

135°C Use, Miniature, Low ESR Capacitors

GREEN CAP

Low ESR

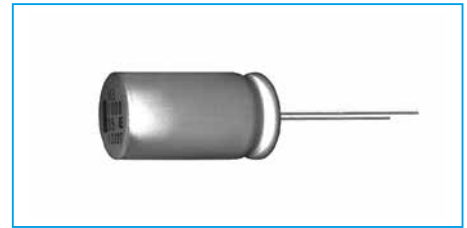
135°C 3000hours

Anti-cleaning solvent

- High temperature guaranteed and low ESR series for automotive.
- Guarantees 3000 hours at 135°C.
($\phi 10$, 63V to 100V : 2000 hours)



High temperature



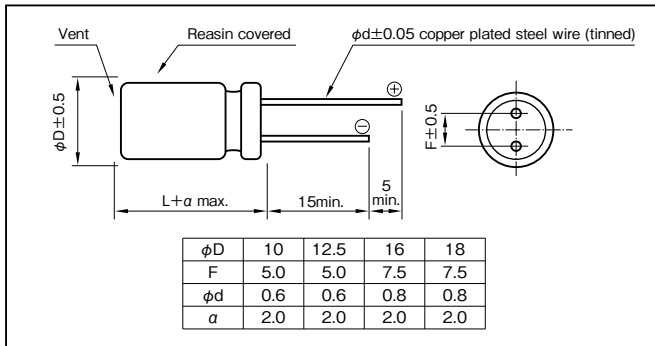
Marking color : Black print

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)
	tanδ (max.)
Characteristics at high and low temperature	Rated voltage (V)
	Impedance ratio (max.)
Endurance (135°C) (Applied ripple current)	Test time
	Leakage current
	Percentage of capacitance change
	Tangent of the loss angle
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		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.

Standard Ratings

Rated voltage (V)	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					
1200	—	—	—	—	—	—	—	—	12.5×20	G20	0.040	1550	12.5×30	G30	0.029	2160	
													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)	Item	50 (1U)				63 (4E)				80 (1R)				100 (1H)			
		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	—	10×20	F20	0.081	930	—	—	—	—	—	—	—	—	—	—	—	—
330	—	—	—	—	—	—	—	—	—	16×20	J20	0.19	1100	16×25	J25	0.12	1220
470	—	12.5×20	G20	0.057	1170	16×20	J20	0.19	1100	16×25	J25	0.11	1370	16×35.5	J35	0.077	1860
560	—	—	—	—	—	—	—	—	—	18×25	K25	0.094	1450	16×40	J40	0.069	2100
820	—	12.5×30	G30	0.038	1680	16×31.5	J31	0.080	1790	18×35.5	K35	0.062	2100	18×40	K40	0.059	2290
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