Panasonic Conductive Polymer Aluminum Solid Capacitors

Surface Mount Type

SVF series





UPGRADE

Features

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

Specifications

B6	C6	E7	E12	F10	F12		
e -55 °C to +125 °C							
16 to 25		16 to 50	16	16 to 50			
27 to 82	10 to 180	0 to 180 18 to 270 39 to 5		1000	68 to 1000		
±20 % (120 Hz / +20 ℃)							
Please see the attached characteristics list							
Please see the attached characteristics list							
+125 $^{\circ}$ 1000 h, rated voltage applied							
Capacitanc	e change 🛛 🛚	Within ± 20 % of the initial value					
Dissipation fa	ictor (tanδ)	\leq 200 % of the initial limit					
DC leakage current Within the initial limit							
+60 ℃, 90 % to 95 %, 1000 h, No-applied voltage							
Capacitanc	e change 🛛 🛚	Within ± 20 % of the initial value					
Dissipation fa	ictor (tanδ)	\leq 150 % of the initial limit					
DC leakage	e current 🛛 🛚	Within the initial limit (after voltage processing)					
	16 to 25 27 to 82 +125 ℃ 100 Capacitanc Dissipation fa DC leakage +60 ℃, 90 % Capacitanc Dissipation fa	16 to 25 27 to 82 10 to 180 27 to 82 10 to 180 +125 °C 1000 h, rated ∨ PI +125 °C 1000 h, rated ∨ VI Capacitance change VI Dissipation factor (tanð) ≤ DC leakage current VI +60 °C, 90 % to 95 %, 100 Capacitance change VI Dissipation factor (tanð) ≤	$\begin{array}{c c c c c c c c } -55 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	-55 °C to +125 °C16 to 2516 to 5027 to 8210 to 18018 to 27039 to 560 $\pm 20 \% (120 \text{ Hz } / +20 °C)$ $\pm 20 \% (120 \text{ Hz } / +20 °C)$ Please see the attached characterissPlease see the attached characteriss+125 °C 1000 h, rated voltage appliedCapacitance changeWithin $\pm 20 \%$ of the initial valueDissipation factor (tan δ) $\leq 200 \%$ of the initial limitDC leakage currentWithin the initial limit $+60 °C$, 90% to 95% , 1000 h, No-applied voltageCapacitance changeWithin $\pm 20 \%$ of the initial valueDissipation factor (tan δ) $\leq 150 \%$ of the initial limit	$\begin{array}{ c c c } -55 \ \ensuremath{\mathbb{C}}\ to +125 \ \ensuremath{\mathbb{C}}\ to 25 & 16 \ to 50 & 16 \ \ensuremath{\mathbb{C}}\ \\ \hline 16 \ to 25 & 10 \ to 180 & 18 \ to 270 & 39 \ to 560 & 1000 \ \\ \hline \pm 20 \ \ensuremath{\mathbb{C}}\ (120 \ \mbox{Hz}\ /\ +20 \ \ensuremath{\mathbb{C}}\) \\ \hline \pm 20 \ \ensuremath{\mathbb{C}}\ (120 \ \mbox{Hz}\ /\ +20 \ \ensuremath{\mathbb{C}}\) \\ \hline +125 \ \ensuremath{\mathbb{C}}\ 1000 \ \mbox{h, rated} \ \ensuremath{\sim}\ \ensuremath{\mathbb{C}}\ \ensure$		

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 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
E12	8.0	11.9	8.3	8.3	9.0	0.8 to 1.1	3.2
F10	10.0	10.0^{*1}	10.3	10.3	11.0	0.8 to 1.1	4.6
F12	10.0	12.6	10.3	10.3	11.0	0.8 to 1.1	4.6
*1:±0.5							

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Characteristics list											
	Rated cap. (±20 %) (µF)	Case size (mm)			Specifications					Standard (Reel size : ϕ 380)	
Rated volt. (V.DC)		φD	L	Size code	Ripple current ^{*1} (mA r.m.s.)	Allowable ripple current ^{*1} (mA r.m.s.)	ESR ^{*2} (mΩ)	tan δ^{*3}	LC ^{*4} (µA)	Part number	Min. Packaging Q'ty (pcs)
	82	5.0	5.9	B6	940	3000	27	0.12	262	16SVF82M	1500
	180	6.3	5.9	C6	1040	3300	22	0.12	576	16SVF180M	1000
16	270	8.0	6.9	E7	1040	3300	22	0.12	864	16SVF270M	1000
10	560	8.0	11.9	E12	1560	4950	14	0.12	1792	16SVF560M	400
NE	W 1000	10.0	10.0	F10	1350	4300	16	0.12	3200	16SVF1000MX	500
	1000	10.0	12.6	F12	1700	5400	12	0.12	3200	16SVF1000M	400
20	56	5.0	5.9	B6	880	2800	30	0.12	224	20SVF56M	1500
	120	6.3	5.9	C6	1010	3200	25	0.12	480	20SVF120M	1000
	180	8.0	6.9	E7	1010	3200	25	0.12	720	20SVF180M	1000
	390	8.0	11.9	E12	1560	4950	14	0.12	1560	20SVF390M	400
	560	10.0	12.6	F12	1700	5400	12	0.12	2240	20SVF560M	400
	27	5.0	5.9	B6	770	2450	40	0.12	135	25SVF27M	1500
	47	6.3	5.9	C6	880	2800	30	0.12	235	25SVF47M	1000
	56	6.3	5.9		880	2800	30	0.12	280	25SVF56M	1000
25	82	8.0	6.9	E7	940	3000	28	0.12	410	25SVF82M	1000
	100	8.0	6.9	L/	1010	3200	24	0.12	500	25SVF100M	1000
	180	8.0	11.9	E12	1470	4650	16	0.12	900	25SVF180M	400
	330	10.0	12.6	F12	1580	5000	14	0.12	1650	25SVF330M	400
35	22	6.3	5.9	C6	820	2600	35	0.12	154	35SVF22M	1000
	39	8.0	6.9	E7	880	2800	30	0.12	273	35SVF39M	1000
	82	8.0	11.9	E12	1260	4000	20	0.12	574	35SVF82M	400
	120	10.0	12.6	F12	1390	4400	18	0.12	840	35SVF120M	400
50	10	6.3	5.9	C6	790	2500	40	0.12	100	50SVF10M	1000
	18	8.0	6.9	E7	850	2700	35	0.12	180	50SVF18M	1000
50	39	8.0	11.9	E12	1200	3800	25	0.12	390	50SVF39M	400
	68	10.0	12.6	F12	1350	4300	20	0.12	680	50SVF68M	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 δ (120 Hz / +20 °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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