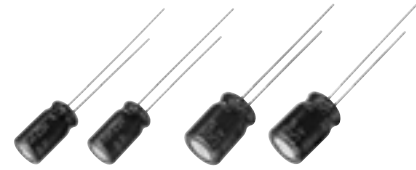


Radial Lead Type

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

■ Features

- Endurance : 105 °C 1000 h to 2000 h
- RoHS directive compliant



■ Specifications

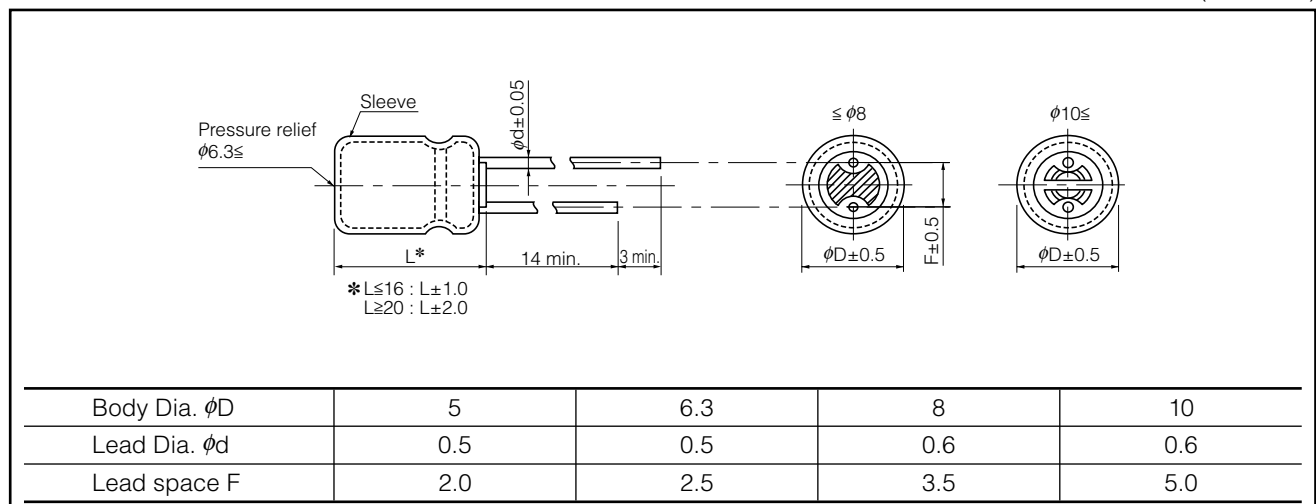
Category Temp. Range	-40 °C to +105 °C	
Rated W.V. Range	6.3 V.DC to 50 V.DC	
Nominal Cap. Range	2.2 μF to 330 μF	
Capacitance Tolerance	±20 % (120 Hz/+20 °C)	
DC Leakage Current	$I \leq 0.03 CV + 3 (\mu A)$ After 2 minutes or $I \leq 0.03 CV$ or 3 (μA) After 5 minutes (Whichever is greater)	
tan δ	Please see the attached standard products list	
Endurance	After following life test of DC working voltage at +105 °C±2 °C when the capacitors are restored to 20 °C, the capacitors shall meet the following limits. Duration φ5 to φ8 : 1000 hours (500 hours for each polarity) φ10 : 2000 hours (1000 hours for each polarity)	
	Capacitance change	± 20% of initial measured value
	tan δ	≤ 200 % of initial specified value
	DC leakage current	≤ initial specified value
Shelf Life	After storage for 1000 hours at +105 °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)

(Unit : mm)



■ Standard Products (Bi-polar)

Endurance : 105 °C ϕ 5 to ϕ 8=1000 h (500 h for each polarity), ϕ 10=2000 h (1000 h for each polarity)

W.V. (V)	Cap. (\pm 20 %) (μ F)	Case size		Specification		Lead Length			Part No.	Min. Packaging Q'ty		
		Dia. (mm)	Length (mm)	Ripple Current (120 Hz) (+105 °C) (mA r.m.s.)	$\tan \delta$ (120 Hz) (+20 °C)	Lead Dia. (mm)	Lead Space			Straight Leads (pcs)	Taping (pcs)	
							Straight (mm)	Taping *B (mm)				Taping *i (mm)
6.3	100	6.3	11.2	130	0.30	0.5	2.5	5.0	2.5	ECA0JEN101()	200	2000
	330	8	11.5	250	0.30	0.6	3.5	5.0		ECA0JEN331()	200	1000
10	47	5	11	90	0.24	0.5	2.0	5.0	2.5	ECA1AEN470()	200	2000
16	10	5	11	40	0.20	0.5	2.0	5.0	2.5	ECA1CEN100()	200	2000
	22	5	11	60	0.20	0.5	2.0	5.0	2.5	ECA1CEN220()	200	2000
	33	5	11	80	0.20	0.5	2.0	5.0	2.5	ECA1CEN330()	200	2000
	47	6.3	11.2	100	0.20	0.5	2.5	5.0	2.5	ECA1CEN470()	200	2000
25	10	5	11	45	0.15	0.5	2.0	5.0	2.5	ECA1EEN100()	200	2000
	22	6.3	11.2	60	0.15	0.5	2.5	5.0	2.5	ECA1EEN220()	200	2000
	33	6.3	11.2	90	0.15	0.5	2.5	5.0	2.5	ECA1EEN330()	200	2000
	47	6.3	11.2	110	0.15	0.5	2.5	5.0	2.5	ECA1EEN470()	200	2000
	100	8	11.5	180	0.15	0.6	3.5	5.0		ECA1EEN101()	200	1000
35	33	8	11.5	100	0.15	0.6	3.5	5.0		ECA1VEN330()	200	1000
	100	10	16	230	0.15	0.6	5.0	5.0		ECA1VEN101()	200	500
50	2.2	5	11	18	0.15	0.5	2.0	5.0	2.5	ECA1HEN2R2()	200	2000
	3.3	5	11	25	0.15	0.5	2.0	5.0	2.5	ECA1HEN3R3()	200	2000
	4.7	5	11	30	0.15	0.5	2.0	5.0	2.5	ECA1HEN4R7()	200	2000
	10	6.3	11.2	50	0.15	0.5	2.5	5.0	2.5	ECA1HEN100()	200	2000
	22	8	11.5	90	0.15	0.6	3.5	5.0		ECA1HEN220()	200	1000
	33	8	11.5	110	0.15	0.6	3.5	5.0		ECA1HEN330()	200	1000
	47	10	12.5	140	0.15	0.6	5.0	5.0		ECA1HEN470()	200	500
	100	10	20	250	0.15	0.6	5.0	5.0		ECA1HEN101()	200	500

- 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".