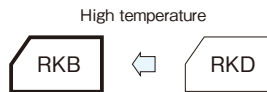


ELNA**Miniature Aluminum Electrolytic Capacitors RKB series**

Code in front of series have been extracted from product code, which describes the segment of products, such as type and features.

- Guaranteed 3000 hours at 135°C. ($\phi 10$, 63 to 80V : 2000 hours)
- High temperature guaranteed and low ESR series for automotive.
- Environmental : GREEN CAP™, RoHS compliance.



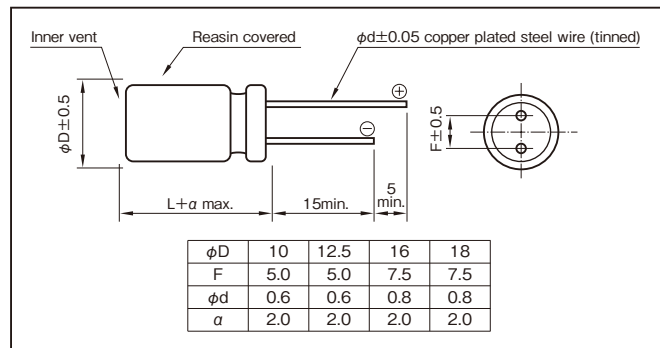
Marking color : Black print

Specifications

Item	Performance								
Category temperature range (°C)	-40 to +135								
Tolerance at rated capacitance (%)	±20 (20°C,120Hz)								
Leakage current (μA) (max.)	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)		10	16	25	35	50	63	80
	tanδ (max.)		0.20	0.16	0.14	0.12	0.10	0.10	0.08
	0.02 is added to every 1000μF increase over 1000μF. (20°C,120Hz)								
Characteristics at high and low temperature	Rated voltage (V)		10	16	25	35	50	63	80
	Impedance ratio (max.)	Z-40°C/Z+20°C	4	3	3	3	3	3	3
Endurance (135°C) (Applied ripple current)	(120Hz)								
	Test time		10V to 50V : 3000 hours (φ10 : 2000 hours) 63V to 80V : 2000 hours						
	Leakage current		The initial specified value or less						
	Percentage of capacitance change		Within ±30% of initial value						
	Tangent of the loss angle		300% or less of the initial specified value						
Shelf life (135°C)	Test time : 1000hours ; other items are same as the endurance. Voltage application treatment : According to JIS C5101-4 4.1								
Applicable standards	JIS C5101 - 1, - 4 (IEC 60384 - 1, - 4)								

Outline Drawing

Unit : mm

**Coefficient of Frequency for Rated Ripple Current**

Rated capacitance (μF) \ Frequency (Hz)	50 · 60	120	1k	10k · 100k
220 to 330	0.55	0.65	0.85	1
470 to 1000	0.70	0.75	0.90	1
1200 to 6800	0.80	0.85	0.95	1

Product code system : 10V1000μF
(*For automotive: powertrain, safety)

RA*	RKB	102	M	1L	F20	300	T
Category code	Series code	capacitance code	Cap tol. code	Voltage code	Size code	Lead-forming and packing code	Additional code

- For details, refer to the various "Product Code System" pages.
 - Lead-forming and packing code on this page are for lead long and standard packing products.
- For standard packing, please refer to the "PACKING" 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.

Code in front of series have been extracted from product code, which describes the segment of products, such as type and features.

Standard Ratings

Rated voltage (V) Rated capacitance (μF) Item	10 (1L)				16 (1E)				25 (1T)				35 (1G)			
	Case φD × L (mm)	Size code	ESR (Ω max.)	Rated ripple current (mA rms)	Case φD × L (mm)	Size code	ESR (Ω max.)	Rated ripple current (mA rms)	Case φD × L (mm)	Size code	ESR (Ω max.)	Rated ripple current (mA rms)	Case φD × L (mm)	Size code	ESR (Ω max.)	Rated ripple current (mA rms)
220	—	—	—	—	10×12.5	F12	0.098	725	10×12.5	F12	0.098	725	10×12.5	F12	0.098	725
													10×16	F16	0.075	951
330	10×12.5	F12	0.098	725	10×12.5	F12	0.098	725	10×12.5	F12	0.098	725	10×16	F16	0.075	951
									10×16	F16	0.075	951	10×20	F20	0.057	1130
470	10×12.5	F12	0.098	725	10×16	F16	0.075	951	10×16	F16	0.075	951	10×20	F20	0.057	1130
									10×20	F20	0.057	1130	12.5×20	G20	0.040	1550
1000	10×20	F20	0.057	1130	10×20	F20	0.057	1130	12.5×20	G20	0.040	1550	12.5×25	G25	0.032	1880
	12.5×15	G15	0.059	1130	12.5×20	G20	0.040	1550	12.5×25	G25	0.032	1880	12.5×30	G30	0.029	2160
1200	—	—	—	—	—	—	—	—	12.5×20	G20	0.040	1550	16×20	J20	0.032	2020
1500	—	—	—	—	—	—	—	—	—	—	—	—	12.5×35	G35	0.023	2580
													16×31.5	J31	0.020	3040
1800	—	—	—	—	—	—	—	—	12.5×25	G25	0.032	1880	12.5×40	G40	0.020	2920
									16×20	J20	0.032	2020	16×25	J25	0.024	2550
2200	12.5×25	G25	0.032	1880	12.5×25	G25	0.032	1880	12.5×30	G30	0.029	2160	16×31.5	J31	0.020	3040
	16×20	J20	0.032	2020	16×25	J25	0.024	2550	16×25	J25	0.024	2550	16×35.5	J35	0.019	3280
2700	—	—	—	—	—	—	—	—	12.5×35	G35	0.023	2580	16×35.5	J35	0.019	3280
									16×25	J25	0.024	2550	18×31.5	K31	0.018	3410
3300	16×25	J25	0.024	2550	16×31.5	J31	0.020	3040	12.5×40	G40	0.020	2920	16×40	J40	0.017	3630
	18×20	K20	0.029	2320	18×25	K25	0.022	2880	16×31.5	J31	0.020	3040	18×35.5	K35	0.017	3710
4700	16×31.5	J31	0.020	3040	16×35.5	J35	0.019	3280	16×35.5	J35	0.019	3280	18×40	K40	0.016	4000
	18×25	K25	0.022	2880	18×31.5	K31	0.018	3410	18×31.5	K31	0.018	3410	—	—	—	—
5600	—	—	—	—	—	—	—	—	16×40	J40	0.017	3630	—	—	—	—
6800	—	—	—	—	—	—	—	—	18×40	K40	0.016	4000	—	—	—	—

Rated voltage (V) Rated capacitance (μF) Item	50 (1U)				63 (4E)				80 (1R)			
	Case φD × L (mm)	Size code	ESR (Ω max.)	Rated ripple current (mA rms)	Case φD × L (mm)	Size code	ESR (Ω max.)	Rated ripple current (mA rms)	Case φD × L (mm)	Size code	ESR (Ω max.)	Rated ripple current (mA rms)
220	10×20	F20	0.081	930	—	—	—	—	—	—	—	—
330	—	—	—	—	—	—	—	—	16×20	J20	0.19	1100
470	12.5×20	G20	0.057	1170	16×20	J20	0.19	1100	16×25	J25	0.11	1370
560	—	—	—	—	—	—	—	—	18×25	K25	0.094	1450
820	12.5×30	G30	0.038	1680	16×31.5	J31	0.080	1790	18×35.5	K35	0.062	2100
1000	16×25	J25	0.031	1710	16×35.5	J35	0.066	2010	18×40	K40	0.051	2350
1800	18×35.5	K31	0.025	2670	18×40	K40	0.051	2350	—	—	—	—
2200	18×35.5	K35	0.022	2900	—	—	—	—	—	—	—	—

(Note) Rated ripple current : 135°C , 100kHz ; ESR : 20°C , 100kHz