# Panasonic Conductive Polymer Hybrid Aluminum Electrolytic Capacitors

### Surface Mount Type Series: **SVPK**



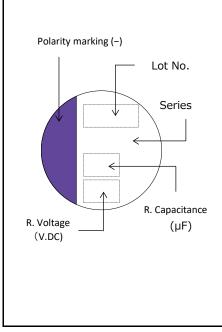
#### **Features**

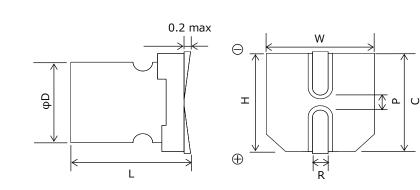
- High voltage (50 V.DC max.)
- 125 ℃ 1000 h
- RoHS compliance, Halogen free

Specifications									
Size code	B6	C6	E7	E12	F12				
Category temp. range	−55 ℃ to +125 ℃								
Rated voltage range	16 V.DC to 50 V.DC								
Nominal cap.range	10 µF to 100 µF	22 $\mu F$ to 220 $\mu F$	33 µF to 330 µF	68 µF to 680 µF	$120\mu F$ to $1200\mu F$				
Capacitance tolerance	±20 % (120 Hz / +20 ℃)								
DC leakage current	Please see the attached characteristics list								
Dissipation factor (tan $\delta)$	Please see the attached characteristics list								
Endurance	+125 ℃, 1000 h, rated voltage applied								
	Capacitance cha	inge Within ±2	Within ±20 % of the initial value						
	Dissipation factor (tan $\delta$ ) $\leq$ 200 % of the initial limit								
	DC leakage curr	rent Within the	Within the initial limit						
	+60 $^{\circ}$ , 90 % to 95 %, 1000 h, No-applied voltage								
	Capacitance change Within ±20 % of the initial value								
	Dissipation factor (tan $\delta$ ) $\leq$ 150 % of the initial limit								
	DC leakage curr	rent Within the	e initial limit (after	voltage processin	g)				

#### Marking

#### Dimensions (not to scale)





							Unit : mm
Size code	$\phi D \pm 0.5$	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	0.6~0.8	1.4
C6	6.3	5.9	6.6	6.6	7.3	0.6~0.8	2.1
E7	8.0	6.9	8.3	8.3	9.0	0.6~0.8	3.2
E12	8.0	11.9	8.3	8.3	9.0	0.8~1.1	3.2
F12	10.0	12.6	10.3	10.3	11.0	0.8~1.1	4.6
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Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

## Panasonic Conductive Polymer Hybrid Aluminum Electrolytic Capacitors

Characteristics list											
	Rated cap. (±20 %) (µF)	Case size (mm)			Specifications				Standard (Reel size : $\phi$ 380)		
Rated vol. (V.DC)		φD	L	Size code	Ripple current <sup>*1</sup> (mA r.m.s.)	(mA r.m.s.)	ESR <sup>*2</sup> (mΩ)	tan $\delta^{*3}$	LC <sup>*4</sup> (µA)	Part number	Min. Packaging Q'ty (pcs)
NEW	100	5.0	5.9	B6	940	3000	27	0.12	320	16SVPK100M	1500
NEW	220	6.3	5.9	C6	1040	3300	22	0.12	704	16SVPK220M	1000
16	330	8.0	6.9	E7	1040	3300	22	0.12	1056	16SVPK330M	1000
	680	8.0	11.9	E12	1560	4950	14	0.12	2176	16SVPK680M	400
	1200	10.0	12.6	F12	1700	5400	12	0.12	3840	16SVPK1200M	400
	68	5.0	5.9	B6	880	2800	30	0.12	272	20SVPK68M	1500
NEW	150	6.3	5.9	C6	1010	3200	25	0.12	600	20SVPK150M	1000
20	220	8.0	6.9	E7	1010	3200	25	0.12	880	20SVPK220M	1000
	470	8.0	11.9	E12	1560	4950	14	0.12	1880	20SVPK470M	400
	680	10.0	12.6	F12	1700	5400	12	0.12	2720	20SVPK680M	400
-	33	5.0	5.9	B6	820	2600	35	0.12	165	25SVPK33M	1500
	82	6.3	5.9	C6	960	3060	25	0.12	410	25SVPK82M	1000
25	90	6.3	5.9	C6	960	3060	25	0.12	450	25SVPK90M	1000
25	120	8.0	6.9	E7	1010	3200	24	0.12	600	25SVPK120M	1000
-	270	8.0	11.9	E12	1470	4650	16	0.12	1350	25SVPK270M	400
	470	10.0	12.6	F12	1590	5000	14	0.12	2350	25SVPK470M	400
35	22	5.0	5.9	B6	820	2600	35	0.12	154	35SVPK22M	1500
	47	6.3	5.9	C6	930	2950	27	0.12	329	35SVPK47M	1000
	82	8.0	6.9	E7	960	3060	25	0.12	574	35SVPK82M	1000
	180	8.0	11.9	E12	1260	4000	20	0.12	1260	35SVPK180M	400
-	330	10.0	12.6	F12	1390	4400	18	0.12	2310	35SVPK330M	400
50	10	5.0	5.9	B6	550	1750	80	0.12	100	50SVPK10M	1500
	22	6.3	5.9	C6	820	2600	35	0.12	220	50SVPK22M	1000
	33	8.0	6.9	E7	850	2700	35	0.12	330	50SVPK33M	1000
	68	8.0	11.9	E12	1200	3800	25	0.12	680	50SVPK68M	400
	120	10.0	12.6	F12	1350	4300	20	0.12	1200	50SVPK120M	400

\*1: Ripple current (100 kHz / +105 °C < Tx  $\leq$  +125 °C) /Allowable ripple current (100 kHz / Tx  $\leq$  +105 °C)

\*2: ESR (100 kHz to 300 kHz / +20  $^{\circ}\mathrm{C})$ 

\*3: tan  $\delta$  (120 Hz / +20  $^{\circ}\mathrm{C})$ 

\*4: After 2 minutes

• Please refer to each page in this catarog for "Reflow conditions" and "Taping specifications".

Frequency correction factor for ripple current								
Frequency(f)	120 Hz ≦ f< 1 kHz	1 kHz ≦ f< 10 kHz	10 kHz ≦ f< 100 kHz	100 kHz $\leq$ f < 500 kHz				
Coefficient	0.05	0.3	0.7	1				

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