

Conductive polymer type / Surface mount type

RoHS compliance

SVPF Series

New



High voltage
High capacitance

This is the high voltage type capacitors of SVPC series.
Please use them in a high voltage line, for example, input of DCDC converter.

SVPC

SVPF
High voltage
High capacitance

Specifications

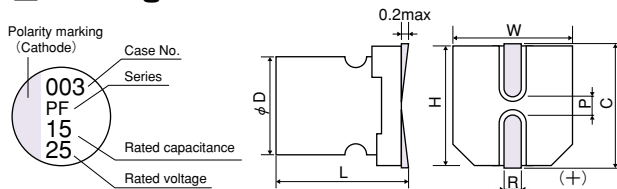
Items	Condition	Specifications	
Rated voltage (V)	—	25	
Surge voltage (V)	Room temperature	29	
Category temperature range (°C)	—	-55 to +105	
Capacitance tolerance (%)	120Hz/20°C	M : ±20	
Dissipation Factor (DF)	120Hz/20°C	Please see the attached characteristics list	
Leakage current*1	Rated voltage applied, after 2 minutes	Please see the attached characteristics list	
Equivalent series resistance (ESR)	100kHz to 300kHz/20°C	Please see the attached characteristics list	
Characteristics of impedance ratio at high temp. and low temp.	Based the value at 100kHz, +20°C	-55°C Z/Z _{20°C}	0.75 to 1.25
		+105°C Z/Z _{20°C}	0.75 to 1.25
Endurance	105°C, 2,000h, Rated voltage applied	ΔC/C	Within ±20% of the initial value
		DF	Within 1.5 times of the initial limit
		ESR	Within 1.5 times of the initial limit
		LC	Within the initial limit
Damp heat(Steady state)	60°C, 90 to 95%RH, 1,000h, No-applied voltage	ΔC/C	Within ±20% of the initial value
		DF	Within 1.5 times of the initial limit
		ESR	Within 1.5 times of the initial limit
		LC	Within the initial limit (after voltage processing)
Resistance to soldering heat*2	VPS (230°C X 75s)	ΔC/C	Within ±10% of the initial value
		DF	Within 1.3 times of the initial limit
		ESR	Within 1.3 times of the initial limit
		LC	Within the initial limit (after voltage processing)

*1 When measured values are questionable, measure after voltage processing mentioned below.

Voltage processing: Apply voltage for 120 minutes at 105°C.

*2 Please refer to page 12 for reflow soldering conditions.

Marking and dimensions



(unit : mm)

Size code	φD ±0.5	L ^{+0.1} / _{-0.4}	W ±0.2	H ±0.2	C ±0.2	R	P ±0.2
C45	6.3	4.4	6.6	6.6	7.3	0.6 to 0.8	2.1
C6	6.3	5.9	6.6	6.6	7.3	0.6 to 0.8	2.1

Size list

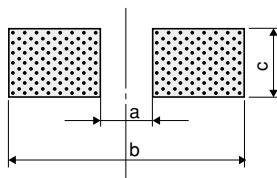
RV : Rated voltage

μF	RV
15	25
47	C45
	C6

SVPF series characteristics list

Size code	Part number	Rated voltage (V)	Rated capacitance (μF)	ESR(mΩ) (max) 100kHz to 300kHz / 20°C	Allowable ripple current 100kHz(mArms)	DF (% max)	Leakage current (μA)(max) After 2 minutes
C45	25SVPF15M	25	15	55	1650	12	75
C6	25SVPF47M	25	47	30	2500	12	235

Recommended land pattern dimension of PWB



(unit : mm)

Size code	a	b	c
C45	2.1	9.1	1.6
C6	2.1	9.1	1.6

Frequency coefficient for ripple current

Frequency	120Hz ≤ f < 1kHz	1kHz ≤ f < 10kHz	10kHz ≤ f < 100kHz	100kHz ≤ f ≤ 500kHz
Coefficient	0.05	0.3	0.7	1