

### Radial Lead Type

Series: ED    Type : A

Country of Origin

- Features High ripple current (at high frequency)  
Endurance: 105 °C 8000,10000h  
Including low profile products (20mm height)  
RoHS directive compliant

Japan  
Malaysia  
China



- Main applications  
Electronic ballast, Power supply input circuit

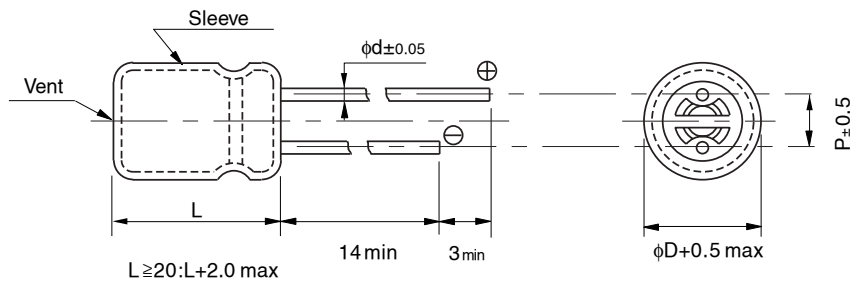
#### ■ Specifications

Category temp. range	-25 to +105°C							
Rated W.V. Range	160 to 450 V .DC							
Nominal Cap. Range	10 to 330 μ F							
Capacitance Tolerance	±20 % (120Hz/+20°C)							
DC Leakage Current	I ≤ 0.06 CV + 10(μ A) After 2 minutes application of rated working voltage at +20°C							
tan δ	Please see the attached standard products list							
Characteristics at low temperature	W.V.(V)	160	200	250	350	400	450	(Impedance ratio at 120Hz)
	Z(-25°C)/Z(20°C)	3	3	3	6	6	6	
Endurance	After following life test with DC voltage and +105±2°C ripple current value applied (The sum of DC and ripple peak voltage shall not exceed the rated working voltage), for regulation times, the capacitors shall meet the limits specified below. Post test requirements at +20°C.							
	Regulation times of life test: φ 10=8000h, φ 12.5 to φ18=10000h							
	Capacitance change	±20% of initial measured value						
	tan δ	≤ 200 of initial specified value						
Shelf Life	After storage for 1000 hours at +105±2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in Endurance (With voltage treatment)							

#### ■ Ripple current Frequency Coefficient

Cap.(μF)	Frequency (Hz)					
	50 ≤ f <120	120 ≤ f <300	300 ≤ f <1k	1k ≤ f <10k	10k ≤ f <30k	30k ≤ f ≤100k
Cap. < 100μF	0.30	0.40	0.55	0.70	0.90	1.00
100μF ≤ Cap.	0.35	0.45	0.60	0.75	0.90	1.00

#### ■ Dimensions in mm (not to scale)



	(mm)			
Body Dia. φD	10	12.5	16	18
Lead Dia. φd	0.6	0.6	0.8	0.8
Lead space P	5.0	5.0	7.5	7.5

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### ■ Standard Products

W.V. (V)	Cap. (±20%) (μF)	Case size		Specification			Lead Length			Part No.	Min.Packaging Qty	
		Dia. (mm)	Length (mm)	Ripple current (100kHz) (+105°C) (mA)	tan δ (120Hz) (+20°C)	Endurance (hours)	Lead Dia. (mm)	Lead Space			Straight Leads (pcs)	Taping (pcs)
								Straight (mm)	Taping *B (mm)			
160	22	10	20	500	0.15	8000	0.6	5.0	5.0	EEUED2C220( )	200	500
	33	10	20	580	0.15	8000	0.6	5.0	5.0	EEUED2C330( )	200	500
	47	10	20	750	0.15	8000	0.6	5.0	5.0	EEUED2C470( )	200	500
	68	12.5	20	950	0.15	10000	0.6	5.0	5.0	EEUED2C680( )	200	500
	82	12.5	25	1060	0.15	10000	0.6	5.0	5.0	EEUED2C820( )	200	500
	100	12.5	25	1170	0.15	10000	0.6	5.0	5.0	EEUED2C101( )	200	500
		16	20	1280	0.15	10000	0.8	7.5	7.5	EEUED2C101S( )	100	250
	150	16	25	1400	0.15	10000	0.8	7.5	7.5	EEUED2C151( )	100	250
		18	20	1400	0.15	10000	0.8	7.5	7.5	EEUED2C151S( )	100	250
	220	16	31.5	1700	0.15	10000	0.8	7.5		EEUED2C221	100	
18		25	1500	0.15	10000	0.8	7.5	7.5	EEUED2C221S( )	100	250	
330	18	31.5	2000	0.15	10000	0.8	7.5		EEUED2C331	50		
200	22	10	20	600	0.15	8000	0.6	5.0	5.0	EEUED2D220( )	200	500
	33	10	20	650	0.15	8000	0.6	5.0	5.0	EEUED2D330( )	200	500
	47	12.5	20	790	0.15	10000	0.6	5.0	5.0	EEUED2D470( )	200	500
	68	12.5	25	950	0.15	10000	0.6	5.0	5.0	EEUED2D680( )	200	500
		16	20	1000	0.15	10000	0.8	7.5	7.5	EEUED2D680S( )	100	250
	82	16	20	1100	0.15	10000	0.8	7.5	7.5	EEUED2D820S( )	100	250
	100	16	25	1300	0.15	10000	0.8	7.5	7.5	EEUED2D101( )	100	250
		18	20	1280	0.15	10000	0.8	7.5	7.5	EEUED2D101S( )	100	250
	150	16	25	1400	0.15	10000	0.8	7.5	7.5	EEUED2D151( )	100	250
	220	18	31.5	2000	0.15	10000	0.8	7.5		EEUED2D221	50	
330	18	40	2400	0.15	10000	0.8	7.5		EEUED2D331	50		
250	22	10	20	560	0.15	8000	0.6	5.0	5.0	EEUED2E220( )	200	500
	33	12.5	20	710	0.15	10000	0.6	5.0	5.0	EEUED2E330( )	200	500
	47	12.5	25	920	0.15	10000	0.6	5.0	5.0	EEUED2E470( )	200	500
		16	20	990	0.15	10000	0.8	7.5	7.5	EEUED2E470S( )	100	250
	68	16	20	1000	0.15	10000	0.8	7.5	7.5	EEUED2E680S( )	100	250
	82	16	25	1200	0.15	10000	0.8	7.5	7.5	EEUED2E820( )	100	250
		18	20	1200	0.15	10000	0.8	7.5	7.5	EEUED2E820S( )	100	250
	100	16	31.5	1500	0.15	10000	0.8	7.5		EEUED2E101	100	
		18	25	1500	0.15	10000	0.8	7.5	7.5	EEUED2E101S( )	100	250
	150	18	31.5	1800	0.15	10000	0.8	7.5		EEUED2E151	50	
220	18	40	2100	0.15	10000	0.8	7.5		EEUED2E221	50		
350	10	10	20	350	0.20	8000	0.6	5.0	5.0	EEUED2V100( )	200	500
	22	12.5	20	480	0.20	10000	0.6	5.0	5.0	EEUED2V220( )	200	500
	33	16	20	640	0.20	10000	0.8	7.5	7.5	EEUED2V330S( )	100	250
	47	16	25	800	0.20	10000	0.8	7.5	7.5	EEUED2V470( )	100	250
		18	20	800	0.20	10000	0.8	7.5	7.5	EEUED2V470S( )	100	250
	68	16	31.5	1100	0.20	10000	0.8	7.5		EEUED2V680	100	
		18	25	1000	0.20	10000	0.8	7.5	7.5	EEUED2V680S( )	100	250
82	18	25	1100	0.20	10000	0.8	7.5	7.5	EEUED2V820S( )	100	250	

When requesting taped product, please put the letter "B" between the "( )". Lead wire pitch B=5mm, 7.5mm. The taping dimensions are explained on p.196 of our Catalog. Please use it as a reference guide.

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■ Standard Products

W.V. (V)	Cap. (±20%) (μF)	Case size		Specification			Lead Length			Part No.	Min.Packaging Q'ty	
		Dia. (mm)	Length (mm)	Ripple current (100kHz) (+105°C) (mA)	tan δ (120Hz) (+20°C)	Endu- rance (hours)	Lead Dia. (mm)	Lead Space			Straight Leads (pcs)	Taping (pcs)
								Straight (mm)	Taping *B (mm)			
350	100	18	31.5	1200	0.20	10000	0.8	7.5		EEUED2V101	50	
400	10	10	20	300	0.24	8000	0.6	5.0	5.0	EEUED2G100( )	200	500
	15	12.5	20	410	0.24	10000	0.6	5.0	5.0	EEUED2G150( )	200	500
	22	12.5	25	500	0.24	10000	0.6	5.0	5.0	EEUED2G220( )	200	500
				600	0.24	10000	0.8	7.5	7.5	EEUED2G220S( )	100	250
	33	16	20	730	0.24	10000	0.8	7.5	7.5	EEUED2G330S( )	100	250
	47	16	25	840	0.24	10000	0.8	7.5	7.5	EEUED2G470( )	100	250
				840	0.24	10000	0.8	7.5	7.5	EEUED2G470S( )	100	250
	68	18	31.5	1200	0.24	10000	0.8	7.5		EEUED2G680	50	
82	18	40	1500	0.24	10000	0.8	7.5		EEUED2G820	50		
450	10	12.5	20	350	0.24	10000	0.6	5.0	5.0	EEUED2W100( )	200	500
	15	12.5	25	560	0.24	10000	0.6	5.0	5.0	EEUED2W150( )	200	500
	22	16	20	680	0.24	10000	0.8	7.5	7.5	EEUED2W220S( )	100	250
	33	16	31.5	850	0.24	10000	0.8	7.5		EEUED2W330	100	
				850	0.24	10000	0.8	7.5	7.5	EEUED2W330S( )	100	250
	47	18	31.5	1000	0.24	10000	0.8	7.5		EEUED2W470	50	
	68	18	40	1300	0.24	10000	0.8	7.5		EEUED2W680	50	

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