

## Surface Mount Type



Series : **SVPF**



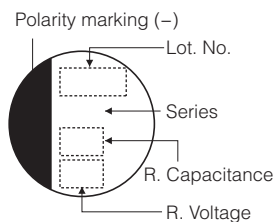
### Features

- High voltage (50 V.DC max.)
- Large capacitance (1000  $\mu$ F max.)
- 105 °C 5000 h
- RoHS compliance, Halogen free

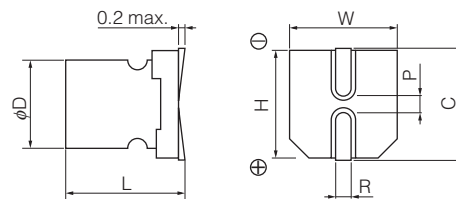
### Specifications

Size code	B6	C6	E7	E10	E12	F12
Category temperature range	-55 °C to +105 °C					
Rated voltage range	16 V.DC to 25 V.DC	16 V.DC to 50 V.DC		16 V.DC	16 V.DC to 50 V.DC	
Rated capacitance range	27 $\mu$ F to 82 $\mu$ F	10 $\mu$ F to 180 $\mu$ F	18 $\mu$ F to 270 $\mu$ F	560 $\mu$ F	39 $\mu$ F to 560 $\mu$ F	68 $\mu$ F to 1000 $\mu$ F
Capacitance tolerance	$\pm$ 20 % (120 Hz / + 20 °C)					
Leakage current	Please see the attached characteristics list					
Dissipation factor (tan $\delta$ )	Please see the attached characteristics list					
Endurance	+105 °C, 5000 h, rated voltage applied					
	Capacitance change	Within $\pm$ 20 % of the initial value				
	tan $\delta$	$\leq$ 150 % of the initial limit				
	DC leakage current	Within the initial limit				
Damp heat (Steady State)	+60 °C, 90 % to 95 %, 1000 h, No-applied voltage					
	Capacitance change	Within $\pm$ 20 % of the initial value				
	tan $\delta$	$\leq$ 150 % of the initial limit				
	DC leakage current	Within the initial limit (after voltage processing)				

### Marking



### Dimensions (not to scale)



Unit : mm

Size code	$\phi D \pm 0.5$	$L \begin{smallmatrix} +0.1 \\ -0.4 \end{smallmatrix}$	$W \pm 0.2$	$H \pm 0.2$	$C \pm 0.2$	R	$P \pm 0.2$
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
E7	8.0	6.9	8.3	8.3	9.0	0.6 to 0.8	3.2
E10	8.0	10.0 ( $\pm 0.5$ )	8.3	8.3	9.0	0.8 to 1.1	3.2
E12	8.0	11.9	8.3	8.3	9.0	0.8 to 1.1	3.2
F12	10.0	12.6	10.3	10.3	11.0	0.8 to 1.1	4.6

\* Externals of figure are the reference.

## Characteristics list

Series	Rated voltage (V.DC)	Rated capacitance (μF)	Case size (mm)		Size code	Specifications				Standard (Reel size : φ380)	
			φD	L		Ripple current* <sup>1</sup> (mAr.m.s.)	ESR* <sup>2</sup> (mΩ max.)	tan δ* <sup>3</sup>	LC* <sup>4</sup> (μA)	Part number	Min. Packaging Qty (pcs)
SVPF	16	82	5.0	5.9	B6	3000	27	0.12	262	16SVPF82M	1500
		180	6.3	5.9	C6	3300	22	0.12	576	16SVPF180M	1000
		270	8.0	6.9	E7	3300	22	0.12	864	16SVPF270M	1000
		560	8.0	10.0	E10	3900	18	0.12	1792	16SVPF560MX	500
			8.0	11.9	E12	4950	14	0.12	1792	16SVPF560M	400
		1000	10.0	12.6	F12	5400	12	0.12	3200	16SVPF1000M	400
	20	56	5.0	5.9	B6	2800	30	0.12	224	20SVPF56MX	1500
		120	6.3	5.9	C6	3200	25	0.12	480	20SVPF120M	1000
		180	8.0	6.9	E7	3200	25	0.12	720	20SVPF180M	1000
		390	8.0	11.9	E12	4950	14	0.12	1560	20SVPF390M	400
		560	10.0	12.6	F12	5400	12	0.12	2240	20SVPF560M	400
	25	27	5.0	5.9	B6	2450	40	0.12	135	25SVPF27MX	1500
		47	6.3	5.9	C6	2800	30	0.12	235	25SVPF47M	1000
		56	6.3	5.9		2800	30	0.12	280	25SVPF56M	1000
		82	8.0	6.9	E7	3000	28	0.12	410	25SVPF82M	1000
		100	8.0	6.9		3200	24	0.12	500	25SVPF100M	1000
		180	8.0	11.9	E12	4650	16	0.12	900	25SVPF180M	400
		330	10.0	12.6	F12	5000	14	0.12	1650	25SVPF330M	400
	35	22	6.3	5.9	C6	2600	35	0.12	154	35SVPF22M	1000
		39	8.0	6.9	E7	2800	30	0.12	273	35SVPF39M	1000
		82	8.0	11.9	E12	4000	20	0.12	574	35SVPF82M	400
		120	10.0	12.6	F12	4400	18	0.12	840	35SVPF120M	400
	50	10	6.3	5.9	C6	2500	40	0.12	100	50SVPF10M	1000
		18	8.0	6.9	E7	2700	35	0.12	180	50SVPF18M	1000
		39	8.0	11.9	E12	3800	25	0.12	390	50SVPF39M	400
		68	10.0	12.6	F12	4300	20	0.12	680	50SVPF68M	400

\*1 Ripple current (100 kHz/ +105 °C), \*2 ESR (100 kHz to 300 kHz/+20 °C) \*3 tan δ (120 Hz/+20 °C) \*4 After 2 minutes  
 ◆ Please refer to each page in this catalog for "Reflow conditions" and "Taping specifications".

## Frequency correction factor for ripple current

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