

# Aluminum Electrolytic Capacitors

## Radial Lead Type

### KS-A (Bi-polar) series



#### Features

- Endurance : 85 °C 1000 h
- 5 mm height
- RoHS compliant

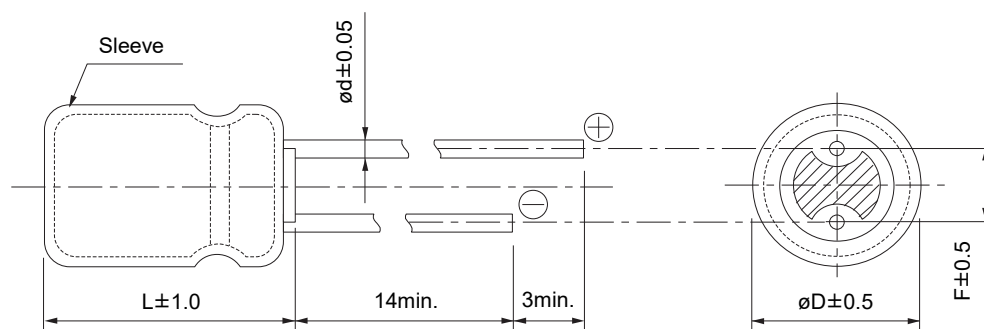
#### Specifications

Category temp. range	−40 °C to +85 °C	
Rated voltage range	6.3 V to 50 V	
Capacitance range	2.2 μF to 47 μF	
Capacitance tolerance	±20 % (120 Hz / +20°C)	
Leakage current	I ≤ 0.05 CV or 10 (μA) After 2 minutes (Whichever is greater)	
Dissipation factor (tan δ)	Please see the attached characteristics list	
Endurance	After 1000 h application of DC working voltage (500 h for each polarity) at +85 °C±2 °C, when the capacitors are restored to 20 °C, the 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 °C±2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in endurance. (With voltage treatment)	

#### Frequency correction factor for ripple current

Freq. (Hz)	50, 60	120	1 k	10 k to
Cap. (µF)				
2.2 to 47	0.70	1.00	1.30	1.70

#### Dimensions



Unit : mm			
øD	4	5	6.3
ød	0.45	0.45	0.45
F	1.5	2.0	2.5

## Characteristics list

Endurance : 85 °C 1000 h (500 h for each polarity)

Rated voltage (V)	Capacitance (±20 %) (μF)	Case size (mm)		Specification		Lead length (mm)				Part No.	Min. Packaging Q'ty (PCS)	
		øD	L	Ripple current * <sup>1</sup> (mA rms)	tan δ * <sup>2</sup>	Lead dia. (ød)	Lead space				Strai- ght leads	Taping
							Straight	Taping *B	Taping *i			
6.3	22	5.0	5.0	29	0.24	0.45	2.0	5.0	2.5	ECEA0JSN220( )	200	2000
	33	6.3	5.0	38	0.24	0.45	2.5	5.0	2.5	ECEA0JSN330( )	200	2000
	47	6.3	5.0	46	0.24	0.45	2.5	5.0	2.5	ECEA0JSN470( )	200	2000
10	10	4.0	5.0	25	0.20	0.45	1.5	5.0	2.5	ECEA1ASN100( )	200	2000
	22	6.3	5.0	35	0.20	0.45	2.5	5.0	2.5	ECEA1ASN220( )	200	2000
	33	6.3	5.0	43	0.20	0.45	2.5	5.0	2.5	ECEA1ASN330( )	200	2000
16	4.7	4.0	5.0	20	0.20	0.45	1.5	5.0	2.5	ECEA1CSN4R7( )	200	2000
	10	5.0	5.0	25	0.20	0.45	2.0	5.0	2.5	ECEA1CSN100( )	200	2000
	22	6.3	5.0	39	0.20	0.45	2.5	5.0	2.5	ECEA1CSN220( )	200	2000
25	3.3	5.0	5.0	18	0.20	0.45	2.0	5.0	2.5	ECEA1ESN3R3( )	200	2000
	4.7	5.0	5.0	21	0.20	0.45	2.0	5.0	2.5	ECEA1ESN4R7( )	200	2000
	10	6.3	5.0	28	0.20	0.45	2.5	5.0	2.5	ECEA1ESN100( )	200	2000
35	2.2	4.0	5.0	12	0.20	0.45	1.5	5.0	2.5	ECEA1VSN2R2( )	200	2000
50	2.2	5.0	5.0	16	0.20	0.45	2.0	5.0	2.5	ECEA1HSN2R2( )	200	2000

\*1: Ripple current (120 Hz / +85 °C)

\*2: tan δ (120 Hz / +20 °C)

• 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".