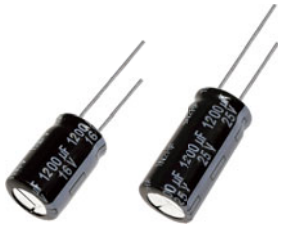
Radial Lead Type

Series : **FS** Type : **A**



Features

- Low ESR, Miniaturized (1 size smaller than series FR)
- Endurance : 105 °C 5000 h to 10000 h
- RoHS compliant

Country of origin

- Malaysia

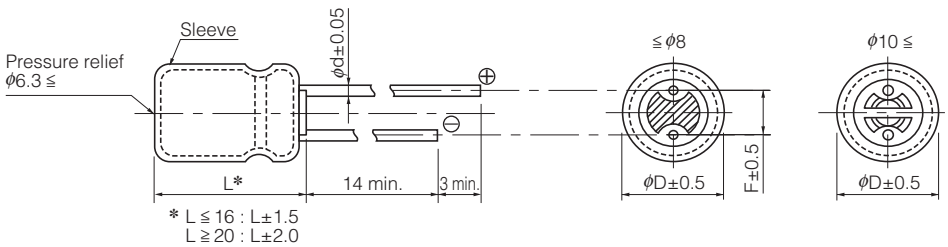
Specifications

Category temperature range	–40 °C to +105 °C							
Rated voltage range	6.3 V.DC to 50 V.DC							
Capacitance range	27 μF to 10000 μF							
Capacitance tolerance	±20 % (120 Hz/+20 °C)							
Leakage current	I ≦ 0.01 CV (μA) After 2 minutes							
Dissipation factor (tan δ)	V.DC	6.3	10	16	25	35	50	(max.) (120 Hz/+20 °C)
	tan δ	0.22	0.19	0.16	0.14	0.12	0.10	
	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 ϕ5×11/ ϕ6.3×11.2 : 5000 hours, ϕ8×11.5/ ϕ10×12.5 : 6000 hours ϕ8×15/ ϕ10×16 : 8000 hours, ϕ8×20 : 9000 hours ϕ10×20 to ϕ10×25/ ϕ12.5×20 to ϕ12.5×35/ ϕ16×20 to ϕ16×25 : 10000 hours							
	Capacitance change	Within ±25 % of the initial value (6.3 V.DC to 10 V.DC : ±30 %)						
	tan δ	≦ 200 % 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)							

Frequency correction factor for ripple current

Rated voltage (V.DC)	Capacitance (μF)	Frequency (Hz)				
		60	120	1 k	10 k	100 k to
6.3 to 50	27 to 33	0.45	0.55	0.75	0.90	1.00
	47 to 330	0.60	0.70	0.85	0.95	1.00
	390 to 1000	0.65	0.75	0.90	0.98	1.00
	1200 to 10000	0.75	0.80	0.95	1.00	1.00

Dimensions



(Unit : mm)

ϕD	5	6.3	8	10	12.5		16
L	—	—	—	—	12.5 to 25	30 to 35	—
ϕd	0.5	0.5	0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	5.0	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.

Case size/ Impedance/ Ripple current

Rated voltage (V.DC) / Case size (mm) (φD×L)	6.3 V.DC to 35 V.DC			50 V.DC		
	Impedance (Ω/100 kHz)		Ripple current (mA r.m.s./100 kHz)	Impedance (Ω/100 kHz)		Ripple current (mA r.m.s./100 kHz)
	+20 °C	–10 °C	+105 °C	+20 °C	–10 °C	+105 °C
5 × 11	0.300	1.000	280	0.340	1.130	250
6.3 × 11.2	0.130	0.430	455	–	–	–
8 × 11.5	0.056	0.168	950	–	–	–
8 × 15	0.041	0.123	1240	0.045	0.135	1140
8 × 20	0.030	0.090	1560	0.033	0.099	1430
10 × 12.5	0.043	0.114	1290	–	–	–
10 × 16	0.028	0.078	1790	–	–	–
10 × 20	0.020	0.057	2180	0.023	0.069	1890
10 × 25	0.018	0.054	2470	0.022	0.066	2150
12.5 × 20	0.018	0.045	2600	–	–	–
12.5 × 25	0.015	0.038	3190	0.018	0.045	2660
12.5 × 30	0.013	0.033	3630	0.016	0.040	3160
12.5 × 35	0.012	0.030	3750	0.014	0.035	3270
16 × 20	0.017	0.043	3300	–	–	–
16 × 25	0.014	0.035	3820	0.016	0.040	3320

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.

Characteristics list

Rated voltage (V.DC)	Cap. (±20 %) (μF)	Case size (mm)		Specification			Lead length (mm)				Part No.	Min. Packaging Q'ty	
								Lead space					
		φD	L	Ripple current (100 kHz) (+105 °C) (mA r.m.s.)	Impedance (100 kHz) (+20 °C) (Ω)	Endurance (hours)	Lead dia. φd	Straight	Taping ✻B	Taping ✻H		Straight leads (pcs)	Taping (pcs)
6.3	220	5	11	280	0.300	5000	0.5	2.0	5.0	2.5	EEUFS0J221( )	200	2000
	1500	8	15	1240	0.041	8000	0.6	3.5	5.0		EEUFS0J152L( )	200	1000
		10	12.5	1290	0.043	6000	0.6	5.0	5.0		EEUFS0J152( )	200	500
	1800	8	20	1560	0.030	9000	0.6	3.5	5.0		EEUFS0J182L( )	200	1000
	2000	8	20	1560	0.030	9000	0.6	3.5	5.0		EEUFS0J202L( )	200	1000
		10	16	1790	0.028	8000	0.6	5.0	5.0		EEUFS0J202( )	200	500
	2200	10	16	1790	0.028	8000	0.6	5.0	5.0		EEUFS0J222( )	200	500
	2700	10	20	2180	0.020	10000	0.6	5.0	5.0		EEUFS0J272( )	200	500
	3300	10	20	2180	0.020	10000	0.6	5.0	5.0		EEUFS0J332( )	200	500
	3900	10	25	2470	0.018	10000	0.6	5.0	5.0		EEUFS0J392L( )	200	500
	4700	12.5	20	2600	0.018	10000	0.6	5.0	5.0		EEUFS0J472( )	200	500
	5100	12.5	25	3190	0.015	10000	0.6	5.0	5.0		EEUFS0J512( )	200	500
	5600	12.5	25	3190	0.015	10000	0.6	5.0	5.0		EEUFS0J562( )	200	500
	6200	12.5	30	3630	0.013	10000	0.8	5.0			EEUFS0J622L	100	
	6800	12.5	30	3630	0.013	10000	0.8	5.0			EEUFS0J682L	100	
	7500	12.5	35	3750	0.012	10000	0.8	5.0			EEUFS0J752L	100	
		16	20	3300	0.017	10000	0.8	7.5	7.5		EEUFS0J752S( )	100	250
	8200	12.5	35	3750	0.012	10000	0.8	5.0			EEUFS0J822L	100	
		16	20	3300	0.017	10000	0.8	7.5	7.5		EEUFS0J822S( )	100	250
	9100	16	25	3820	0.014	10000	0.8	7.5	7.5		EEUFS0J912( )	100	250
	10000	16	25	3820	0.014	10000	0.8	7.5	7.5		EEUFS0J103( )	100	250
10	180	5	11	280	0.300	5000	0.5	2.0	5.0	2.5	EEUFS1A181( )	200	2000
	330	6.3	11.2	455	0.130	5000	0.5	2.5	5.0	2.5	EEUFS1A331( )	200	2000
	820	8	11.5	950	0.056	6000	0.6	3.5	5.0		EEUFS1A821( )	200	1000
	1000	10	12.5	1290	0.043	6000	0.6	5.0	5.0		EEUFS1A102( )	200	500
	1200	8	15	1240	0.041	8000	0.6	3.5	5.0		EEUFS1A122L( )	200	1000
		10	12.5	1290	0.043	6000	0.6	5.0	5.0		EEUFS1A122( )	200	500
	1800	8	20	1560	0.030	9000	0.6	3.5	5.0		EEUFS1A182L( )	200	1000
		10	16	1790	0.028	8000	0.6	5.0	5.0		EEUFS1A182( )	200	500
	2000	10	20	2180	0.020	10000	0.6	5.0	5.0		EEUFS1A202( )	200	500
	2200	10	20	2180	0.020	10000	0.6	5.0	5.0		EEUFS1A222( )	200	500
	2700	10	25	2470	0.018	10000	0.6	5.0	5.0		EEUFS1A272L( )	200	500
	3600	12.5	20	2600	0.018	10000	0.6	5.0	5.0		EEUFS1A362( )	200	500
	4700	12.5	25	3190	0.015	10000	0.6	5.0	5.0		EEUFS1A472( )	200	500
	5100	12.5	30	3630	0.013	10000	0.8	5.0			EEUFS1A512L	100	
	5600	12.5	30	3630	0.013	10000	0.8	5.0			EEUFS1A562L	100	
		16	20	3300	0.017	10000	0.8	7.5	7.5		EEUFS1A562S( )	100	250
	7500	12.5	35	3750	0.012	10000	0.8	5.0			EEUFS1A752L	100	
	8200	16	35	3820	0.014	10000	0.8	7.5	7.5		EEUFS1A822( )	100	250

· When requesting taped product, please put the letter "B" or "H" between the "( )". Lead wire pitch ✻B=5 mm, 7.5 mm, H=2.5 mm.

· Please refer to the page of “Taping dimensions”.

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.

Characteristics list

Rated voltage (V.DC)	Cap. (±20 %) (μF)	Case size (mm)		Specification			Lead length (mm)				Part No.	Min. Packaging Q'ty	
								Lead space					
		φD	L	Ripple current (100 kHz) (+105 °C) (mA r.m.s.)	Impedance (100 kHz) (+20 °C) (Ω)	Endurance (hours)	Lead dia. φd	Straight	Taping ✻B	Taping ✻H		Straight leads (pcs)	Taping (pcs)
16	120	5	11	280	0.300	5000	0.5	2.0	5.0	2.5	EEUFS1C121( )	200	2000
	510	8	11.5	950	0.056	6000	0.6	3.5	5.0		EEUFS1C511( )	200	1000
	820	8	15	1240	0.041	8000	0.6	3.5	5.0		EEUFS1C821L( )	200	1000
		10	12.5	1290	0.043	6000	0.6	5.0	5.0		EEUFS1C821( )	200	500
	1200	8	20	1560	0.030	9000	0.6	3.5	5.0		EEUFS1C122L( )	200	1000
		10	16	1790	0.028	8000	0.6	5.0	5.0		EEUFS1C122( )	200	500
	1800	10	20	2180	0.020	10000	0.6	5.0	5.0		EEUFS1C182( )	200	500
	2200	10	25	2470	0.018	10000	0.6	5.0	5.0		EEUFS1C222L( )	200	500
	2400	12.5	20	2600	0.018	10000	0.6	5.0	5.0		EEUFS1C242( )	200	500
	3300	12.5	25	3190	0.015	10000	0.6	5.0	5.0		EEUFS1C332( )	200	500
	3600	12.5	30	3630	0.013	10000	0.8	5.0			EEUFS1C362L	100	
	3900	12.5	30	3630	0.013	10000	0.8	5.0			EEUFS1C392L	100	
	4700	16	20	3300	0.017	10000	0.8	7.5	7.5		EEUFS1C472S( )	100	250
	5100	12.5	35	3750	0.012	10000	0.8	5.0			EEUFS1C512L	100	
	6200	16	25	3820	0.014	10000	0.8	7.5	7.5		EEUFS1C622( )	100	250
25	1200	10	20	2180	0.020	10000	0.6	5.0	5.0		EEUFS1E122( )	200	500
	2200	12.5	25	3190	0.015	10000	0.6	5.0	5.0		EEUFS1E222( )	200	500
	3300	12.5	35	3750	0.012	10000	0.8	5.0			EEUFS1E332L	100	
	3900	16	25	3820	0.014	10000	0.8	7.5	7.5		EEUFS1E392( )	100	250
35	330	8	15	1240	0.041	8000	0.6	3.5	5.0		EEUFS1V331L( )	200	1000
	820	10	20	2180	0.020	10000	0.6	5.0	5.0		EEUFS1V821( )	200	500
	1000	10	25	2470	0.018	10000	0.6	5.0	5.0		EEUFS1V102L( )	200	500
	1500	12.5	25	3190	0.015	10000	0.6	5.0	5.0		EEUFS1V152( )	200	500
	1800	16	20	3300	0.017	10000	0.8	7.5	7.5		EEUFS1V182S( )	100	250
	2700	16	25	3820	0.014	10000	0.8	7.5	7.5		EEUFS1V272( )	100	250
50	27	5	11	250	0.340	5000	0.5	2.0	5.0	2.5	EEUFS1H270( )	200	2000
	150	8	15	1140	0.045	8000	0.6	3.5	5.0		EEUFS1H151L( )	200	1000
	220	8	20	1430	0.033	9000	0.6	3.5	5.0		EEUFS1H221L( )	200	1000
	330	10	20	1890	0.023	10000	0.6	5.0	5.0		EEUFS1H331( )	200	500
	390	10	25	2150	0.022	10000	0.6	5.0	5.0		EEUFS1H391L( )	200	500
	680	12.5	25	3660	0.018	10000	0.6	5.0	5.0		EEUFS1H681( )	200	500
	820	12.5	30	3160	0.016	10000	0.8	5.0			EEUFS1H821L	100	
	1000	12.5	35	3270	0.014	10000	0.8	5.0			EEUFS1H102L	100	
	1200	16	25	3320	0.016	10000	0.8	7.5	7.5		EEUFS1H122( )	100	250

· When requesting taped product, please put the letter "B" or "H" between the "( )". Lead wire pitch ✻B=5 mm, 7.5 mm, H=2.5 mm.

· Please refer to the page of “Taping dimensions”.

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.