Panasonic
INDUSTRY

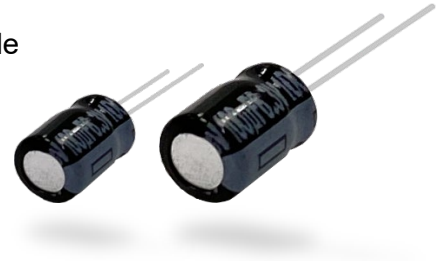
Aluminum Electrolytic Capacitors

Radial Lead Type

KA-A series

Low Profile

KA
7 mm hegiht
↑
M



Features

- Endurance : 85 ℃ 1000 h
- 7 mm height
- RoHS compliant

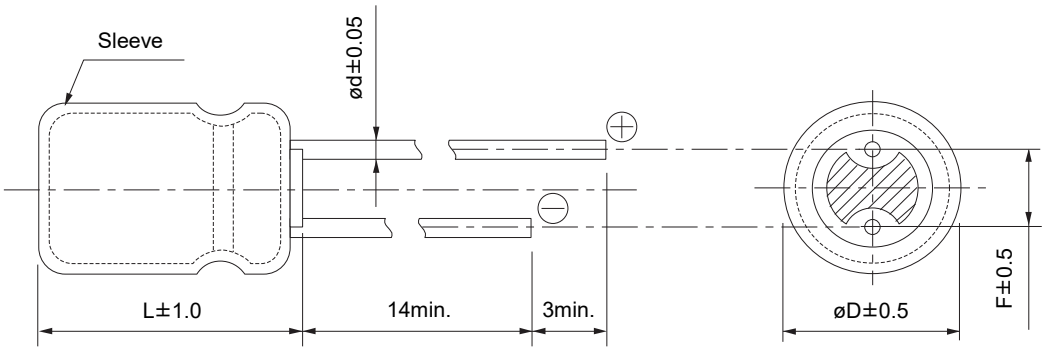
Specifications

Category temp. range	−40 ℃ to +85 ℃	
Rated voltage range	4 V to 50 V	
Capacitance range	2.2 µF to 470 µF	
Capacitance tolerance	±20 % (120 Hz / +20℃)	
Leakage current	I ≦ 0.01 CV or 3 (µA) After 2 minutes (Whichever is greater)	
Dissipation factor (tan δ)	Please see the attached characteristics list	
Endurance	After applying rated working voltage for 1000 h at +85 ℃±2 ℃ when the capacitors are restored to 20 ℃, capacitors shall meet the following limits.	
	Capacitance change	Within ±20 % of the initial value
	Dissipation factor (tan δ)	≦ 200 % of the initial limit
	DC leakage current	Within the initial limit
Shelf life	After storage for 1000 h at +85 ℃±2 ℃ with no voltage applied and then being stabilized at +20 ℃, capacitors shall meet the limits specified in endurance. (With voltage treatment)	

Frequency correction factor for ripple current

Freq. (Hz) / Cap. (µF)	50, 60	120	1 k	10 k to
2.2 to 470	0.70	1.00	1.30	1.70

Dimensions



Unit : mm

øD	4.0	5.0	6.3	8.0
ød	0.45	0.45	0.45	0.45
F	1.5	2.0	2.5	2.5

Characteristics list

Endurance : 85 ℃ 1000 h

Rated voltage (V)	Capacitance (±20 %) (μF)	Case size (mm)		Specification		Lead length (mm)				Part No.	Min. Packaging Q'ty (PCS)	
							Lead space					
		øD	L	Ripple current*1 (mA rms)	tan δ*2	Lead dia. (ød)	Straight	Taping ✻B	Taping ✻i		Strai-ght leads	Taping
4	47	4.0	7.0	34	0.35	0.45	1.5	5.0	2.5	ECEA0GKA470( )	200	2000
	100	5.0	7.0	61	0.35	0.45	2.0	5.0	2.5	ECEA0GKA101( )	200	2000
	220	6.3	7.0	82	0.35	0.45	2.5	5.0	2.5	ECEA0GKA221( )	200	2000
	330	8.0	7.0	110	0.35	0.45	2.5	—	2.5	ECEA0GKA331( )	200	1000
		8.0	7.0	110	0.35	0.45	—	5.0	—	ECEA0GKA331Q	—	1000
	470	8.0	7.0	140	0.35	0.45	2.5	—	2.5	ECEA0GKA471( )	200	1000
		8.0	7.0	140	0.35	0.45	—	5.0	—	ECEA0GKA471Q	—	1000
6.3	47	4.0	7.0	46	0.24	0.45	1.5	5.0	2.5	ECEA0JKA470( )	200	2000
	100	5.0	7.0	71	0.24	0.45	2.0	5.0	2.5	ECEA0JKA101( )	200	2000
	220	6.3	7.0	103	0.24	0.45	2.5	5.0	2.5	ECEA0JKA221( )	200	2000
	330	8.0	7.0	130	0.24	0.45	2.5	—	2.5	ECEA0JKA331( )	200	1000
		8.0	7.0	130	0.24	0.45	—	5.0	—	ECEA0JKA331Q	—	1000
10	33	4.0	7.0	43	0.20	0.45	1.5	5.0	2.5	ECEA1AKA330( )	200	2000
	100	6.3	7.0	80	0.20	0.45	2.5	5.0	2.5	ECEA1AKA101( )	200	2000
	220	8.0	7.0	120	0.20	0.45	2.5	—	2.5	ECEA1AKA221( )	200	1000
		8.0	7.0	120	0.20	0.45	—	5.0	—	ECEA1AKA221Q	—	1000
16	10	4.0	7.0	28	0.16	0.45	1.5	5.0	2.5	ECEA1CKA100( )	200	2000
	22	4.0	7.0	39	0.16	0.45	1.5	5.0	2.5	ECEA1CKA220( )	200	2000
	33	5.0	7.0	60	0.16	0.45	2.0	5.0	2.5	ECEA1CKA330( )	200	2000
	47	5.0	7.0	70	0.16	0.45	2.0	5.0	2.5	ECEA1CKA470( )	200	2000
	100	6.3	7.0	91	0.16	0.45	2.5	5.0	2.5	ECEA1CKA101( )	200	2000
25	10	4.0	7.0	28	0.14	0.45	1.5	5.0	2.5	ECEA1EKA100( )	200	2000
	22	5.0	7.0	55	0.14	0.45	2.0	5.0	2.5	ECEA1EKA220( )	200	2000
	33	6.3	7.0	65	0.14	0.45	2.5	5.0	2.5	ECEA1EKA330( )	200	2000
	47	6.3	7.0	70	0.14	0.45	2.5	5.0	2.5	ECEA1EKA470( )	200	2000
35	10	5.0	7.0	30	0.12	0.45	2.0	5.0	2.5	ECEA1VKA100( )	200	2000
	22	6.3	7.0	60	0.12	0.45	2.5	5.0	2.5	ECEA1VKA220( )	200	2000
	33	6.3	7.0	65	0.12	0.45	2.5	5.0	2.5	ECEA1VKA330( )	200	2000
	47	8.0	7.0	85	0.12	0.45	2.5	—	2.5	ECEA1VKA470( )	200	1000
		8.0	7.0	85	0.12	0.45	—	5.0	—	ECEA1VKA470Q	—	1000
50	2.2	4.0	7.0	16	0.10	0.45	1.5	5.0	2.5	ECEA1HKA2R2( )	200	2000
	3.3	4.0	7.0	18	0.10	0.45	1.5	5.0	2.5	ECEA1HKA3R3( )	200	2000
	4.7	4.0	7.0	23	0.10	0.45	1.5	5.0	2.5	ECEA1HKA4R7( )	200	2000
	10	5.0	7.0	35	0.10	0.45	2.0	5.0	2.5	ECEA1HKA100( )	200	2000
	22	6.3	7.0	60	0.10	0.45	2.5	5.0	2.5	ECEA1HKA220( )	200	2000
	33	8.0	7.0	75	0.10	0.45	2.5	—	2.5	ECEA1HKA330( )	200	1000
		8.0	7.0	75	0.10	0.45	—	5.0	—	ECEA1HKA330Q	—	1000

*1: Ripple current (120 Hz / +85 ℃)
*2: tan δ (120 Hz / +20 ℃)
・When requesting taped product, please put the letter "B" or "i" between the "( )".
Lead wire pitch ✻B=5 mm, i=2.5 mm.
・Please refer to the page of “Taping dimensions”.