



The SVPE series is designed to have even lower ESR than the SVPC series.

Adopt this series to reduce the size of equipment and circuits.

This product can support lead free-reflow.*2

Specifications

Items	Condition	Specifications					
Rated voltage (V)	—	2.0	2.5	6.3	10 16		
Surge voltage (V)	Room temperature	2.6	3.3	8.2	12 18		
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/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}	+105°C Z/Z _{20°C}	0.75 to 1.25			
Endurance	105°C, 2,000h, Rated voltage applied	△C/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	△C/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)	△C/C	Within ±10% of the initial value (±15% for 2.5V)				
		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)				

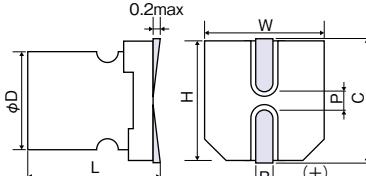
*1 When measured values are questionable, measure after voltage processing mentioned below.

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

*2 Please refer to page 26 for reflow soldering conditions.

Marking and dimensions

Polarity marking (Cathode)
Case No.
Series
(B6, C6, C10
size is PE
F12 size is SVPE)
Rated capacitance
Rated voltage



(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
B6	5.0	5.9	5.3	5.3	6.0	0.6 to 0.8	1.4
C6	6.3	5.9	6.6	6.6	7.3	0.6 to 0.8	2.1
C10	6.3	9.9	6.6	6.6	7.3	0.6 to 0.8	2.1
F12	10.0	12.6	10.3	10.3	11.0	0.8 to 1.1	4.6

Size list

RV:Rated voltage

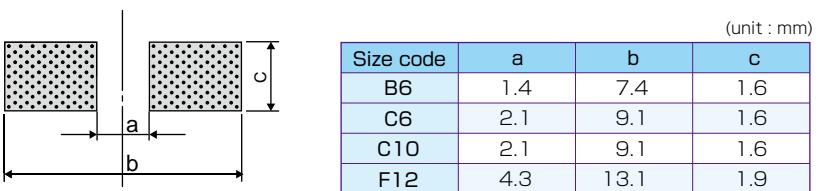
μF	RV 2.0	2.5	6.3	10	16
150			B6		
180			B6		C10
220			B6,C6	C6	
270		B6			
330		B6			
390		B6,C6			
470				F12	
1200	C10				

SVPE series characteristics list

Size code	Part number	Rated voltage (V)	Rated capacitance (μ F)	ESR (m Ω) (max)		Rated ripple current 100kHz (mArms) at 105°C	DF (% max)	Leakage current (μ A)(max) After 2 minutes
				100kHz/20°C	300kHz/20°C ^{※1}			
B6	6SVPE150M	6.3	150	12	10	3520	12	500
	6SVPE180M	6.3	180	15	13	3150	12	500
	6SVPE220MW	6.3	220	15	13	3150	12	500
	2R5SVPE270M	2.5	270	10	9	3860	12	500
	2R5SVPE330M	2.5	330	15	13	3150	12	500
	2R5SVPE330MY	2.5	330	10	9	3860	12	500
C6	10SVPE220M	10	220	20	18	2700	12	500
	6SVPE220M	6.3	220	10	9	3900	12	500
	2R5SVPE390M	2.5	390	10	9	3900	12	500
C10	16SVPE180M	16	180	11	10	4460	12	576
	2SVPE1200M	2.0	1200	8	8	5230	12	500
F12	16SVPE470M	16	470	10	9	6100	12	1504

※1 The ESR value in 300kHz is a reference one.

Recommended land pattern dimension of PWB



Frequency coefficient for ripple current

Frequency	$120\text{Hz} \leq f < 1\text{kHz}$	$1\text{kHz} \leq f < 10\text{kHz}$	$10\text{kHz} \leq f < 100\text{kHz}$	$100\text{kHz} \leq f \leq 500\text{kHz}$
Coefficient	0.05	0.3	0.7	1

※ Red letters : New models