

Surface Mount Type

S series

V type



Features

- Endurance : 85 °C 2000 h
- Vibration-proof product (30G guaranteed) is available upon request. (φ8 ≤)
- AEC-Q200 compliant
- RoHS compliant

Specifications

Category temp. range	-40 °C to +85 °C										
Rated voltage range	4.0 V to 100 V										
Capacitance range	1 μF to 1500 μF										
Capacitance tolerance	±20 % (120 Hz / +20 °C)										
Leakage current	I ≤ 0.01 CV or 3 (μA) (Bi-Polar I ≤ 0.02 CV or 6 (μA)) After 2 minutes (Whichever is greater)										
Dissipation factor (tan δ)	Please see the attached characteristics list										
Characteristics at low temperature	Rated voltage (V)	4.0	6.3	10	16	25	35	50	63	100	(Impedance ratio at 120 Hz)
	Z (-25 °C) / Z (+20 °C)	7	4	3	2	2	2	2	3	3	
	Z (-40 °C) / Z (+20 °C)	15	8	6	4	4	3	3	4	4	
Endurance	After applying rated working voltage for 2000 h (Bi-polar:1000 h for each polarity) at +85 °C ± 2 °C and then being stabilized at +20 °C, capacitors shall meet the following limits.										
	Capacitance change	Within ±20 % of the initial value									
		Size code	Rated voltage		Capacitance change						
		B(φ4) to D, D8(φ6.3)	4 V		1000 hours ±30 %						
≤ D(φ6.3) Miniature	6.3 V		1000 hours ±20 %								
≥ 10 V											
Dissipation factor (tan δ)	≤ 200 % of the initial limit										
Leakage current	Within the initial limit										
Shelf life	After storage for 1000 h at +85 °C ± 2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in endurance. (With voltage treatment)										
Resistance to soldering heat	After reflow soldering and then being stabilized at +20 °C, capacitors shall meet the following limits.										
	Capacitance change	Within ±10 % of the initial value									
	Dissipation factor (tan δ)	Within the initial limit									
	Leakage current	Within the initial limit									

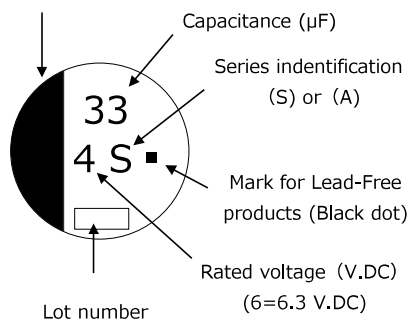
Frequency correction factor for ripple current

Frequency (Hz)	50, 60	120	1 k	10 k to
Correction factor	0.70	1.00	1.30	1.70

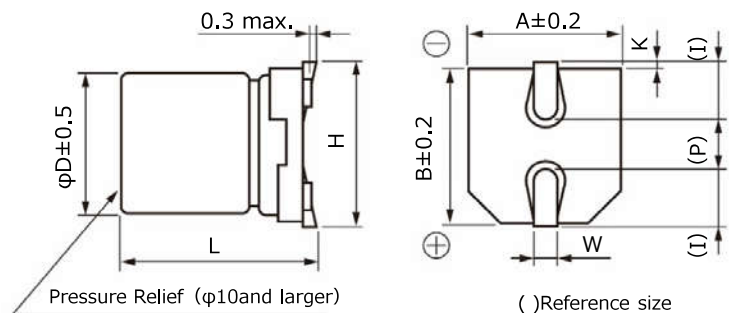
Marking

Example : 4 V 33 μF
Marking color : BLACK

Negative polarity marking (-)
(No marking for the bi-polar)



Dimensions



Size code	φD	L	A, B	H	I	W	P	K	Unit : mm
B	4.0	5.4	^{+0.1} _{-0.2}	4.3	5.5 max.	1.8	0.65±0.1	1.0	0.35 ^{+0.15} _{-0.20}
C	5.0	5.4	^{+0.1} _{-0.2}	5.3	6.5 max.	2.2	0.65±0.1	1.5	0.35 ^{+0.15} _{-0.20}
D	6.3	5.4	^{+0.1} _{-0.2}	6.6	7.8 max.	2.6	0.65±0.1	1.8	0.35 ^{+0.15} _{-0.20}
D8	6.3	7.7±0.3	6.6	7.8 max.	2.6	0.65±0.1	1.8	0.35 ^{+0.15} _{-0.20}	
E	8.0	6.2±0.3	8.3	9.5 max.	3.4	0.65±0.1	2.2	0.35 ^{+0.15} _{-0.20}	
F	8.0	10.2±0.3	8.3	10.0 max.	3.4	0.90±0.2	3.1	0.70±0.2	
G	10.0	10.2±0.3	10.3	12.0 max.	3.5	0.90±0.2	4.6	0.70±0.2	