

## Surface Mount Type



Series : **SVPS**



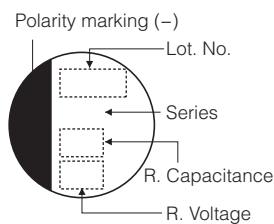
### Features

- 105 °C 5000 h
- RoHS compliance, Halogen free

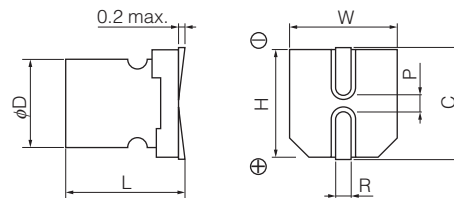
### Specifications

Size code	A5	B6	C6	E7	F8
Category temperature range	-55 °C to +105 °C				
Rated capacitance range	4 V.DC to 10 V.DC	4 V.DC to 16 V.DC	4 V.DC to 20 V.DC	4 V.DC to 25 V.DC	4 V.DC to 16 V.DC
Rated capacitance range	10 μF to 33 μF	22 μF to 68 μF	22 μF to 150 μF	10 μF to 270 μF	100 μF to 680 μF
Capacitance tolerance	±20 % (120 Hz / + 20 °C)				
Leakage current	Please see the attached characteristics list				
Dissipation factor (tan δ)	Please see the attached characteristics list				
Endurance	+105 °C, 5000 h, rated voltage applied (25 V.DC → 20 V.DC applied)				
	Capacitance change	Within ±20 % of the initial value			
	tan δ	≤ 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 ±20 % of the initial value			
	tan δ	≤ 150 % of the initial limit			
	DC leakage current	Within the initial limit (after voltage processing)			

### Marking



### Dimensions (not to scale)



Unit : mm

Size code	φD±0.5	L <sup>+0.1</sup> <sub>-0.4</sub>	W±0.2	H±0.2	C±0.2	R	P±0.2
A5	4.0	5.4	4.3	4.3	5.0	0.6 to 0.8	1.0
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
F8	10.0	7.9	10.3	10.3	11.0	0.6 to 0.8	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> (mA r.m.s.)	ESR* <sup>2</sup> (mΩ max.)	tan δ* <sup>3</sup>	LC* <sup>4</sup> (μA)	Part number	Min. Packaging Qty (pcs)
SVPS	4.0	33	4.0	5.4	A5	740	200	0.15	66	4SVPS33M	2000
		68	5.0	5.9	B6	1970	30	0.12	300	4SVPS68M	1500
		150	6.3	5.9	C6	2570	22	0.12	300	4SVPS150M	1000
		270	8.0	6.9	E7	3220	22	0.12	500	4SVPS270M	1000
		680	10.0	7.9	F8	4130	20	0.12	544	4SVPS680M	500
	6.3	22	4.0	5.4	A5	740	200	0.12	69.3	6SVPS22M	2000
		47	5.0	5.9	B6	1970	30	0.12	300	6SVPS47M	1500
		120	6.3	5.9	C6	2570	22	0.12	300	6SVPS120M	1000
		220	8.0	6.9	E7	3220	22	0.12	500	6SVPS220M	1000
		470	10.0	7.9	F8	4130	20	0.12	592	6SVPS470M	500
	10	10	4.0	5.4	A5	700	220	0.10	50	10SVPS10M	2000
			4.0	5.4		740	200	0.10	75	10SVPS15M	2000
		150	5.0	5.9	B6	1100	70	0.12	165	10SVPS33M	1500
			6.3	5.9	C6	2200	30	0.12	300	10SVPS68M	1000
			8.0	6.9	E7	2760	30	0.12	500	10SVPS150MX	1000
				7.9	F8	3020	30	0.12	300	10SVPS150M	500
			10.0	7.9		3770	24	0.12	660	10SVPS330M	500
	16	22	5.0	5.9	B6	1060	90	0.10	176	16SVPS22M	1500
		39	6.3	5.9	C6	2460	24	0.12	300	16SVPS39M	1000
		82	8.0	6.9	E7	2760	30	0.12	262	16SVPS82M	1000
		100	10.0	7.9	F8	2670	35	0.12	320	16SVPS100M	500
			180	7.9		3430	29	0.12	576	16SVPS180M	500
	20	22	6.3	5.9	C6	1450	60	0.10	88	20SVPS22M	1000
		47	8.0	6.9	E7	1890	45	0.12	188	20SVPS47M	1000
			10	8.0		6.9	1500	60	0.10	125	25SVPS10M

\*1 Ripple current (100 kHz/ +105 °C),

: The surface temperature of aluminum case top must not exceed 105 °C. A rise in temperature due to self-heating by ripple current should be factored in.

\*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

## Guidelines and precautions regarding the technical information and use of our products described in this online catalog.

- If you want to use our products described in this online catalog for applications requiring special qualities or reliability, or for applications where the failure or malfunction of the products may directly jeopardize human life or potentially cause personal injury (e.g. aircraft and aerospace equipment, traffic and transportation equipment, combustion equipment, medical equipment, accident prevention, anti-crime equipment, and/or safety equipment), it is necessary to verify whether the specifications of our products fit to such applications. Please ensure that you will ask and check with our inquiry desk as to whether the specifications of our products fit to such applications use before you use our products.
- The quality and performance of our products as described in this online catalog only apply to our products when used in isolation. Therefore, please ensure you evaluate and verify our products under the specific circumstances in which our products are assembled in your own products and in which our products will actually be used.
- If you use our products in equipment that requires a high degree of reliability, regardless of the application, it is recommended that you set up protection circuits and redundancy circuits in order to ensure safety of your equipment.
- The products and product specifications described in this online catalog are subject to change for improvement without prior notice. Therefore, please be sure to request and confirm the latest product specifications which explain the specifications of our products in detail, before you finalize the design of your applications, purchase, or use our products.
- The technical information in this online catalog provides examples of our products' typical operations and application circuits. We do not guarantee the non-infringement of third party's intellectual property rights and we do not grant any license, right, or interest in our intellectual property.
- If any of our products, product specifications and/or technical information in this online catalog is to be exported or provided to non-residents, the laws and regulations of the exporting country, especially with regard to security and export control, shall be observed.

## <Regarding the Certificate of Compliance with the EU RoHS Directive/REACH Regulations>

- The switchover date for compliance with the RoHS Directive/REACH Regulations varies depending on the part number or series of our products.
- When you use the inventory of our products for which it is unclear whether those products are compliant with the RoHS Directive/REACH Regulation, please select "Sales Inquiry" in the website inquiry form and contact us.

**We do not take any responsibility for the use of our products outside the scope of the specifications, descriptions, guidelines and precautions described in this online catalog.**

---