



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Surface Mount Type

Series : **FC** Type : **V**
High temperature
Lead-Free reflow (suffix : A*)

Low impedance



Features

- Endurance : 105 °C 1000 h
- Low impedance (1/2 for HA series)
- Vibration-proof product is available upon request. ($\phi 8$ mm and larger)
- RoHS compliant

Specifications

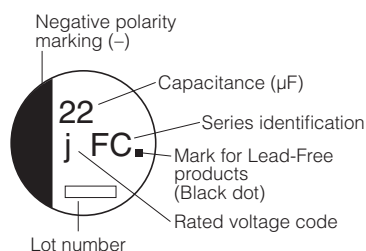
Category temperature range	-40 °C to +105 °C						
Rated voltage range	6.3 V.DC to 35 V.DC						
Capacitance range	1 μ F to 1500 μ F						
Capacitance tolerance	± 20 % (120 Hz/+20 °C)						
Leakage current	$I \leq 0.01$ CV or 3 (μ A) After 2 minutes (Whichever is greater)						
Dissipation factor (tan δ)	Please see the attached characteristics list						
Characteristics at low temperature	V.DC	6.3	10	16	25	35	(Impedance ratio at 120 Hz)
	Z(-25 °C) / Z(+20 °C)	2	2	2	2	2	
	Z(-40 °C) / Z(+20 °C)	3	3	3	3	3	
Endurance	After applying rated working voltage for 1000 hours at +105 °C ± 2 °C and then being stabilized at +20 °C, Capacitors shall meet the following limits.						
	Capacitance change	Within ± 20 % of the initial value					
	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)						
Resistance to soldering heat	After reflow soldering and then being stabilized at +20 °C, capacitors shall meet the following limits.						
	Capacitance change	Within ± 10 % of the initial value					
	tan δ	Within the initial limit					
	DC leakage current	Within the initial limit					
AEC-Q200	AEC-Q200 compliant						

Frequency correction factor for ripple current

Frequency (Hz)	50, 60	120	1 k	10 k	100 k to
Correction factor	0.70	0.75	0.90	0.95	1.00

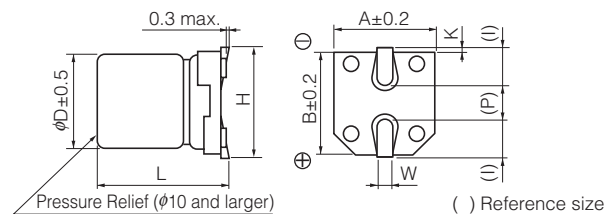
Marking

Example : 6.3 V.DC 22 μ F
 Marking color : BLACK



R. Voltage (V.DC)	6.3	10	16	25	35
Code	j	A	C	E	V

Dimensions



() Reference size
(Unit : mm)

Size code	ϕD	L	A, B	H	I	W	P	K
B	4.0	5.4 ^{+0.1} _{-0.2}	4.3	5.5 max.	1.8	0.65 \pm 0.1	1.0	0.35 ^{+0.15} _{-0.20}
C	5.0	5.4 ^{+0.1} _{-0.2}	5.3	6.5 max.	2.2	0.65 \pm 0.1	1.5	0.35 ^{+0.15} _{-0.20}
D	6.3	5.4 ^{+0.1} _{-0.2}	6.6	7.8 max.	2.6	0.65 \pm 0.1	1.8	0.35 ^{+0.15} _{-0.20}
E	8.0	6.2 \pm 0.3	8.3	9.5 max.	3.4	0.65 \pm 0.1	2.2	0.35 ^{+0.15} _{-0.20}
F	8.0	10.2 \pm 0.3	8.3	10.0 max.	3.4	0.90 \pm 0.2	3.1	0.70 \pm 0.2
G	10.0	10.2 \pm 0.3	10.3	12.0 max.	3.5	0.90 \pm 0.2	4.6	0.70 \pm 0.2

Characteristics list

Endurance : 105 °C 1000 h

Rated voltage (V.DC)	Cap. (±20 %) (μF)	Case size (mm)		Size code	Specification			Part No.	Reflow	Min. Packaging Q'ty
		φD	L		Ripple current (100 kHz) (+105 °C) (mA r.m.s.)	Impedance (100 kHz) (+20 °C) (Ω)	tan δ (120 Hz) (+20 °C)			
6.3	22	4	5.4	B	60	3.00	0.26	EEEFC0J220AR	(5)	2000
	47	5	5.4	C	95	1.80	0.26	EEEFC0J470AR	(5)	1000
	68	6.3	5.4	D	140	1.00	0.26	EEEFC0J680AP	(5)	1000
	100	6.3	5.4	D	140	1.00	0.26	EEEFC0J101AP	(5)	1000
	220	8	6.2	E	230	0.40	0.26	EEEFC0J221AP	(6)	1000
	330	8	10.2	F	450	0.30	0.26	EEEFC0J331AP	(6)	500
	1000	10	10.2	G	670	0.15	0.26	EEEFC0J102AP	(6)	500
	1500	10	10.2	G	670	0.15	0.26	EEEFC0J152AP	(6)	500
10	33	5	5.4	C	95	1.80	0.19	EEEFC1A330AR	(5)	1000
	100	8	6.2	E	230	0.40	0.19	EEEFC1A101AP	(6)	1000
	150	8	6.2	E	230	0.40	0.19	EEEFC1A151AP	(6)	1000
	220	8	10.2	F	450	0.30	0.19	EEEFC1A221AP	(6)	500
	470	10	10.2	G	670	0.15	0.19	EEEFC1A471AP	(6)	500
	1000	10	10.2	G	670	0.15	0.19	EEEFC1A102AP	(6)	500
16	10	4	5.4	B	60	3.00	0.16	EEEFC1C100AR	(5)	2000
	22	5	5.4	C	95	1.80	0.16	EEEFC1C220AR	(5)	1000
	47	6.3	5.4	D	140	1.00	0.16	EEEFC1C470AP	(5)	1000
	68	8	6.2	E	230	0.40	0.16	EEEFC1C680AP	(6)	1000
	100	8	6.2	E	230	0.40	0.16	EEEFC1C101AP	(6)	1000
	220	10	10.2	G	670	0.15	0.16	EEEFC1C221AP	(6)	500
	330	10	10.2	G	670	0.15	0.16	EEEFC1C331AP	(6)	500
	470	10	10.2	G	670	0.15	0.16	EEEFC1C471AP	(6)	500
	680	10	10.2	G	670	0.15	0.16	EEEFC1C681AP	(6)	500
25	6.8	4	5.4	B	60	3.00	0.14	EEEFC1E6R8AR	(5)	2000
	22	6.3	5.4	D	140	1.00	0.14	EEEFC1E220AP	(5)	1000
	33	6.3	5.4	D	140	1.00	0.14	EEEFC1E330AP	(5)	1000
	47	8	6.2	E	230	0.40	0.14	EEEFC1E470AP	(6)	1000
	68	8	10.2	F	450	0.30	0.14	EEEFC1E680AP	(6)	500
	100	8	10.2	F	450	0.30	0.14	EEEFC1E101AP	(6)	500
	220	10	10.2	G	670	0.15	0.14	EEEFC1E221AP	(6)	500
	330	10	10.2	G	670	0.15	0.14	EEEFC1E331AP	(6)	500
	470	10	10.2	G	670	0.15	0.14	EEEFC1E471AP	(6)	500
35	1	4	5.4	B	60	3.00	0.12	EEEFC1V1R0AR	(5)	2000
	2.2	4	5.4	B	60	3.00	0.12	EEEFC1V2R2AR	(5)	2000
	3.3	4	5.4	B	60	3.00	0.12	EEEFC1V3R3AR	(5)	2000
	4.7	4	5.4	B	60	3.00	0.12	EEEFC1V4R7AR	(5)	2000
	6.8	5	5.4	C	95	1.80	0.12	EEEFC1V6R8AR	(5)	1000
	10	5	5.4	C	95	1.80	0.12	EEEFC1V100AR	(5)	1000
	22	6.3	5.4	D	140	1.00	0.12	EEEFC1V220AP	(5)	1000
	33	8	6.2	E	230	0.40	0.12	EEEFC1V330AP	(6)	1000
	47	8	6.2	E	230	0.40	0.12	EEEFC1V470AP	(6)	1000
	100	10	10.2	G	670	0.15	0.12	EEEFC1V101AP	(6)	500
	220	10	10.2	G	670	0.15	0.12	EEEFC1V221AP	(6)	500
	330	10	10.2	G	670	0.15	0.12	EEEFC1V331AP	(6)	500

· Please refer to the page of "Reflow Profile" and "The Taping Dimensions".

· When requesting vibration-proof product, please put the last "V" instead to "P"