OS-CON Line-up

Guidelines and precautions for use
Series system diagram

Image of case size

soldering condition Fundamental

SVPS SVPD

SVPA SVQP SVP

SEPF SEPC SEQP

Catalog Deletion and EOL series

Characteristics
Reliability
SVPF
SVPE

Products list

guide

Selection

data

Technical

Surface mount type

Radial lead type

Surface SVPC Series

RoHS compliance

Large capacitance

Super low ESR

The SVPC series is designed as the larger capacitance version of the SVPA series. Adopt this series to reduce the size of equipment and circuits. This product can support lead free-reflow.*2

(unit: mm)

Specifications

Items	Items Condition					Specifications			
Rated voltage (V)	_		2.5	4.0	6.3	10	16		
Surge voltage (V)	Room tempera	ature		3.3	5.2	8.2	12	18	
Category temperature range (C)	_				-	-55 to +105	5		
Capacitance tolerance (%)	120Hz/20	°C				M: ±20			
Dissipation Factor (DF)	120Hz/20	°C		Plea	ase see the	attached cha	aracteristics	list	
Leakage current*1	Rated voltage applied, a	after 2 m	ninutes	Plea	ase see the	attached cha	aracteristics	list	
Equivalent series resistance (ESR)	100kHz/20)℃		Plea	ase see the	attached cha	aracteristics	list	
Characteristics of impedance ratio at high temp.	Based the value at	-55℃	Z/Z20°C	0.75 to 1.25					
and low temp.	100kHz, +20℃	+105℃	Z/Z20°C			5			
	105°C, 2,000h,	△(C/C	Within ±20% of the initial value					
Endurance)F	Within 1.5 times of the initial limit					
Endurance	Rated voltage applied	e applied ESR Within 1.5 times of the initial limit							
		L	LC Within the initial lim		limit				
		△C/C		Within ±20% of the initial value					
Down boot/Ctoody state)	60°C, 90 to 95%RH, 1.000h.	DF		Within 1.5 times of the initial limit					
Damp heat(Steady state)	No-applied voltage	ESR		Within 1.5 times of the initial limit					
		LC		Within the initial limit (after voltage processing)				ssing)	
		△(C/C	Within $\pm 10\%$ of the initial value ($\pm 15\%$ for 2.5V 4.0			.5V 4.0V)		
Resistance to soldering heat*2	VPS (230°C X 75s) DF Within 1.3 times of			times of the	initial limit				
rissistants to soldoning hout	1 (_1307(700)	ES	SR		Within 1.3	times of the	initial limit		
		L	.C	Within the initial limit (after voltage processing)				ssing)	

%1 In case of some problems for measured values, measure after applying rated voltage for 120 minutes at 105℃.

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

Marking and dimensions Polarity marking 0.2max

Size code	φ D ±0.5	L +0.1 L -0.4	W ±0.2	H ±0.2	C ±0.2	R	P ±0.2
В6	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
F12	100	126	10.3	103	110	0.8 to 1.1	46

Polarity marking (Cathode) Case No. Series SVPC Ref. E12, F12 Size is SVPC 120 Rated capacitance Rated voltage

Size list

ΗV	:	Rated	VO	Itage

μ F RV	2.5	4.0	6.3	10	16
39					В6
68				B6	C6
100			B6		C6
120			В6	C6	E7
150		В6			E7
180	В6				
220			C6		
270				E7	E12
330		C6	C6		
390	C6		E7		
560	C6	E7,E12			
680	E7				
820	E12		E12		
1,200		E12			
1,500	E12	E12			
2,700	F12				

POSCAP Line-up Guidelines and Series system diagram guide case size Selection Products list Explanation of part numbers Packing specifications Marking Technical data Fundamental structure Characteristics Reliability TPH TPG Surface mount type TPSF TPE TPR/TPC TPL·TPLF

Catalog Deletion and EOL models

TPF
TA
TV
TH

Guidelines and precautions for use

OS-CON

Image of

Products list

Selection guide

Technical data Fundamental structure Characteristics

SVPF SVPE SVPS SVPD

Reliability

SVPC SVPB SVPA SVQP SVP

Radial lead type SEPF SEPC SEQP

Catalog Deletion and EOL series

POSCAP POSCAP Line-up

Guidelines and precautions for use

Series system diagram guide Image of case size Selection Products list Explanation of part numbers

Packing specifications Marking

data Recommended soldering condition **Fechnical** Fundamental structure

Characteristics

Reliability

TPU TPG Surface mount type TPSF TPB/TPC TPL:TPLF

TΑ TV

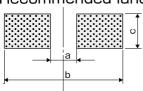
Catalog Deletion and EOL models

SVPC series characteristics list

Size	Part number	Rated voltage	Rated capacitance	ESR (mß	ጋ) (max)	Rated ripple current	DF	Leakage current (µA)(max)
code	Farthumber	(V)	(μF)	100kHz/20℃	300kHz/20℃*1	100kHz (mArms) at 105℃	(% max)	After 2 minutes
	16SVPC39M	16	39	35	30	1820	12	300
	16SVPC39MV	16	39	27	23	2350	12	300
	10SVPC68M	10	68	30	26	1970	12	300
	10SVPC68MV	10	68	23	20	2540	12	300
	6SVPC100M	6.3	100	30	26	1970	12	300
	6SVPC100MY	6.3	100	25	21	2150	12	300
В6	6SVPC120MV	6.3	120	21	18	2660	12	300
	4SVPC150M	4.0	150	30	26	1970	12	300
	4SVPC150MY	4.0	150	23	20	2240	12	300
	4SVPC150MV	4.0	150	20	17	2730	12	300
	2R5SVPC180M	2.5	180	30	26	1970	12	300
	2R5SVPC180MY	2.5	180	24	20	2200	12	300
	2R5SVPC180MV	2.5	180	19	16	2800	12	300
	16SVPC68M	16	68	30	26	2200	12	300
	16SVPC68MV	16	68	25	22	2440	12	300
	16SVPC100M	16	100	24	23	2490	12	300
	10SVPC120M	10	120	27	23	2320	12	300
	10SVPC120MV	10	120	22	19	2600	12	300
	6SVPC220M	6.3	220	27	23	2320	12	300
C6	6SVPC220MV	6.3	220	15	13	3160	12	300
	6SVPC330M	6.3	330	17	15	3390	12	415
	4SVPC330M	4.0	330	27	23	2320	12	300
	4SVPC330MY	4.0	330	21	18	2630	12	300
	4SVPC330MV	4.0	330	15	13	3160	12	300
	2R5SVPC390M	2.5	390	25	22	2410	12	300
	2R5SVPC390MV	2.5	390	15	13	3160	12	300
	2R5SVPC560M	2.5	560	16	14	3500	12	300
	16SVPC120M	16	120	27	23	2900	12	500
	16SVPC150M	16	150	22	21	3220	12	500
E7	10SVPC270M	10	270	22	19	3220	12	500
	6SVPC390M	6.3	390	22	19	3220	12	491
	4SVPC560M	4.0	560	22	19	3220	12	500
	2R5SVPC680M	2.5	680	20	17	3370	12	500
	16SVPC270M	16	270	16	14	4070	15	864
	6SVPC820M	6.3	820	12	10	4700	15	1033
	4SVPC560MX	4.0	560	9	8	5380	15	500
E12	4SVPC1200M	4.0	1200	12	10	4700	15	960
	4SVPC1500M	4.0	1500	12	10	4700	15	1200
	2R5SVPC820M	2.5	820	9	8	5380	15	500
	2R5SVPC1500M	2.5	1500	10	9	5150	15	750
F12	2R5SVPC2700M	2.5	2700	12	10	5070	15	1350

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

Recommended land pattern dimension of PWB



Size code	а	b	С
В6	1.4	7.4	1.6
C6	2.1	9.1	1.6
E7	2.8	11.1	1.9
E12	2.8	11.1	1.9
F12	4.3	13.1	1.9

(unit:mm)

Frequency coefficient for ripple current

Frequency	$120Hz \le f < 1kHz$	$1kHz \le f < 10kHz$	$10kHz \le f < 100kHz$	$100kHz \le f \le 500kHz$
Coefficient	0.05	0.3	0.7	1

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Panasonic:

 6SVPC100MY
 10SVPC68MV
 2R5SVPC180M
 4SVPC1500M
 10SVPC120MV
 2R5SVPC390M
 16SVPC68M

 4SVPC560M
 4SVPC330MY
 10SVPC120M
 4SVPC330MV
 2R5SVPC1500M
 2R5SVPC180MY
 16SVPC39MV

 4SVPC1200M
 16SVPC150M
 6SVPC390M
 4SVPC150MV
 4SVPC560MX
 2R5SVPC390MV
 10SVPC68M

 16SVPC120M
 6SVPC330M
 6SVPC120MV
 2R5SVPC820M
 2R5SVPC180MV
 10SVPC270M
 16SVPC270M

 2R5SVPC680M
 6SVPC820M
 6SVPC100M
 2R5SVPC560M
 6SVPC100M
 2R5SVPC2700M

 6SVPC220M
 4SVPC150MY
 16SVPC39M
 4SVPC330M
 4SVPC150M
 16SVPC68MV