### **Radial Lead Type**

Series: SU (Bi-polar) Type: A



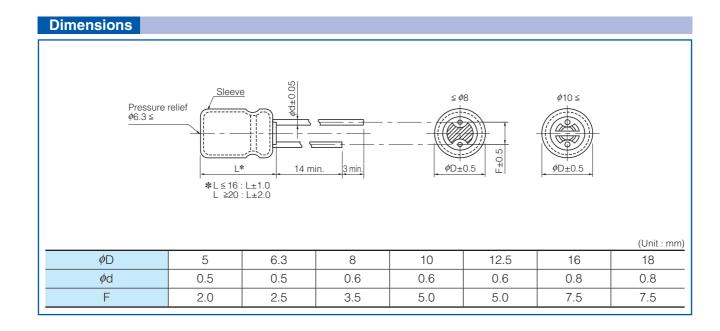
#### **Features**

• 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 μF to 6800 μF							
Capacitance tolerance	±20 % (120 Hz/+20 °C)							
Leakage current	I ≤ 0.03 CV +3 (μA) After 5 minutes							
Dissipation factor (tan $\delta$ )	Please see the attached characteristics list							
	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.							
Endurance	Capacitance change	Within ±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±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					



## **Panasonic**

### **Aluminum Electrolytic Capacitors (Radial Lead Type)**

### **Characteristics list (Bi-polar)**

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

		Case size (mm)		Specification		l	Lead len	ath (mm	)		Min. Packaging Q'ty	
Rated voltage (±20 %) (µF)	Can		L	Ripple	tan $\delta$ (120 Hz) (+20 °C)		Lead space					
	(±20 <sup>°</sup> %) (µF)	φD		current (120 Hz) (+85 °C) (mA r.m.s.)		Lead dia. <i>ø</i> d	Straight	Taping *B	Taping *xi	Part No.	Straight leads (pcs)	Taping (pcs)
	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
6.3	2200	12.5	25	660	0.32	0.6	5.0	5.0		ECEA0JN222U()	200	500
	3300	16	25	760	0.34	8.0	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	
	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
10	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	8.0	7.5			ECEA1AN332U	100	
	4700	18	35.5	1200	0.31	0.8	7.5			ECEA1AN472U	50	
	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
16	220	10	12.5	260	0.20	0.6	5.0	5.0		ECEA1CN221X()	200	500
10	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	8.0	7.5			ECEA1CN222U	100	
	3300	18	35.5	900	0.24	8.0	7.5			ECEA1CN332U	50	
	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
25	100	8	11.5	180	0.15	0.6	3.5	5.0		ECEA1EN101U()	200	1000
20	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

<sup>·</sup> 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.

 $<sup>\</sup>cdot$  Please refer to the page of "Taping dimensions".



# Panasonic Aluminum Electrolytic Capacitors (Radial Lead Type)

### **Characteristics list (Bi-polar)**

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

voltage (±		Case size (mm)		Specification		Lead length (mm)					Min. Packaging Q'ty	
	Cap.	φD	L	/ / /	tan δ (120 Hz) (+20 °C)	Lead dia. <i>ø</i> d	Lead space				0	
	(±20 %) (µF)						Straight	Taping *B	Taping <b>*</b> i	Part No.	Straight leads (pcs)	Taping (pcs)
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	8.0	7.5			ECEA1HN471U	100	

<sup>·</sup> 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.

<sup>·</sup> Please refer to the page of "Taping dimensions".