Ⅳ. SPECIFICATIONS FOR EACH SERIES

Conductive polymer type

SVPD Series

Guaranteed at 125°C, 85°C×85% guaranteed,Rated 35V, Rated 35V max.

The SVQP series guaranteed 125°C high voltage resistance was improved to a rated maximum of 35V.This product is very reliable, guaranteeing 85°C × 85% performance. Suitable for use in smoothing circuits of vehicle-mounted equipment, industrial equipment, etc.
This product can support lead free-reflow.(※2).

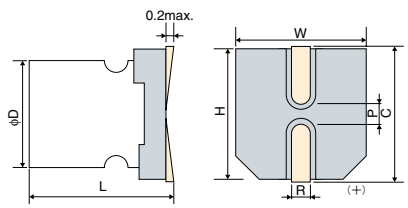
Marking : Polarity(⊖), Rated voltage, (Purple) SVPD Rated capacitance, Lot.No.

■Specifications

Items	Conditions	Characteristics		
Category temperature range	—	-55°C to +125°C		
Tolerance on rated capacitance	120Hz	M : ±20%		
Tangent of loss angle	120Hz	Less than or equal to the value of Table2		
Leakage current ※1	After 2 minutes	Less than or equal to the value of Table2		
ESR	—	Less than or equal to the value of Table2		
Characteristics of impedance ratio at high temp. and low temp.	Based the value at 100KHz, +20°C	-55°C	Z / Z 20°C	0.75 to 1.25
		+125°C	Z / Z 20°C	0.75 to 1.25
Endurance	125°C, 2,000h, Rated voltage applied	ΔC/C	Within ±20%	
		tanδ	2 times or less than an initial standard	
		ESR	2 times or less than an initial standard	
		Leakage current	Below an initial standard	
Damp heat (Steady state)	85°C, 85 to 90% RH, 1,000h, Rated voltage applied	ΔC/C	Within ±20%	
		tanδ	2 times or less than an initial standard	
		ESR	2 times or less than an initial standard	
		Leakage current	Below an initial standard	
Resistance to soldering heat ※2	(VPS) (230°C X 75s)	ΔC/C	Within ±10%	
		tanδ	1.3 times or less than an initial standard	
		ESR	1.3 times or less than an initial standard	
		Leakage current	Below an initial standard (after voltage processing)	

※1 In case of some problems for measured values, measure after applying rated voltage for 120 minutes at 125°C .
※2 Refer to Page 56 for reflow soldering conditions.

■Dimensions



(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
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
F8	10.0	7.9	10.3	10.3	11.0	0.6 to 0.8	4.6
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

■Size List

RV : Rated voltage
(SV) : Surge (125°C)

μF \ RV (SV)	10.0 (11.5)	16.0 (18.4)	25.0 (29.0)	35.0 (40.0)
8.2				E7
10			C6	
18				F8
22			E7	E12
39			F8	
47			E12	F12
56	C6			
82		E7	F12	

※For the minimum packing quantity, please refer to page 55.

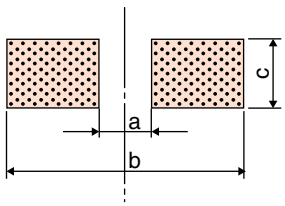
Ⅳ. SPECIFICATIONS FOR EACH SERIES

■Table2 SVPD Series Characteristics List

Size Code	Part Number ※1	Rated Voltage (V)	Rated Capacitance (μF)	ESR 100kHz to 300kHz (mΩ) (max.)	Rated ripple current 100kHz (mArms) ※3 105℃<Tx≦125℃	Allowable ripple current 100kHz (mArms) ※3 Tx≦105℃	Tangent of loss angle (max.)	Leakage current (μA) (max.)※2
C6	25SVPD10M	25	10	65	474	1500	0.10	50
	10SVPD56M	10	56	45	538	1700	0.12	112
E7	35SVPD8R2M	35	8.2	70	400	1300	0.10	57
	25SVPD22M	25	22	48	580	1835	0.10	110
	16SVPD82M	16	82	40	670	2120	0.12	262
F8	35SVPD18M	35	18	60	550	1800	0.10	126
	25SVPD39M	25	39	45	664	2100	0.10	195
E12	35SVPD22M	35	22	50	700	2300	0.12	154
	25SVPD47M	25	47	30	943	2980	0.12	235
F12	35SVPD47M	35	47	30	1150	3650	0.12	329
	25SVPD82M	25	82	28	1202	3800	0.12	410

※1 Capacitance tolerance : M ±20%
※2 After 2 minutes
※3 Tx : Ambient temperature

■Recommended land pattern dimension of PWB



(unit : mm)

Size Code	a	b	c
C6	2.1	9.1	1.6
E7	2.8	11.1	1.9
F8	4.3	13.1	1.9
E12	2.8	11.1	1.9
F12	4.3	13.1	1.9

Frequency coefficient for ripple current

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