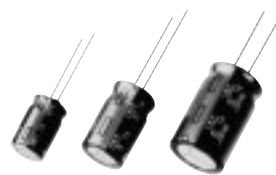


Radial Lead Type

Series: **TA** Type: **A**

■ Features

- Endurance: 125 °C 2000 h
- Heat cycle: 1000 cycle -40 °C to +125 °C
- RoHS directive compliant



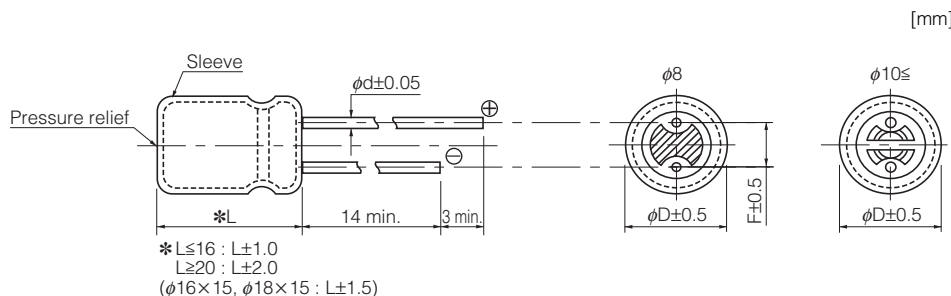
■ Specifications

Category Temp. Range	-40 °C to + 125 °C							
Rated W.V. Range	10 V .DC to 63 V .DC							
Nominal Cap. Range	1 μF to 4700 μF							
Capacitance Tolerance	±20 % (120 Hz/+20 °C)							
DC Leakage Current	I ≤ 0.01 CV or 3 (μA) After 2 minutes (Whichever is greater)							
tan δ	W.V.(V)	10	16	25	35	50	63	(120Hz / +20 °C)
	tan δ	0.20	0.16	0.14	0.12	0.10	0.09	
	For capacitance value ≥ 1000 μF , add 0.02 per every 1000 μF.							
Endurance	After following life test with DC voltage and +125 °C±2 °C ripple current value applied (The sum of DC and ripple peak voltage shall not exceed the rated working voltage), for 2000 hours, when the capacitors are restored to 20 °C, the capacitors, shall meet the limits specified below.							
	Capacitance change	±30% of initial measured value						
	tan δ	≤ 300 % of initial specified value						
	DC leakage current	≤ initial specified value						
Shelf Life	After storage for 1000 hours at +125 °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

W.V. (V.DC)	Cap. (μF)	Frequency (Hz)				
		60	120	1 k	10 k	100 k
10 to 63	1 to 330	0.55	0.65	0.85	0.90	1.00
	470 to 1000	0.70	0.75	0.90	0.95	1.00
	2200 to 4700	0.75	0.80	0.90	0.95	1.00

■ Dimensions in mm (not to scale)



(mm)

Body Dia. φD	8	10	12.5	16	18
Lead Dia. φd	0.6	0.6	0.6	0.8	0.8
Lead space F	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 Feb. 2009

■ Standard Products

W.V.	Cap. (±20 %)	Case size		Specification		Lead Length			Part No.	Min. Packaging Q'ty	
		Dia.	Length	Ripple Current (100 kHz) (+125 °C) (mA r.m.s.)	Imped- ance (100 kHz) (+20 °C) (Ω)	Lead Dia. (mm)	Lead Space			Straight Leads	Taping
							Straight	Taping *B			
(V)	(μF)	(mm)	(mm)	(mA r.m.s.)	(Ω)	(mm)	(mm)	(mm)		(pcs)	(pcs)
10	330	8	11.5	500	0.130	0.6	3.5	5.0	EEUTA1A331()	200	1000
	470	10	12.5	680	0.100	0.6	5.0	5.0	EEUTA1A471()	200	500
	1000	10	20	1100	0.057	0.6	5.0	5.0	EEUTA1A102()	200	500
		12.5	15	1085	0.070	0.6	5.0	5.0	EEUTA1A102S()	200	500
	2200	12.5	25	1750	0.033	0.6	5.0	5.0	EEUTA1A222L()	200	500
		16	20	1985	0.032	0.8	7.5	7.5	EEUTA1A222()	100	250
		18	15	1800	0.042	0.8	7.5	7.5	EEUTA1A222S()	100	250
	3300	16	25	2300	0.024	0.8	7.5	7.5	EEUTA1A332()	100	250
		18	20	2250	0.031	0.8	7.5	7.5	EEUTA1A332S()	100	250
	4700	16	31.5	2710	0.020	0.8	7.5		EEUTA1A472	100	
		18	25	2470	0.022	0.8	7.5	7.5	EEUTA1A472S()	100	250
16	220	8	11.5	500	0.130	0.6	3.5	5.0	EEUTA1C221()	200	1000
	330	10	12.5	680	0.100	0.6	5.0	5.0	EEUTA1C331()	200	500
	470	10	16	945	0.075	0.6	5.0	5.0	EEUTA1C471()	200	500
		12.5	12.5	865	0.105	0.6	5.0	5.0	EEUTA1C471S()	200	500
	1000	12.5	20	1490	0.042	0.6	5.0	5.0	EEUTA1C102()	200	500
		16	15	1520	0.047	0.8	7.5	7.5	EEUTA1C102S()	100	250
	2200	16	25	2300	0.024	0.8	7.5	7.5	EEUTA1C222()	100	250
		18	20	2250	0.031	0.8	7.5	7.5	EEUTA1C222S()	100	250
	3300	16	31.5	2710	0.020	0.8	7.5		EEUTA1C332	100	
		18	25	2470	0.022	0.8	7.5	7.5	EEUTA1C332S()	100	250
	4700	18	31.5	3270	0.018	0.8	7.5		EEUTA1C472	50	
25	100	8	11.5	500	0.130	0.6	3.5	5.0	EEUTA1E101()	200	1000
	220	10	12.5	680	0.100	0.6	5.0	5.0	EEUTA1E221()	200	500
	330	10	16	945	0.075	0.6	5.0	5.0	EEUTA1E331()	200	500
	470	10	20	1100	0.057	0.6	5.0	5.0	EEUTA1E471()	200	500
		12.5	15	1085	0.070	0.6	5.0	5.0	EEUTA1E471S()	200	500
	1000	12.5	25	1750	0.033	0.6	5.0	5.0	EEUTA1E102L()	200	500
		16	20	1985	0.032	0.8	7.5	7.5	EEUTA1E102()	100	250
		18	15	1800	0.042	0.8	7.5	7.5	EEUTA1E102S()	100	250
	2200	16	31.5	2710	0.020	0.8	7.5		EEUTA1E222	100	
		18	25	2470	0.022	0.8	7.5	7.5	EEUTA1E222S()	100	250
	3300	18	35.5	3310	0.017	0.8	7.5		EEUTA1E332	50	
35	100	10	12.5	555	0.180	0.6	5.0	5.0	EEUTA1V101()	200	500
	220	10	16	765	0.130	0.6	5.0	5.0	EEUTA1V221()	200	500
	330	10	20	930	0.100	0.6	5.0	5.0	EEUTA1V331()	200	500
	470	12.5	20	1330	0.070	0.6	5.0	5.0	EEUTA1V471()	200	500
		16	15	1450	0.088	0.8	7.5	7.5	EEUTA1V471S()	100	250
	1000	16	25	2010	0.037	0.8	7.5	7.5	EEUTA1V102()	100	250
		18	20	2180	0.046	0.8	7.5	7.5	EEUTA1V102S()	100	250
	2200	18	35.5	2790	0.025	0.8	7.5		EEUTA1V222	50	

Endurance : 125 °C 2000 h

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

The taping dimensions are explained on p.178 of our Catalog. Please use it as a reference guide.

■ Standard Products

W.V.	Cap. (±20 %)	Case size		Specification		Lead Length			Part No.	Min. Packaging Q'ty	
		Dia.	Length	Ripple Current (100 kHz) (+125 °C) (mA r.m.s.)	Imped- ance (100 kHz) (+20 °C) (Ω)	Lead Dia.	Lead Space			Straight Leads	Taping
							Straight	Taping *B			
(V)	(μF)	(mm)	(mm)	(mA r.m.s.)	(Ω)	(mm)	(mm)	(mm)		(pcs)	(pcs)
50	1	8	11.5	35	2.00	0.6	3.5	5.0	EEUTA1H1R0()	200	1000
	2.2	8	11.5	50	1.80	0.6	3.5	5.0	EEUTA1H2R2()	200	1000
	3.3	8	11.5	60	1.50	0.6	3.5	5.0	EEUTA1H3R3()	200	1000
	4.7	8	11.5	85	1.15	0.6	3.5	5.0	EEUTA1H4R7()	200	1000
	10	8	11.5	180	0.950	0.6	3.5	5.0	EEUTA1H100()	200	1000
	22	8	11.5	250	0.650	0.6	3.5	5.0	EEUTA1H220()	200	1000
	33	8	11.5	300	0.450	0.6	3.5	5.0	EEUTA1H330()	200	1000
	47	8	11.5	440	0.350	0.6	3.5	5.0	EEUTA1H470S()	200	1000
	100	10	12.5	555	0.180	0.6	5.0	5.0	EEUTA1H101()	200	500
	220	10	20	930	0.100	0.6	5.0	5.0	EEUTA1H221()	200	500
	330	12.5	20	1330	0.070	0.6	5.0	5.0	EEUTA1H331()	200	500
		16	15	1450	0.088	0.8	7.5	7.5	EEUTA1H331S()	100	250
	470	12.5	25	1650	0.055	0.6	5.0	5.0	EEUTA1H471L()	200	500
		16	20	1650	0.053	0.8	7.5	7.5	EEUTA1H471()	100	250
		18	15	1710	0.075	0.8	7.5	7.5	EEUTA1H471S()	100	250
	1000	16	31.5	2430	0.031	0.8	7.5		EEUTA1H102	100	
		18	25	2350	0.032	0.8	7.5	7.5	EEUTA1H102S()	100	250
63	22	8	11.5	310	0.470	0.6	3.5	5.0	EEUTA1J220()	200	1000
	33	10	12.5	410	0.360	0.6	5.0	5.0	EEUTA1J330()	200	500
	47	10	16	460	0.270	0.6	5.0	5.0	EEUTA1J470()	200	500
		12.5	12.5	650	0.240	0.6	5.0	5.0	EEUTA1J470S()	200	500
	100	10	20	680	0.205	0.6	5.0	5.0	EEUTA1J101()	200	500
	220	12.5	25	1325	0.100	0.6	5.0	5.0	EEUTA1J221L()	200	500
		16	20	1360	0.085	0.8	7.5	7.5	EEUTA1J221()	100	250
		18	15	1300	0.120	0.8	7.5	7.5	EEUTA1J221S()	100	250
	330	16	25	1660	0.070	0.8	7.5	7.5	EEUTA1J331()	100	250
		18	20	1760	0.077	0.8	7.5	7.5	EEUTA1J331S()	100	250
	470	16	31.5	2055	0.060	0.8	7.5		EEUTA1J471	100	
		18	25	1990	0.060	0.8	7.5	7.5	EEUTA1J471S()	100	250

Endurance : 125 °C 2000 h

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