

VLP series

- Low profile.
- High ripple current



Specifications

Items	Characteristics	
Temperature range	-55°C ~ +105°C	
Rated voltage range	2.5Vdc ~ 6.3Vdc	
Capacitance range	100μF ~ 390μF	
Capacitance tolerance	±20% [M] (at 20°C, 120Hz)	
Tangent of loss angle	Less than or equal to the value of STANDARD RATING (at 20°C, 120Hz)	
Leakage current	Less than or equal to the value of STANDARD RATING (at 20°C, after 2 minutes)	
ESR	Less than or equal to the value of STANDARD RATING	
Characteristics of impedance	$Z_{+105^{\circ}\text{C}}/Z_{+20^{\circ}\text{C}} \leq 1.25$, $Z_{-55^{\circ}\text{C}}/Z_{+20^{\circ}\text{C}} \leq 1.25$ at 100kHz	
Endurance	105°C, 2,000 hrs at rated voltage	
	Appearance	No significant damage
	Capacitance change	Within±20% of the initial value
	Tangent of loss angle (tanδ)	≤150% of the initial specified value
	ESR(mΩ)	≤150% of the initial specified value
	Leakage current	≤The initial specified value
Damp Heat (Steady state)	60°C, 90 to 95% RH, 1000 hrs, No-applied Voltage	
	Appearance	No significant damage
	Capacitance change	Within±20% of the initial value
	Tangent of loss angle (tanδ)	≤150% of the initial specified value
	ESR(mΩ)	≤150% of the initial specified value
	Leakage current	≤The initial specified value
Resistance to soldering heat	VPS (230°C, 75s)	
	Appearance	No significant damage
	Capacitance change	Within±10% of the initial value
	Tangent of loss angle (tanδ)	≤130% of the initial specified value
	ESR(mΩ)	≤130% of the initial specified value
	Leakage current	≤The initial specified value

* In case of some problems for measured values, measure after applying rated voltage for 120 minutes at 105°C

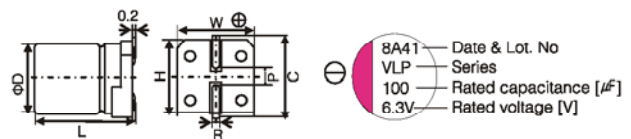
Dimensions

(unit : mm)

RV (SV)	2.5(3.3)	4(5.2)	6.3(8.2)
100			6.3x4.0 (4.4, 4.9)
220		6.3x4.0 (4.4, 4.9)	6.3x5.4
270		6.3x5.4	
330	6.3x4.0 (4.4, 4.9)		
390	6.3x5.4		

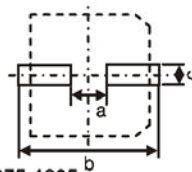
RV:Rated voltage [V] SV:Surge voltage [V] (at room temperature)

Marking and Size list



Size	ΦD±0.5	L	W±0.2	H±0.2	C±0.2	R	P±0.2
6.3x4.0	6.3	4.0±0.3	6.6	6.6	7.3	0.6~0.8	2.1
6.3x4.4	6.3	4.4+0.1/-0.2	6.6	6.6	7.3	0.6~0.8	2.1
6.3x4.9	6.3	4.9+0.1/-0.4	6.6	6.6	7.3	0.6~0.8	2.1
6.3x5.4	6.3	5.4+0.1/-0.4	6.6	6.6	7.3	0.6~0.8	2.1

Recommended land pattern dimension of PCB



Size	a	b	c
6.3x4.0	2.1	9.1	1.6
6.3x4.4	2.1	9.1	1.6
6.3x4.9	2.1	9.1	1.6
6.3x5.4	2.1	9.1	1.6

Standard ratings

Rated Voltage [Vdc]	Rated Capacitance [μ F]	Size Φ D x L [mm]	ESR (20°C, 100kHz) [m Ω][max.]	Rated Ripple Current (105°C, 100kHz) [mA rms, max.]	Tangent of Loss Angle [max.]	Leakage Current [μ A, max.]	Part Number
2.5	330	6.3x4.0	30	1670	0.10	413	2VLP330MC4
	330	6.3x4.4	30	1670	0.10	413	2VLP330MC4R4
	330	6.3x4.9	30	2400	0.10	413	2VLP330MC5
	390	6.3x5.4	25	2560	0.10	195	2VLP390MC5R4
4	220	6.3x4.0	30	1670	0.10	440	4VLP220MC4
	220	6.3x4.4	30	1670	0.10	440	4VLP220MC4R4
	220	6.3x4.9	30	2400	0.10	440	4VLP220MC5
	270	6.3x5.4	25	2560	0.10	216	4VLP270MC5R4
6.3	100	6.3x4.0	30	1670	0.10	315	6VLP100MC4
	100	6.3x4.4	30	1670	0.10	315	6VLP100MC4R4
	100	6.3x4.9	30	2400	0.10	315	6VLP100MC5
	220	6.3x5.4	25	2560	0.10	277	6VLP220MC5R4