

VS series

SMD type, Low profile type.
Lead free-reflow is supported.

VS是小型化表面貼裝型產品，可適應無鉛回流焊。

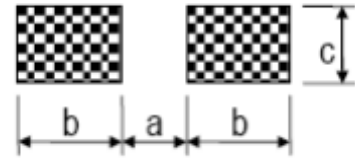


Specifications

Items	Characteristics	
Operating Temp. Range	-55°C~+105°C	
Capacitance Range	10~560 μ F	
Capacitance Tolerance	M : \pm 20%	
Rated Voltage Range	2.5V~25V DC	
Dissipation Factor (at 120Hz,20°C)	Not to exceed the value specified	
Leakage Current	\leq 0.2CV (μ A, after 2 minutes)	
ESR(100K~300KHz)	Not to exceed the value specified	
Endurance 105°C , 2000h , at rated voltage	Capacitance	Within \pm 20% of the value before test
	Leakage current	Not to exceed the value specified
	ESR	Not to exceed 150% of the value specified
	Dissipation Factor	Not to exceed 150% of the value specified
Moisture Resistance Stored at 60°C, Rh90~95% , 2000h	Capacitance	Within \pm 20% of the value before test
	Leakage Current	Not to exceed the value specified
	ESR	Not to exceed 150% of the value specified
	Dissipation Factor	Not to exceed 150% of the value specified

Recommended land pattern

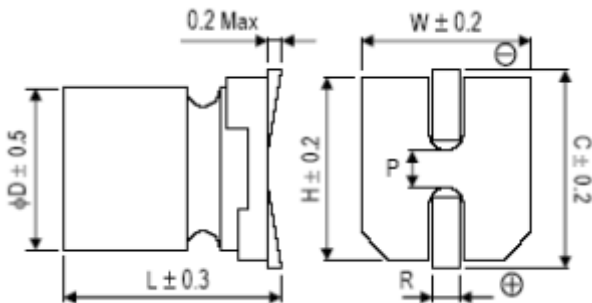
Unit: mm



Φ D×L	a	b	c
4×5.5	1.0	2.6	1.6
5×5.5	1.4	3.0	1.6
6.3×5.8	2.1	3.5	1.6
6.3×7.7	2.1	3.5	1.6

Diagram of Dimensions

Unit: mm



Φ D×L	W	H	C	R	P
4×5.5	4.3	4.3	5.1	0.5 to 0.8	1.0
5×5.5	5.3	5.3	5.9	0.5 to 0.8	1.4
6.3×5.8	6.5	6.5	7.2	0.5 to 0.8	2.1
6.3×7.7	6.5	6.5	7.2	0.5 to 0.8	2.1

Size List

RV/v(SV) CAP/μF	2.5 (2.8)	4 (4.6)	6.3 (7.2)	10 (11.5)	16 (18.4)	20 (23)	25 (27.5)
10				4×5.5	6.3×5.8/ 6.3×7.7	6.3×5.8/ 6.3×7.7	6.3×5.8/ 6.3×7.7
15				4×5.5	6.3×5.8/ 6.3×7.7	6.3×5.8/ 6.3×7.7	6.3×5.8/ 6.3×7.7
22				4×5.5	6.3×5.8/ 6.3×7.7	6.3×5.8/ 6.3×7.7	6.3×7.7
33				5×5.5/6.3×5.8	6.3×5.8/ 6.3×7.7	6.3×7.7	6.3×7.7
39				5×5.5 /6.3×5.8	6.3×5.8/ 6.3×7.7	6.3×7.7	6.3×7.7
47				6.3×5.8/ 6.3×7.7	6.3×5.8/ 6.3×7.7	6.3×7.7	
68				6.3×5.8/ 6.3×7.7	6.3×5.8/ 6.3×7.7		
82				6.3×5.8/ 6.3×7.7	6.3×7.7		
100	4×5.5 /5×5.5	5×5.5	6.3×5.8/6.3×7.7	6.3×5.8/ 6.3×7.7	6.3×7.7		
150	5×5.5 /6.3×5.8	6.3×5.8/6.3×7.7	6.3×5.8/6.3×7.7	6.3×5.8/6.3×7.7			
180	5×5.5/6.3×5.8	6.3×5.8/6.3×7.7	6.3×5.8/6.3×7.7	6.3×7.7			
220	5×5.5/6.3×5.8	6.3×5.8/6.3×7.7	6.3×5.8/6.3×7.7	6.3×7.7			
270	6.3×5.8/6.3×7.7	6.3×5.8/6.3×7.7	6.3×5.8/6.3×7.7				
330	6.3×5.8 / 6.3×7.7	6.3×5.8/6.3×7.7	6.3×5.8/6.3×7.7				
390	6.3×5.8/6.3×7.7	6.3×5.8/6.3×7.7	6.3×5.8/6.3×7.7				
470	6.3×5.8/6.3×7.7	6.3×5.8/6.3×7.7					
560	6.3×5.8/6.3×7.7						

Characteristics List

W.V. (V)	Capacitance (μF)	L.C. (μA,2min)	tgδ (120Hz,20°C)	ESR (mΩ,100kHz)	Rated Ripple Current(mA,r.m.s)	Size ΦD×L (mm)	Part Number
2.5	100	300	0.08	30	1670	4×5.5	VS101M2R5B055
	100	300	0.08	30	1970	5×5.5	VS101M2R5C055
	150	300	0.08	30	1970	5×5.5	VS151M2R5C055
	150	300	0.08	30	2200	6.3×5.8	VS151M2R5E058
	180	300	0.08	30	1970	5×5.5	VS181M2R5 C055
	180	300	0.08	30	2200	6.3×5.8	VS181M2R5E058
	220	300	0.08	30	2200	5×5.5	VS221M2R5 C055
	220	300	0.08	30	2610	6.3×5.8	VS221M2R5E058
	270	300	0.08	25	2610	6.3×5.8	VS271M2R5E058
	270	300	0.08	20	2690	6.3×7.7	VS271M2R5E077
	330	300	0.08	25	2610	6.3×5.8	VS331M2R5E058
	330	300	0.08	20	2690	6.3×7.7	VS331M2R5E077
	390	300	0.08	20	2690	6.3×7.7	VS391M2R5E077
	470	300	0.08	15	3100	6.3×7.7	VS471M2R5E077
560	300	0.08	15	3100	6.3×7.7	VS561M2R5E077	
4	100	300	0.08	30	1970	5×5.5	VS101M004 C055
	150	300	0.08	30	2200	6.3×5.8	VS151M004E058
	150	300	0.08	25	2670	6.3×7.7	VS151M004E077
	180	300	0.08	30	2200	6.3×5.8	VS181M004E058
	180	300	0.08	25	2670	6.3×7.7	VS181M004E077
	220	300	0.08	25	2610	6.3×5.8	VS221M004E058
	220	300	0.08	20	2690	6.3×7.7	VS221M004E077
	270	300	0.08	25	2610	6.3×5.8	VS271M004E058
	270	300	0.08	20	2690	6.3×7.7	VS271M004E077
	330	300	0.08	20	2690	6.3×5.8	VS331M004E058
	330	300	0.08	15	3100	6.3×7.7	VS331M004E077
	390	300	0.08	15	3100	6.3×7.7	VS391M004E077
	470	300	0.08	15	3100	6.3×7.7	VS471M004E077
	6.3	100	300	0.08	25	2390	6.3×5.8
100		300	0.08	20	2690	6.3×7.7	VS101M6R3E077
150		300	0.08	25	2390	6.3×5.8	VS151M6R3E058
150		300	0.08	20	2690	6.3×7.7	VS151M6R3E077
180		300	0.08	20	2690	6.3×5.8	VS181M6R3E058
180		300	0.08	20	2690	6.3×7.7	VS181M6R3E077
220		300	0.08	15	3000	6.3×5.8	VS221M6R3E058
220		300	0.08	15	3400	6.3×7.7	VS221M6R3E077
270	300	0.08	15	3000	6.3×5.8	VS271M6R3E058	

Characteristics List

W.V. (V)	Capacitance (μ F)	L.C. (μ A,2min)	tg δ (120Hz,20°C)	ESR (m Ω ,100kHz)	Rated Ripple Current(mA,r.m.s)	Size Φ D \times L (mm)	Part Number
6.3	270	300	0.08	15	3400	6.3 \times 7.7	VS271M6R3E077
	330	300	0.08	15	3100	6.3 \times 5.8	VS331M6R3E058
	330	300	0.08	15	3400	6.3 \times 7.7	VS331M6R3E077
	390	300	0.08	15	3100	6.3 \times 5.8	VS391M6R3E058
	390	300	0.08	15	3400	6.3 \times 7.7	VS391M6R3E077
10	10	300	0.08	45	1200	4 \times 5.5	VS100M010B055
	15	300	0.08	45	1200	4 \times 5.5	VS150M010B055
	22	300	0.08	45	1200	4 \times 5.5	VS220M010B055
	33	300	0.08	45	1670	5 \times 5.5	VS330M010C055
	33	300	0.08	30	2200	6.3 \times 5.8	VS330M010E058
	39	300	0.08	45	1670	5 \times 5.5	VS390M010C055
	39	300	0.08	30	2200	6.3 \times 5.8	VS390M010E058
	47	300	0.08	30	2200	6.3 \times 5.8	VS470M010E058
	47	300	0.08	20	2690	6.3 \times 7.7	VS470M010E077
	68	300	0.08	30	2200	6.3 \times 5.8	VS680M010E058
	68	300	0.08	20	2690	6.3 \times 7.7	VS680M010E077
	82	300	0.08	30	2200	6.3 \times 5.8	VS820M010E058
	82	300	0.08	20	2690	6.3 \times 7.7	VS820M010E077
	100	300	0.08	30	2200	6.3 \times 5.8	VS101M010E058
	100	300	0.08	20	2690	6.3 \times 7.7	VS101M010E077
	150	300	0.08	20	2690	6.3 \times 7.7	VS151M010E077
	180	300	0.08	20	2690	6.3 \times 7.7	VS181M010E077
220	300	0.08	20	2690	6.3 \times 7.7	VS221M010E077	
16	10	400	0.08	30	2200	6.3 \times 5.8	VS100M016E058
	10	400	0.08	25	2610	6.3 \times 7.7	VS100M016E077
	15	400	0.08	30	2200	6.3 \times 5.8	VS150M016E058
	15	400	0.08	25	2610	6.3 \times 7.7	VS150M016E077
	22	400	0.08	30	2200	6.3 \times 5.8	VS220M016E058
	22	400	0.08	25	2610	6.3 \times 7.7	VS220M016E077
	33	400	0.08	30	2200	6.3 \times 5.8	VS330M016E058
	33	400	0.08	25	2610	6.3 \times 7.7	VS330M016E077
	47	400	0.08	30	2200	6.3 \times 5.8	VS470M016E058
	47	400	0.08	25	2610	6.3 \times 7.7	VS470M016E077
	68	400	0.08	30	2200	6.3 \times 5.8	VS680M016E058
	68	400	0.08	20	2690	6.3 \times 7.7	VS680M016E077
	82	400	0.08	20	2690	6.3 \times 7.7	VS820M016E077
	100	400	0.08	20	2690	6.3 \times 7.7	VS101M016E077
20	10	600	0.08	30	2200	6.3 \times 5.8	VS100M020E058
	10	600	0.08	25	2670	6.3 \times 7.7	VS100M020E077
	15	600	0.08	30	2200	6.3 \times 5.8	VS150M020E058
	15	600	0.08	25	2670	6.3 \times 7.7	VS150M020E077
	22	600	0.08	30	2200	6.3 \times 5.8	VS220M020E058
	22	600	0.08	25	2670	6.3 \times 7.7	VS220M020E077
	33	600	0.08	25	2670	6.3 \times 7.7	VS330M020E077
	39	600	0.08	25	2670	6.3 \times 7.7	VS390M020E077
25	47	600	0.08	25	2670	6.3 \times 7.7	VS470M020E077
	10	600	0.08	30	2200	6.3 \times 5.8	VS100M025E058
	10	600	0.08	25	2670	6.3 \times 7.7	VS100M025E077
	22	600	0.08	25	2670	6.3 \times 7.7	VS220M025E077
	33	600	0.08	25	2670	6.3 \times 7.7	VS330M025E077
39	600	0.08	25	2670	6.3 \times 7.7	VS390M025E077	

Frequency Coefficient for Ripple Current

Frequency	120Hz \leq freq.<1KHz	1KHz \leq freq.<10KHz	10KHz \leq freq.<100KHz	100KHz \leq freq.<300KHz
Coefficient	0.05	0.3	0.7	1