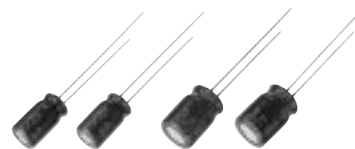


Radial Lead Type

Series: **SU(Bi-polar)** Type: **A**



■ Features

- Endurance : 85 °C 2000 h
- RoHS directive compliant

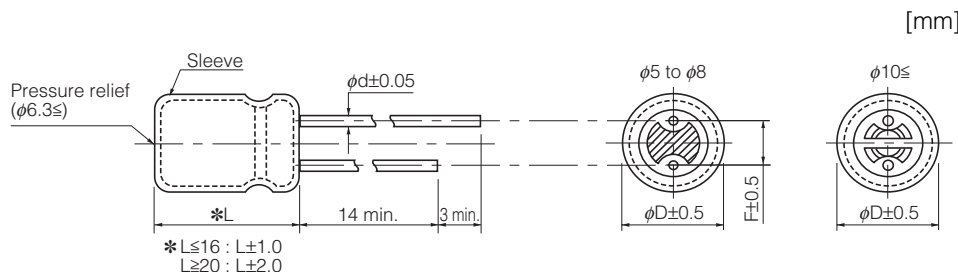
■ Specifications

Category Temp. Range	-40 °C to +85 °C		
Rated W.V. Range	6.3 V.DC to 50 V.DC		
Nominal Cap. Range	0.47 μF to 6800 μF		
Capacitance Tolerance	±20 % (120 Hz/+20 °C)		
DC Leakage Current	$I \leq 0.03 CV + 3$ (μA) After 5 minutes		
tan δ	Please see the attached standard products list.		
Endurance	After 2000 hours application of DC working voltage (1000 hours 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	± 20 % of initial measured value	
	tan δ	≤ 150 % of initial specified value	
	DC leakage current	≤ initial specified value	
Shelf Life	After storage for 1000 hours 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

	Frequency (Hz)			
	50, 60	120	1 k	10 k to
Correction factor	0.70	1.00	1.30	1.70

■ Dimensions in mm (not to scale)



(mm)

	5	6.3	8	10	12.5	16	18
Body Dia. φD	5	6.3	8	10	12.5	16	18
Lead Dia. φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8
Lead space F	2.0	2.5	3.5	5.0	5.0	7.5	7.5

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

01 Jun. 2011

■ Standard Products (Bi-polar)

W.V. (V)	Cap. (±20 %) (μF)	Case size		Specification		Lead Length				Part No.	Min. Packaging Qty	
		Dia. (mm)	Length (mm)	Ripple Current (120 Hz) (+85 °C) (mA r.m.s.)	tan δ (120 Hz) (+20 °C) (Ω)	Lead Dia. (mm)	Lead Space				Straight Leads (pcs)	Taping (pcs)
							Straight (mm)	Taping *B (mm)	Taping *i (mm)			
6.3	330	8	11.5	250	0.30	0.6	3.5	5.0		ECEA0JN331U()	200	1000
	470	10	12.5	310	0.30	0.6	5.0	5.0		ECEA0JN471X()	200	500
	1000	10	20	430	0.30	0.6	5.0	5.0		ECEA0JN102U()	200	500
	2200	12.5	25	660	0.32	0.6	5.0	5.0		ECEA0JN222U()	200	500
	3300	16	25	760	0.34	0.8	7.5	7.5		ECEA0JN332U()	100	250
	4700	16	31.5	1170	0.36	0.8	7.5			ECEA0JN472U	100	
	6800	18	35.5	1450	0.40	0.8	7.5			ECEA0JN682U	50	
10	47	5	11	90	0.25	0.5	2.0	5.0	2.5	ECEA1AN470U()	200	2000
	100	6.3	11.2	130	0.25	0.5	2.5	5.0	2.5	ECEA1AN101X()	200	2000
	220	8	11.5	200	0.25	0.6	3.5	5.0		ECEA1AN221U()	200	1000
	330	10	16	280	0.25	0.6	5.0	5.0		ECEA1AN331U()	200	500
	470	10	16	340	0.25	0.6	5.0	5.0		ECEA1AN471U()	200	500
	1000	12.5	20	470	0.25	0.6	5.0	5.0		ECEA1AN102X()	200	500
	2200	16	25	690	0.27	0.8	7.5	7.5		ECEA1AN222U()	100	250
	3300	16	31.5	1090	0.29	0.8	7.5			ECEA1AN332U	100	
4700	18	35.5	1200	0.31	0.8	7.5			ECEA1AN472U	50		
16	10	5	11	40	0.20	0.5	2.0	5.0	2.5	ECEA1CN100U()	200	2000
	22	5	11	60	0.20	0.5	2.0	5.0	2.5	ECEA1CN220U()	200	2000
	33	5	11	80	0.20	0.5	2.0	5.0	2.5	ECEA1CN330U()	200	2000
	47	6.3	11.2	100	0.20	0.5	2.5	5.0	2.5	ECEA1CN470U()	200	2000
	220	10	12.5	260	0.20	0.6	5.0	5.0		ECEA1CN221X()	200	500
	330	10	16	330	0.20	0.6	5.0	5.0		ECEA1CN331U()	200	500
	470	10	20	380	0.20	0.6	5.0	5.0		ECEA1CN471U()	200	500
	1000	12.5	25	560	0.20	0.6	5.0	5.0		ECEA1CN102U()	200	500
	2200	16	31.5	750	0.22	0.8	7.5			ECEA1CN222U	100	
	3300	18	35.5	900	0.24	0.8	7.5			ECEA1CN332U	50	
25	10	5	11	45	0.15	0.5	2.0	5.0	2.5	ECEA1EN100U()	200	2000
	22	5	11	60	0.15	0.5	2.0	5.0	2.5	ECEA1EN220X()	200	2000
	33	6.3	11.2	90	0.15	0.5	2.5	5.0	2.5	ECEA1EN330U()	200	2000
	47	6.3	11.2	110	0.15	0.5	2.5	5.0	2.5	ECEA1EN470U()	200	2000
	100	8	11.5	180	0.15	0.6	3.5	5.0		ECEA1EN101U()	200	1000
	220	10	16	320	0.15	0.6	5.0	5.0		ECEA1EN221U()	200	500
	330	12.5	20	350	0.15	0.6	5.0	5.0		ECEA1EN331U()	200	500
	470	12.5	20	430	0.15	0.6	5.0	5.0		ECEA1EN471U()	200	500
	1000	16	25	680	0.15	0.8	7.5	7.5		ECEA1EN102U()	100	250
	2200	18	35.5	900	0.17	0.8	7.5			ECEA1EN222U	50	
35	10	5	11	43	0.15	0.5	2.0	5.0	2.5	ECEA1VN100U()	200	2000
	22	6.3	11.2	80	0.15	0.5	2.5	5.0	2.5	ECEA1VN220U()	200	2000
	33	8	11.5	100	0.15	0.6	3.5	5.0		ECEA1VN330U()	200	1000
	47	8	11.5	120	0.15	0.6	3.5	5.0		ECEA1VN470U()	200	1000
	100	10	16	230	0.15	0.6	5.0	5.0		ECEA1VN101U()	200	500
	220	12.5	20	360	0.15	0.6	5.0	5.0		ECEA1VN221U()	200	500
	330	12.5	20	450	0.15	0.6	5.0	5.0		ECEA1VN331U()	200	500
	470	12.5	25	590	0.15	0.6	5.0	5.0		ECEA1VN471U()	200	500

Endurance: 85 °C 2000 h (1000 hours for each polarity)

When requesting taped product, please put the letter "B" or "i" between the "()". Lead wire pitch B=5 mm, 7.5 mm, i=2.5 mm. The taping dimensions are explained on EE189 of our Catalog. Please use it as a reference guide.

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

■ Standard Products (Bi-polar)

W.V. (V)	Cap. (±20 %) (μF)	Case size		Specification		Lead Length			Part No.	Min. Packaging Q'ty		
		Dia. (mm)	Length (mm)	Ripple Current (120 Hz) (+85 °C) (mA r.m.s.)	tan δ (120 Hz) (+20 °C) (Ω)	Lead Dia. (mm)	Lead Space			Straight Leads (pcs)	Taping (pcs)	
							Straight (mm)	Taping *B (mm)				Taping *i (mm)
50	0.47	5	11	10	0.15	0.5	2.0	5.0	2.5	ECEA1HNR47U()	200	2000
	1	5	11	10	0.15	0.5	2.0	5.0	2.5	ECEA1HN010U()	200	2000
	2.2	5	11	18	0.15	0.5	2.0	5.0	2.5	ECEA1HN2R2U()	200	2000
	3.3	5	11	25	0.15	0.5	2.0	5.0	2.5	ECEA1HN3R3U()	200	2000
	4.7	5	11	30	0.15	0.5	2.0	5.0	2.5	ECEA1HN4R7U()	200	2000
	10	6.3	11.2	50	0.15	0.5	2.5	5.0	2.5	ECEA1HN100U()	200	2000
	22	8	11.5	90	0.15	0.6	3.5	5.0		ECEA1HN220U()	200	1000
	33	8	11.5	110	0.15	0.6	3.5	5.0		ECEA1HN330U()	200	1000
	47	10	12.5	140	0.15	0.6	5.0	5.0		ECEA1HN470U()	200	500
	100	10	20	250	0.15	0.6	5.0	5.0		ECEA1HN101U()	200	500
	220	12.5	25	360	0.15	0.6	5.0	5.0		ECEA1HN221U()	200	500
	330	16	25	450	0.15	0.8	7.5	7.5		ECEA1HN331U()	100	250
	470	16	31.5	590	0.15	0.8	7.5			ECEA1HN471U	100	

Endurance: 85 °C 2000 h (1000 hours for each polarity)

When requesting taped product, please put the letter "B" or "i" between the "()". Lead wire pitch B=5 mm, 7.5 mm, i=2.5 mm.

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