

Radial Lead Type

Series : **FP** Type : **A**

NEW



Features

- High ripple current (2 to 2.5 times as high as FC series)
- Large capacitance (Up to 60 % larger than FC series)
- Endurance : 105 °C 4000 h to 5000 h
- RoHS compliant

Country of origin

- Malaysia

Specifications

Category temperature range	-55 °C to +105 °C		
Rated voltage range	25 V.DC to 35 V.DC		
Capacitance range	510 µF to 2000 µF		
Capacitance tolerance	±20 % (120 Hz/+20 °C)		
Leakage current	$I \leq 0.01 CV$ (µA) After 2 minutes		
Dissipation factor (tan δ)	V.DC	25	35
	tan δ	0.14	0.12
(max.) (120 Hz/+20 °C)			
Add 0.02 per 1000 µF for products of 1000 µF or more.			
Endurance	After following life test with DC voltage and +105 °C±2 °C ripple current value applied. (The sum of DC and ripple peak voltage shall not exceed the rated working voltage) when the capacitors are restored to 20 °C, the capacitors shall meet the limits specified below.		
	Duration φ10 : 4000 hours, φ12.5 : 5000 hours		
	Capacitance change	Within ±30 % of the initial value	
	tan δ	≤ 300 % of the initial limit	
	DC leakage current	Within the initial limit	
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)		
AEC-Q200	AEC-Q200 compliant		

Frequency correction factor for ripple current

Rated voltage (V.DC)	Capacitance (µF)	Frequency (Hz)			
		120	1 k	10 k	100 k to
25 to 35	510 to 1000	0.65	0.75	0.95	1.00
	1200 to 2000	0.75	0.80	1.00	1.00

Dimensions

* L ≤ 16 : L±1.5
L ≥ 20 : L±2.0

(Unit : mm)

φD	10	12.5
L	16 to 20	20 to 25
φd	0.6	0.6
F	5.0	5.0

Case size/ Impedance/ Ripple current

Rated voltage (V.DC)	25 V.DC to 35 V.DC		
	ESR (Ω /100 kHz)		Ripple current (mA r.m.s./100 kHz)
	+20 °C	-10 °C	+105 °C
Case size (mm) (ϕ D×L)			
10 × 16	0.068	0.136	2500
10 × 20	0.052	0.104	3000
12.5 × 20	0.038	0.076	3250
12.5 × 25	0.030	0.060	4000

Characteristics list

Rated voltage (V.DC)	Cap. (\pm 20 %) (μ F)	Case size (mm)		Specification			Lead length (mm)			Part No.	Min. Packaging Qty	
		ϕ D	L	Ripple current (100 kHz) (+105 °C) (mA r.m.s.)	ESR (100 kHz) (+20 °C) (Ω)	Endurance (hours)	Lead dia. ϕ d	Lead space			Straight leads (pcs)	Taping (pcs)
								Straight	Taping *B			
25	680	10	16	2500	0.068	4000	0.6	5.0	5.0	EEUFP1E681()	200	500
	1000	10	20	3000	0.052	4000	0.6	5.0	5.0	EEUFP1E102()	200	500
	1500	12.5	20	3250	0.038	5000	0.6	5.0	5.0	EEUFP1E152()	200	500
	2000	12.5	25	4000	0.030	5000	0.6	5.0	5.0	EEUFP1E202()	200	500
35	510	10	16	2500	0.068	4000	0.6	5.0	5.0	EEUFP1V511()	200	500
	750	10	20	3000	0.052	4000	0.6	5.0	5.0	EEUFP1V751()	200	500
	1000	12.5	20	3250	0.038	5000	0.6	5.0	5.0	EEUFP1V102()	200	500
	1300	12.5	25	4000	0.030	5000	0.6	5.0	5.0	EEUFP1V132()	200	500

- When requesting taped product, please put the letter "B". Lead wire pitch *B=5 mm.
- Please refer to the page of "Taping dimensions".