) / Item / Rated capacitance (μF)	25					35					50				
	Case	Casing symbol	Impedance (Ω max.)		Rated ripple current	Case	Casing symbol	Impedance (Ω max.)		Rated ripple current	Case	Casing symbol	Impedance (Ω max.)		Rated ripple current
	φD×L (mm)		20℃	−10℃	(mArms)	φD×L (mm)		20℃	−10℃	(mArms)	φD×L (mm)		20℃	−10℃	(mArms)
5.6	—	—	—	—	—	—	—	—	—	—	4×7	D1	1.0	3.0	130
10	5×5	E0	0.61	1.5	130	5×5	E0	0.63	1.5	130	5×7	E1	0.50	1.5	210
						4×7	D1	0.96	2.9	130					
15	4×7	D1	0.94	2.9	130	—	—	—	—	—	—	—	—	—	—
18	—	—	—	—	—	5×7	E1	0.47	1.5	210	—	—	—	—	—
22	6.3×5	F0	0.31	0.97	210	6.3×5	F0	0.32	1.0	210	6.3×7	F1	0.26	0.78	300
											5×11.5	E3	0.34	1.18	238
27	5×7	E1	0.46	1.4	210	—	—	—	—	—	—	—	—	—	—
33	—	—	—	—	—	5×11.5	E3	0.22	0.80	345	8×7	G1	0.17	0.51	380
39	—	—	—	—	—	6.3×7	F1	0.25	0.75	300	—	—	—	—	—
47	5×11.5	E3	0.22	0.80	345	—	—	—	—	—	—	—	—	—	—
56	6.3×7	F1	0.24	0.72	300	8×7	G1	0.16	0.48	380	6.3×11.5	F3	0.14	0.50	385
						6.3×11.5	F3	0.094	0.35	540					
100	8×7	G1	0.15	0.45	380	—	—	—	—	—	8×12	G3	0.074	0.22	724
	6.3×11.5	F3	0.13	0.41	405										
120	—	—	—	—	—	—	—	—	—	—	8×15	G4	0.061	0.18	950
150	—	—	—	—	—	8×12	G3	0.056	0.19	945	10×12.5	H3	0.061	0.18	979
180	—	—	—	—	—	—	—	—	—	—	8×20	G5	0.046	0.14	1190
220	8×12	G3	0.056	0.19	945	10×12.5	H3	0.039	0.14	1330	10×16	H4	0.042	0.12	1370
270	—	—	—	—	—	8×20	G5	0.029	0.11	1500	10×20	H5	0.030	0.090	1580
330	10×12.5	H3	0.039	0.14	1330	10×16	H4	0.028	0.10	1760	10×25	H6	0.028	0.085	1870
470	10×16	H4	0.028	0.10	1760	10×20	H5	0.020	0.060	1960	12.5×20	I5	0.027	0.068	2050
560	—	—	—	—	—	10×25	H6	0.018	0.054	2250	12.5×25	I6	0.023	0.059	2410
680	10×20	H5	0.020	0.060	1960	12.5×20	I5	0.017	0.043	2480	16×20	J5	0.023	0.059	2730
820	10×25	H6	0.018	0.054	2250	—	—	—	—	—	16×20	J5	0.023	0.059	2730
1000	12.5×20	I5	0.017	0.043	2480	12.5×25	I6	0.015	0.038	2900	16×25	J6	0.021	0.056	3010
1200	—	—	—	—	—	16×20	J5	0.015	0.038	3250	—	—	—	—	—
1500	12.5×25	I6	0.015	0.038	2900	16×25	J6	0.013	0.035	3630	—	—	—	—	—
1800	16×20	J5	0.015	0.038	3250	16×25	J6	0.013	0.035	3630	—	—	—	—	—
2200	16×25	J6	0.013	0.035	3630	—	—	—	—	—	—	—	—	—	—
2700	16×25	J6	0.013	0.035	3630	—	—	—	—	—	—	—	—	—	—

(Note) Rated ripple current : 105℃, 100kHz ; Impedance : 100kHz

Standard Ratings

Rated voltage (V) / Item / Rated capacitance (μF)	63					80					100				
	Case φDxL (mm)	Casing symbol	Impedance (Ω max.) 20℃	Impedance (Ω max.) -10℃	Rated ripple current (mArms)	Case φDxL (mm)	Casing symbol	Impedance (Ω max.) 20℃	Impedance (Ω max.) -10℃	Rated ripple current (mArms)	Case φDxL (mm)	Casing symbol	Impedance (Ω max.) 20℃	Impedance (Ω max.) -10℃	Rated ripple current (mArms)
6.8	–	–	–	–	–	—	–	–	–	–	5 × 11.5	E3	1.4	5.6	125
15	5 × 11.5	E3	0.88	3.5	165	—	–	–	–	–	6.3 × 11.5	F3	0.57	2.3	205
27	–	–	–	–	–	—	–	–	–	–	8 × 12	G3	0.36	1.4	335
33	6.3 × 11.5	F3	0.35	1.4	265	—	–	–	–	–	—	–	–	–	–
39	–	–	–	–	–	—	–	–	–	–	8 × 15	G4	0.25	1.0	450
47	–	–	–	–	–	—	–	–	–	–	10 × 12.5	H3	0.17	0.66	480
56	8 × 12	G3	0.22	0.88	500	—	–	–	–	–	8 × 20	G5	0.19	0.76	565
68	–	–	–	–	–	10 × 12.5	H3	0.17	0.66	480	10 × 16	H4	0.11	0.47	600
82	10 × 12.5	H3	0.11	0.44	690	–	–	–	–	–	10 × 20	H5	0.084	0.34	800
100	–	–	–	–	–	10 × 16	H4	0.11	0.47	600	12.5 × 15	I4	0.11	0.34	750
120	8 × 20	G5	0.12	0.48	820	10 × 20	H5	0.084	0.34	800	10 × 25	H6	0.069	0.28	900
	10 × 16	H4	0.076	0.31	950										
150	–	–	–	–	–	10 × 25	H6	0.069	0.28	900	12.5 × 20	I5	0.062	0.18	1100
180	10 × 20	H5	0.056	0.23	1150	–	–	–	–	–	—	–	–	–	–
220	10 × 25	H6	0.046	0.19	1350	12.5 × 20	I5	0.062	0.18	1100	16 × 20	J5	0.048	0.15	1350
270	12.5 × 20	I5	0.041	0.13	1500	–	–	–	–	–	12.5 × 30	I7	0.042	0.13	1500
330	–	–	–	–	–	12.5 × 25	I6	0.047	0.14	1250	12.5 × 35	I8	0.036	0.11	1650
						16 × 20	J5	0.048	0.15	1350	16 × 25	J6	0.038	0.12	1700
											18 × 20	K5	0.045	0.14	1500
390	12.5 × 25	I6	0.031	0.093	1900	12.5 × 30	I7	0.042	0.13	1500	12.5 × 40	I9	0.032	0.095	1800
470	12.5 × 30	I7	0.028	0.084	2300	12.5 × 35	I8	0.036	0.11	1650	16 × 31.5	J7	0.032	0.095	1850
	16 × 20	J5	0.032	0.096	2000	16 × 25	J6	0.038	0.12	1700	18 × 25	K6	0.036	0.11	1750
						18 × 20	K5	0.045	0.14	1500					
560	12.5 × 35	I8	0.024	0.070	2500	–	–	–	–	–	16 × 35.5	J8	0.029	0.086	2000
											18 × 31.5	K7	0.030	0.090	1900
680	12.5 × 40	I9	0.021	0.063	2800	16 × 31.5	J7	0.032	0.095	1850	16 × 40	J9	0.027	0.081	2480
	16 × 25	J6	0.025	0.075	2600						18 × 35.5	K8	0.027	0.081	2200
	18 × 20	K5	0.030	0.090	2500										
820	16 × 31.5	J7	0.021	0.063	2850	16 × 35.5	J8	0.029	0.086	2000	18 × 40	K9	0.026	0.077	2700
	18 × 25	K6	0.024	0.072	2800	18 × 31.5	K7	0.030	0.090	1900					
1000	16 × 35.5	J8	0.019	0.057	2900	–	–	–	–	–	—	–	–	–	–
1200	16 × 40	J9	0.018	0.054	3400	18 × 40	K9	0.026	0.077	2700	—	–	–	–	–
	18 × 31.5	K7	0.020	0.060	3300										
1500	18 × 35.5	K8	0.018	0.054	3400	—	–	–	–	–	—	–	–	–	–
1800	18 × 40	K9	0.017	0.051	3500	—	–	–	–	–	—	–	–	–	–

(Note) Rated ripple current : 105℃ , 100kHz ; Impedance : 100kHz