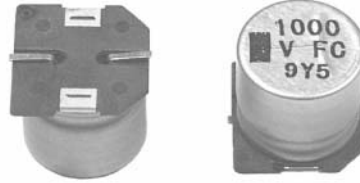


Surface Mount Type

Series : **FC**

Large Can Size

Low Impedance



Features

- Case size: $\phi 12.5 \times 16.5$ to $\phi 18 \times 21.5$
- Life time: 5000 hours at 105°C

Specifications

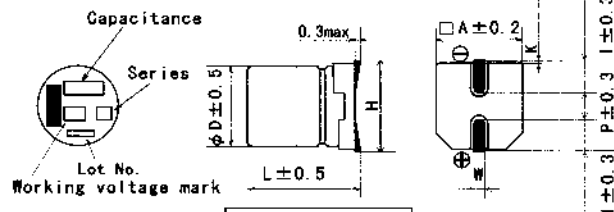
Operating Temp. Range	-40 to +105°C									
Rated W.V. Range	6.3 to 100 V .DC									
Nominal Cap. Range	47 to 6800 μ F									
Capacitance Tolerance	$\pm 20\%$ (120Hz/+20°C)									
Dissipation Factor (at 120Hz, 20°C)	W.V.	6.3	10	16	25	35	50	63	100	add 0.02 per 1000 μ F for values greater than 1000 μ F
	D.F.	0.22	0.19	0.16	0.14	0.12	0.10	0.08	0.07	
DC Leakage Current	$I \leq 0.01CV$ or $3(\mu A)$ after application of rated working voltage for 2 minutes at +20°C (whichever is greater).									
Impedance (Ω) at 100kHz	Case size	12.5x16.5L	16x16.5L	16x21.5L	18x16.5L	18x21.5L				
	6.3~35V	0.065	0.043	0.029	0.038	0.028				
	50V	0.110	0.080	0.048	0.068	0.042				
	63~100V	0.150	0.090	0.059	0.086	0.055				
Endurance	After applying DC voltage + specified ripple current (the sum of DC and ripple peak voltage should not exceed rated working voltage) for 5000hours at +105 $\pm 2^\circ$ C and then being stabilized at +20°C, capacitors shall meet the following limits.									
	Capacitance change	$\pm 20\%$ of the initial measured value								
	D.F.	$\leq 200\%$ of the initial specified value								
	DC leakage current	\leq initial specified value								
Shelf Life	After storage for 1000 hours at +105 $\pm 2^\circ$ C with no voltage applied and then being stabilized at +20°C, capacitors shall meet the limits specified in "Endurance". (With voltage treatment)									
Resistance to Soldering Heat	After reflow soldering (refer to Application Guidelines) and then being stabilized at +20°C, capacitor shall meet the following limits.									
	Capacitance change	$\pm 10\%$ of the initial measured value								
	D.F.	\leq initial specified value								
	DC leakage current	\leq initial specified value								

Marking

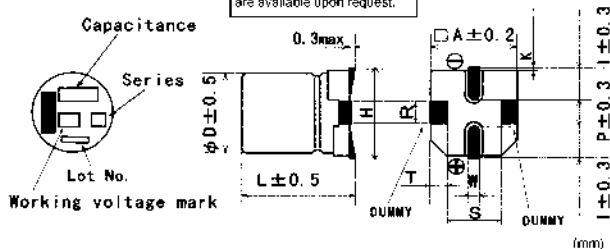
Dimensions in mm (not to scale)

Part Numbering System

Size code H



Size code J,K

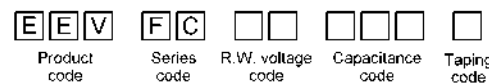


Case size ϕD	A	H	I	P	W	K	R	S	T
$\phi 12.5$	13.5	15.0 MAX	4.7	4.4	0.9 ± 0.3	0.7 ± 0.3	4.5	9.5	3.8
$\phi 16$	17.0	19.0 MAX	5.5	6.7	1.2 ± 0.3	0.7 ± 0.3	5.0	12.0	2.5
$\phi 18$	19.0	21.0 MAX	6.5	6.7	1.2 ± 0.3	0.7 ± 0.3	5.0	14.0	3.5

Case Size Code

H16 = $\phi 12.5 \times 16.5L$ J16 = $\phi 16 \times 16.5L$

K16 = $\phi 18 \times 16.5L$ K21 = $\phi 18 \times 21.5L$



R.W. voltage code	0J	1A	1C	1E	1V	1H	1J	2A	Q	W=32mm
R.W. voltage (V)	6.3	10	16	25	35	50	63	100	N	W=44mm

The first 2 figures are actual values and third denotes the number of zeros.

Standard Products

W.V.	6.3	10	16	25	35	50	63	100
Cap. (μ F)	(0J)	(1A)	(1C)	(1E)	(1V)	(1H)	(1J)	(2A)
47								H16
68							H16	H16
100							H16	J16
220						H16	J16	K16
330					H16	J16	K16	K21
470				H16	J16	K16	K21	
1000		H16	J16	K16	K16	K21		
2200	J16	J16	K16	K21	K21			
3300	K16	K16	K21					
4700	K21	K21						
6800	K21	K21						

■ Standard Products

W.V. [V.DC]	Cap. [μ F]	Part No.	L.C. [μ A] max	tan δ	Imp. [m Ω]	R.C. [mA rms]	Size [mm]	
							ϕ D	L
6.3	2200	EEVFC0J222N	139	0.24	43	1690	16	16.5
	3300	EEVFC0J332N	208	0.26	38	2000	18	16.5
	4700	EEVFC0J472N	296	0.28	28	2205	18	21.5
	6800	EEVFC0J682N	428	0.32	28	2490	18	21.5
10	1000	EEVFC1A102LQ	100	0.19	65	1205	12.5	16.5
	2200	EEVFC1A222N	220	0.21	43	1690	16	16.5
	3300	EEVFC1A332N	330	0.23	38	2000	18	16.5
	4700	EEVFC1A472N	470	0.25	28	2490	18	21.5
	6800	EEVFC1A682N	680	0.29	28	2490	18	21.5
16	1000	EEVFC1C102N	160	0.16	43	1690	16	16.5
	2200	EEVFC1C222N	352	0.18	38	2000	18	16.5
	3300	EEVFC1C332N	528	0.20	28	2490	18	21.5
25	470	EEVFC1E471LQ	118	0.14	65	1205	12.5	16.5
	1000	EEVFC1E102N	250	0.14	38	2000	18	16.5
	2200	EEVFC1E222N	550	0.16	28	2490	18	21.5
35	330	EEVFC1V331LQ	116	0.12	65	1205	12.5	16.5
	470	EEVFC1V471N	165	0.12	43	1690	16	16.5
	1000	EEVFC1V102N	350	0.12	38	2000	18	16.5
	2200	EEVFC1V222N	770	0.14	28	2490	18	21.5
50	220	EEVFC1H221LQ	110	0.10	110	1150	12.5	16.5
	330	EEVFC1H331N	165	0.10	80	1610	16	16.5
	470	EEVFC1H471N	235	0.10	68	1900	18	16.5
	1000	EEVFC1H102N	500	0.10	42	2420	18	21.5
63	68	EEVFC1J680Q	43	0.08	150	1020	12.5	16.5
	100	EEVFC1J101Q	63	0.08	150	1020	12.5	16.5
	220	EEVFC1J221N	139	0.08	90	1410	16	16.5
	330	EEVFC1J331N	208	0.08	86	1690	18	16.5
	470	EEVFC1J471N	296	0.08	55	2290	18	21.5
100	47	EEVFC2A470Q	47	0.07	150	511	12.5	16.5
	68	EEVFC2A680Q	68	0.07	150	511	12.5	16.5
	100	EEVFC2A101N	100	0.07	90	793	16	16.5
	220	EEVFC2A221N	220	0.07	86	917	18	16.5
	330	EEVFC2A331N	330	0.07	55	1230	18	21.5

tan δ = at 120Hz/+20°C, Ripple current = at 100kHz/+105°C, Impedance = at 100kHz/+20°C