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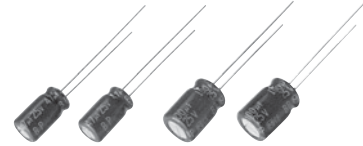
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Radial Lead Type

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



Features

- Endurance : 85 °C 2000 h
- RoHS compliant

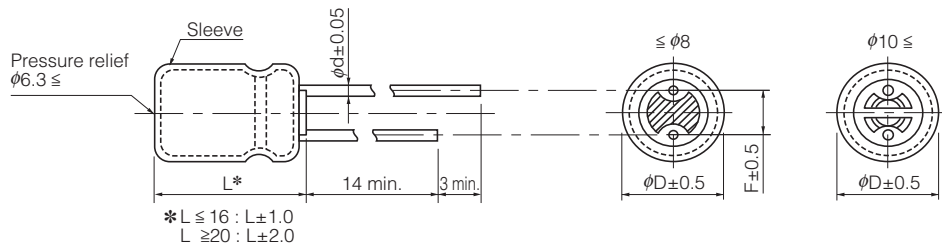
Specifications

Category temperature range	-40 °C to +85 °C	
Rated voltage range	6.3 V.DC to 50 V.DC	
Capacitance range	2.2 μ F to 6800 μ F	
Capacitance tolerance	\pm 20 % (120 Hz/+20 °C)	
Leakage current	$I \leq 0.03 CV + 3$ (μ A) After 5 minutes	
Dissipation factor ($\tan \delta$)	Please see the attached characteristics list	
Endurance	After 2000 hours application of DC working voltage (1000 hours for each polarity) at +85 °C \pm 2 °C, when the capacitors are restored to 20 °C, the capacitors shall meet the following limits.	
	Capacitance change	Within \pm 20 % of the initial value
	$\tan \delta$	≤ 150 % of the initial limit
	DC leakage current	Within the initial limit
Shelf life	After storage for 1000 hours at +85 °C \pm 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



(Unit : mm)

ϕD	5	6.3	8	10	12.5	16	18
ϕd	0.5	0.5	0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5

Characteristics list (Bi-polar)

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

Rated voltage (V.DC)	Cap. (±20 %) (μF)	Case size (mm)		Specification		Lead length (mm)			Part No.	Min. Packaging Q'ty		
		φD	L	Ripple current (120 Hz) (+85 °C) (mA r.m.s.)	tan δ (120 Hz) (+20 °C)	Lead dia. φd	Lead space			Straight leads (pcs)	Taping (pcs)	
							Straight	Taping *B				Taping *i
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

· 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.

· Please refer to the page of "Taping dimensions".

Characteristics list (Bi-polar)

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

Rated voltage (V.DC)	Cap. (±20 %) (μF)	Case size (mm)		Specification		Lead length (mm)			Part No.	Min. Packaging Q'ty		
		φD	L	Ripple current (120 Hz) (+85 °C) (mA r.m.s.)	tan δ (120 Hz) (+20 °C)	Lead dia. φd	Lead space			Straight leads (pcs)	Taping (pcs)	
							Straight	Taping *B				Taping *i
50	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		

· 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.

· Please refer to the page of "Taping dimensions".