

F72 Low Profile
Conformal
coated Chip

Upgrade

F75 Maximum CV
Conformal
coated Chip

FRAMELESS™



For SMD

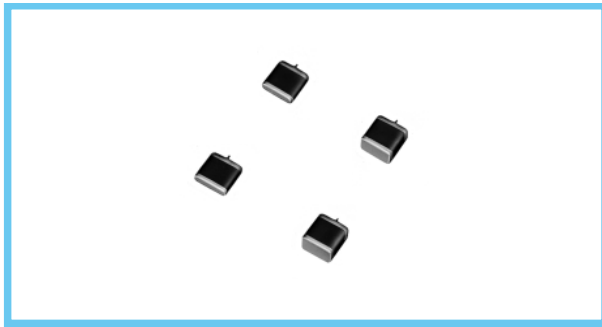


Smaller



For High
Frequency

● Adapted to the RoHS directive (2002/95/EC).



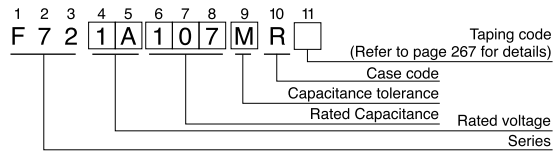
Specifications

Item	Performance Characteristics			
Category	-55 ~ +125°C (Rated temperature : +85°C)			
Temperature Range	-55 ~ +125°C (Rated temperature : +85°C)			
Capacitance Tolerance	±20%, ±10% (at 120Hz)			
Dissipation Factor (120Hz)	F72		F75	
	33~68μF	6%Max.	68~330μF	10%Max.
	100μF~	8%Max.	470μF	14%Max.
	150μF	10%Max.	680μF	18%Max.
ESR (100kHz)	220μF~330μF	12%Max.	1000μF	24%Max.
			1500μF	30%Max.
			2200μF	45%Max.
Leakage Current	33μF	0.90Ω	~150μF	0.22Ω
	47μF	0.80Ω	220μF	0.20Ω
	68μF	0.75Ω	330μF	0.15Ω
	100μF~	0.70Ω	470~1500μF	0.12Ω
Capacitance Change by Temperature			2200μF	0.07Ω
Damp Heat	At 40°C, 90~95% R.H., For 500 hours (No voltage applied)			
	Capacitance Change Within ±10% of initial value			
	Dissipation Factor Initial specified value or less			
Temperature Cycles	At -55°C / +125°C, 30 minutes each, For 5 cycles,			
	Capacitance Change Within ±5% of initial value			
	Dissipation Factor Initial specified value or less			
Resistance to Soldering Heat	Leakage Current Initial specified value or less			
	Reflow at 260°C for 10 seconds, Dipping Flow at 260°C for 10 seconds			
	Capacitance Change Within ±5% of initial value			
Surge*	Dissipation Factor Initial specified value or less			
	Leakage Current Initial specified value or less			
	After application of surge in series with a 33Ω resistor at the rate of 30 seconds ON, 30 seconds OFF, for 1000 successive test cycles at 85°C, capacitors meet the characteristics requirements listed below.			
Endurance*	Capacitance Change Within ±5% of initial value			
	Dissipation Factor Initial specified value or less			
	Leakage Current Initial specified value or less			
Shear Test	After 2000 hours' application of rated voltage at 85°C, or derated voltage at 125°C, capacitors meet the characteristic requirements listed below.			 5N (0.51kg·f) For 10 ± 1 seconds
	Capacitance Change Within ±10% of initial value			
Terminal Strength	Dissipation Factor Initial specified value or less			 R230 45 45 1mm
	Leakage Current Initial specified value or less			
Keeping a capacitor surface-mounted on a substrate upside down and supporting the substrate at both of the opposite bottom points 45mm apart from the center of the capacitor, the pressure strength is applied with a specified jig at the center of the substrate so that the substrate may bend by 1mm as illustrated. Then, there shall be found no remarkable abnormality on the capacitor terminals.				

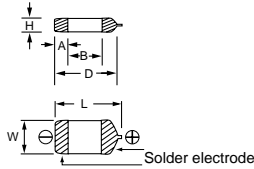
* As for the surge and derated voltage at 125°C, refer to page 266 for details.

F72

■ Type numbering system (Example : 10V 100μF)



Drawing



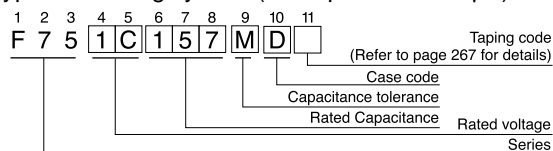
Dimensions

Case code	L	W	H	A	B	(D)
R	7.2 ± 0.3	6.0 ± 0.3	1.2 ± 0.3	1.3 ± 0.4	3.8 ± 0.6	(6.2)

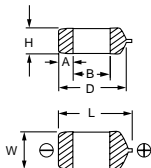
D dimension only for reference

F75

■ Type numbering system (Example : 16V 150μF)



Drawing



Dimensions

Case code	L	W	H	A	B	(D)
C	7.1 ± 0.3	3.2 ± 0.3	2.5 ± 0.3	1.3 ± 0.3	3.6 ± 0.6	(6.0)
D	7.3 ± 0.3	4.3 ± 0.3	2.8 ± 0.3	1.3 ± 0.4	3.9 ± 0.6	(6.4)
R	7.2 ± 0.3	6.0 ± 0.3	3.5 ± 0.3	1.3 ± 0.4	3.8 ± 0.6	(6.2)

D dimension only for reference

Standard ratings

Cap.(μF)	Code	V			
		4	6.3	10	16
33	336	OG	OJ	1A	1C
47	476			R	R
68	686		R	R	R
100	107	R	R	R	
150	157	R	R	R	
220	227	R	R	R	
330	337	R	R	(R)	

Cap.(μF)	Code	V			
		4	6.3	10	16
68	686	OG	OJ	1A	1C
100	107				C
150	157			C	D
220	227		C	C · D	R
330	337	C	C · D	D	
470	477	C · D	D	R	
680	687	D	D · R		
1000	108	D · R	R		
1500	158	R			
2200	228	R			