

VL series SMD Low Height



- SMD Type, Low height
 - Load life of 5000 hours at 105°C
 - Compliant to the RoHS2.0 directive
 - Suitable for Thinness of electronic products
- 低高度贴片固态产品, 产品满足 RoHS2.0 指令, 适合电子设备薄型化。

◇ Specifications

Items	Characteristics	
Operating Temp. Range	-55°C ~ +105°C	
Capacitance Range	3.3~470μF	
Capacitance Tolerance	M : ±20%	
Rated Voltage Range	2.5V ~ 100V DC	
Dissipation Factor	Not to exceed the value specified	
Leakage Current	Not to exceed the value specified (after 2 minutes)	
ESR (100K~300KHz)	Not to exceed the value specified	
Endurance 105°C · 5000h · at rated voltage	Capacitance Change	Within ±20% of the value before test
	Dissipation Factor	Not to exceed 150% of the value specified
	ESR	Not to exceed 150% of the value specified
	Leakage current	Not to exceed the value specified
Moisture Resistance Stored at 85°C · RH85% · 1000h	Capacitance Change	Within ±20% of the value before test
	Dissipation Factor	Not to exceed 150% of the value specified
	ESR	Not to exceed 150% of the value specified
	Leakage Current	Not to exceed the value specified
Resistance to Soldering Heat After the recommended soldering conditions	Capacitance Change	Within ±5% of the value before test
	Dissipation Factor	Not to exceed the value specified
	ESR	Not to exceed the value specified
	Leakage Current	Not to exceed the value specified (Charging treatment)

※When there is any doubt, measure after charging treatment below.
Charging treatment: at 105 °C, Rated voltage is loaded for 120 minutes continuously.

◇ Dimensions (Unit:mm)

ΦD+0.5max.	6.3
L -0.3/+0	4.5
W±0.2	6.6
H±0.2	6.6
C±0.2	7.2
P±0.2	2.1
R	0.5 ~ 0.8
T1、T2	0.2Max

Recommended land pattern

ΦD	6.3.
a	2.1
b	3.5
c	1.6



✧ Capacitance List

W.V (S.V) SIZE	2.5 (2.9)	6.3 (7.2)	10 (12)	16 (18)	25 (29)
6.3×4.5	220 ~ 470μF	150 ~ 270μF	100 ~ 180μF	56 ~ 100μF	47 ~ 68μF

W.V (S.V) SIZE	35 (40)	50 (58)	63 (72)	80 (92)	100 (115)
6.3×4.5	22 ~ 39μF	10 ~ 18μF	8.2 ~ 12μF	4.7 ~ 5.6μF	3.3 ~ 3.9μF

✧ Characteristics List

W.V (V)	Capacitance (μF)	L.C. (μA,2min)	tgδ (120Hz,20℃)	ESR (mΩ,100kHz)	Rated Ripple Current(mA,r.m.s)	Size ΦD×L(mm)	Part Number
2.5	220	300	0.08	18	3500	6.3×4.5	PVL221M2R5E45TR□□□□
	330	700	0.08	18	3500	6.3×4.5	PVL331M2R5E45TR□□□□
6.3	150	480	0.08	20	2700	6.3×4.5	PVL151M6R3E45TR□□□□
	220	700	0.08	20	2700	6.3×4.5	PVL221M6R3E45TR□□□□
10	100	500	0.08	25	2400	6.3×4.5	PVL101M010E45TR□□□□
	150	750	0.08	25	2400	6.3×4.5	PVL151M010E45TR□□□□
16	56	448	0.10	40	2100	6.3×4.5	PVL560M016E45TR□□□□
	100	800	0.10	40	2100	6.3×4.5	PVL101M016E45TR□□□□
25	47	235	0.10	45	1800	6.3×4.5	PVL470M025E45TR□□□□
	56	280	0.10	45	1800	6.3×4.5	PVL560M025E45TR□□□□
35	22	154	0.10	55	1500	6.3×4.5	PVL220M035E45TR□□□□
	33	231	0.10	55	1500	6.3×4.5	PVL330M035E45TR□□□□
50	10	150	0.10	65	1200	6.3×4.5	PVL100M050E45TR□□□□
	15	225	0.10	65	1200	6.3×4.5	PVL150M050E45TR□□□□
63	10	189	0.10	80	1200	6.3×4.5	PVL100M063E45TR□□□□
	12	227	0.10	80	1200	6.3×4.5	PVL120M063E45TR□□□□
80	4.7	113	0.10	150	1000	6.3×4.5	PVL4R7M080E45TR□□□□
	5.6	134	0.10	150	1000	6.3×4.5	PVL5R6M080E45TR□□□□
100	3.3	100	0.10	150	1000	6.3×4.5	PVL3R3M100E45TR□□□□
	3.9	117	0.10	150	1000	6.3×4.5	PVL3R9M100E45TR□□□□

* For the last 4 digits of the part number, please refer to the part number system on page 125.

✧ Frequency Coefficient for Ripple Current

Frequency	120Hz≤freq.<1KHz	1KHz≤freq.<10KHz	10KHz≤freq.<50KHz	50KHz≤freq.<100KHz	100KHz≤freq.<300KHz
Coefficient	0.35	0.75	0.85	0.9	1