ELNA

Miniature Aluminum Electrolytic Capacitors RKD series

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

- Low ESR capacitor.
- Guaranteed 5000 hours at 125℃.
  (2000 hours : ϕ8, 3000 hours; ϕ10)
  (4000 hours : 63V to 80V - ϕ16x20L)
- Environmental : GREEN CAP™ , RoHS compliance.

Miniaturized, Low ESR

RKD ⇦ RK1

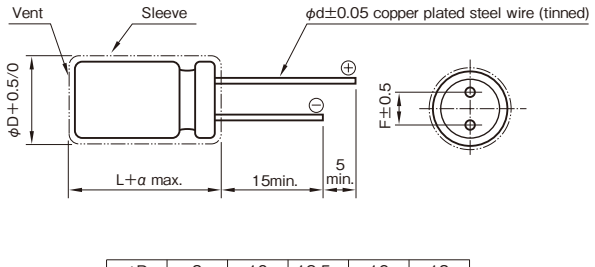
Marking color : White print on a black sleeve

Specifications

Item	Performance
Category temperature range (℃)	−40 to +125
Tolerance at rated capacitance (%)	±20 (20℃,120Hz)
Leakage current (μA) (max.)	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): 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℃,120Hz)
Characteristics at high and low temperature	Rated voltage (V): 10 / 16 / 25 / 35 / 50 / 63 / 80 Impedance ratio (max.) Z−40℃/Z+20℃: 4 / 3 / 3 / 3 / 3 / 3 / 3 (120Hz)
Endurance (125℃) (Applied ripple current)	Test time: 5000 hours (2000 hours: ϕ8, 3000h: ϕ10) (4000 hours: 63V to 80V - ϕ16x20L) 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 (125℃)	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



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

(Note) Whisker preventive structure is possible.

Coefficient of Frequency for Rated Ripple Current

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

Product code system : 10V1000μF (*For general product)

RS*	RKD	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

・If it is whisker preventive structure, should change "T" into "G".
・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.
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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) / Item / Rated capacitance (μF)	10 (1L)				16 (1E)				25 (1T)				35 (1G)			
	Case φD × L (mm)	Size code	ESR (Ω max.)	Rated ripple current (mArms)	Case φD × L (mm)	Size code	ESR (Ω max.)	Rated ripple current (mArms)	Case φD × L (mm)	Size code	ESR (Ω max.)	Rated ripple current (mArms)	Case φD × L (mm)	Size code	ESR (Ω max.)	Rated ripple current (mArms)
100	—	—	—	—	8×12	E12	0.153	501	8×12	E12	0.153	501	8×12	E12	0.153	501
220	8×12	E12	0.153	501	8×12	E12	0.153	501	8×12	E12	0.153	501	10×12.5	F12	0.098	732
					10×12.5	F12	0.098	732	10×12.5	F12	0.098	732	10×16	F16	0.075	953
330	8×12	E12	0.153	501	8×12	E12	0.153	501	10×12.5	F12	0.098	732	10×16	F16	0.075	953
	10×12.5	F12	0.098	732	10×12.5	F12	0.098	732	10×16	F16	0.075	953	10×20	F20	0.057	1140
470	10×12.5	F12	0.098	732	10×16	F16	0.075	953	10×16	F16	0.075	953	10×20	F20	0.057	1140
													12.5×20	G20	0.040	1820
									10×20	F20	0.057	1140	16×16	J16	0.044	1930
1000	10×20	F20	0.057	1140	10×20	F20	0.057	1140	12.5×20	G20	0.040	1820	12.5×25	G25	0.032	2400
	12.5×15	G15	0.059	1380	12.5×20	G20	0.040	1820	12.5×25	G25	0.032	2400	16×25	J25	0.024	3100
					16×16	J16	0.044	1930	16×16	J16	0.044	1930	18×20	K20	0.029	2490
1200	—	—	—	—	—	—	—	—	12.5×20	G20	0.040	1820	12.5×30	G30	0.029	2560
													16×20	J20	0.032	2280
1500	—	—	—	—	—	—	—	—	—	—	—	—	12.5×35	G35	0.023	2970
													16×31.5	J31	0.020	3160
													18×25	K25	0.022	3200
1800	—	—	—	—	—	—	—	—	12.5×25	G25	0.032	2400	12.5×40	G40	0.020	3600
									16×20	J20	0.032	2280	16×25	J25	0.024	3100
2200	12.5×25	G25	0.032	2400	12.5×25	G25	0.032	2400	12.5×30	G30	0.029	2560	16×31.5	J31	0.020	3160
	16×20	J20	0.032	2280	16×25	J25	0.024	3100	16×25	J25	0.024	3100	16×35.5	J35	0.019	3590
	18×16	K16	0.041	2170	18×20	K20	0.029	2490	18×20	K20	0.029	2490	18×25	K25	0.022	3200
2700	—	—	—	—	—	—	—	—	12.5×35	G35	0.023	2970	16×35.5	J35	0.019	3590
									16×25	J25	0.024	3100				
									18×20	K20	0.029	2490	18×31.5	K31	0.018	3410
3300	16×25	J25	0.024	3100	16×31.5	J31	0.020	3160	12.5×40	G40	0.020	3600	16×40	J40	0.017	4300
	18×20	K20	0.029	2490	18×25	K25	0.022	3200	16×31.5	J31	0.020	3160	18×35.5	K35	0.017	4200
3900	—	—	—	—	—	—	—	—	16×35.5	J35	0.019	3590	—	—	—	—
									18×25	K25	0.022	3200				
4700	16×31.5	J31	0.020	3160	16×35.5	J35	0.019	3590	18×35.5	K35	0.017	4200	18×40	K40	0.016	4600
	18×25	K25	0.022	3200	18×31.5	K31	0.018	3410								
5600	—	—	—	—	—	—	—	—	16×40	J40	0.017	4300	—	—	—	—
									18×35.5	K35	0.017	4200				
6800	—	—	—	—	—	—	—	—	18×40	K40	0.016	4600	—	—	—	—

Rated voltage (V) / Item / Rated capacitance (μF)	50 (1U)				63 (4E)				80 (1R)			
	Case φD × L (mm)	Size code	ESR (Ω max.)	Rated ripple current (mArms)	Case φD × L (mm)	Size code	ESR (Ω max.)	Rated ripple current (mArms)	Case φD × L (mm)	Size code	ESR (Ω max.)	Rated ripple current (mArms)
220	10×20	F20	0.081	960	—	—	—	—	—	—	—	—
330	—	—	—	—	—	—	—	—	16×20	J20	0.19	1200
470	12.5×20	G20	0.057	1500	—	—	—	—	16×25	J25	0.11	1530
560	—	—	—	—	—	—	—	—	18×25	K25	0.094	1640
820	12.5×30	G30	0.038	2150	16×31.5	J31	0.08	1910	18×35.5	K35	0.062	2180
1000	16×25	J25	0.031	2620	16×35.5	J35	0.066	2110	18×40	K40	0.051	2470
1800	18×31.5	K31	0.025	3140	18×40	K40	0.051	2470	—	—	—	—
2200	18×35.5	K35	0.022	3510	—	—	—	—	—	—	—	—

(Note) Rated ripple current : 125℃ , 100kHz ; ESR : 20℃ , 100kHz

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