KV Series

SMD

Features

- ◆ 85℃ Low leakage curvent case diameter φ4 ~ φ8
- ◆ Reflow soldering is available
- ◆ Available for high density mounting
- ◆ For detail specifications, please refer to Engineering Bulletin No.E134
- ◆ RoHS Compliant

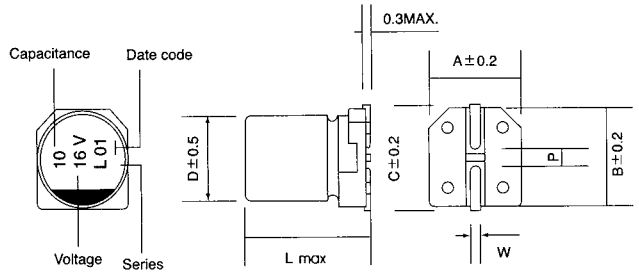
Specifications

Item	Performance Characteristics
Operating Temperature Range	-40~ +85℃
Rated Voltage Range	6.3~50 VDC
Capacitance Range	0.1 to 330 μF
Capacitance Tolerance	±20%(120Hz,+20℃)
Leakage Current (+20℃,max.)	I≦0.002 CV or 0.4 (μA) After 2 minutes, whichever is greater measured with rated working voltage applied
Dissipation Factor (tan δ ，at 20℃，120Hz)	Working voltage(VDC): 6.3 / 10 / 16 / 25 / 35 / 50 D.F. (%) max.: 26 / 22 / 18 / 16 / 14 / 12
Low Temperature Characteristics (at 120Hz)	Impedance ratio max Working voltage(VDC): 6.3 / 10 / 16 / 25 / 35 / 50 Z -25℃／Z +20℃: 4 / 3 / 2 / 2 / 2 / 2 Z -40℃／Z +20℃: 8 / 6 / 4 / 4 / 3 / 3
Load Life	Test conditions Duration time :1000 Hrs Ambient temperature :+85℃ Applied voltage :Rated DC working voltage After test requirement at +20℃: Capacitance change :Within ±25% of the initial value Dissipation factor :Not more than 200% of specified value Leakage current :Not more than the specified value
Shelf Life	Test conditions Duration time :1000 Hrs Ambient temperature :+85℃ Applied voltage :None After test requirement at +20℃ : Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.
Resistance to soldering heat	The capacitors shall be kept on the hot plate maintained at 250℃for 30 seconds. After removing form the hot plate and restored at room temperature, they meet the characteristic requirements listed under. Leakage current: Less than specified value Capacitance change: Within ±10% of initial value tan δ: Less than specified value

Multiplier for Ripple Current vs. Frequency

CAP(μF)＼Frequency(Hz)	60(50)	120	500	1K	≧10K
0.1≦CAP≦100μF	0.8	1	1.2	1.3	1.5
100＜CAP≦330μF	0.8	1	1.1	1.15	1.2

Diagram of Dimensions:(unit:mm)



φD	L	A	B	C	W	P
4	5.5	4.3	4.3	4.9	0.5~0.8	1.0
5	5.5	5.3	5.3	5.9	0.5~0.8	1.4
6.3	5.5	6.6	6.6	7.2	0.5~0.8	2.2
6.3	7.7	6.6	6.6	7.2	0.5~0.8	2.2
8	6.5	8.3	8.3	9.0	0.5~0.8	2.3
8	10.5	8.3	8.3	9.0	0.7~1.1	3.1
10	10.5	10.3	10.3	11.0	0.7~1.1	4.5

Case Size

ϕDxL(mm)

WV / Cap(μF)	6.3		10		16		25		35		50	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1											4x5.5	1
0.22											4x5.5	2
0.33											4x5.5	2.8
0.47											4x5.5	4
1											4x5.5	8.4
2.2									4x5.5	8.4	4x5.5	13
3.3							4x5.5	10	4x5.5	15	4x5.5	17
4.7					4x5.5	10	4x5.5	16	4x5.5	18	6.3x5.5	20
10	4x5.5	15	4x5.5	23	4x5.5	23	4x5.5	27	6.3x5.5	29	6.3x5.5	33
22	4x5.5	28	4x5.5	33	5x5.5	37	5x5.5	42	6.3x5.5	46	6.3x7.7	48
											8x6.5	52
33	4x5.5	37	5x5.5	41	6.3x5.5	49	6.3x5.5	52	6.3x7.7	58	6.3x7.7	66
									8x6.5	62	8x6.5	71
47	4x5.5	45	6.3x5.5	52	6.3x5.5	58	6.3x7.7	65	6.3x7.7	75		
							8x6.5	70	8x6.5	80		
100	5x5.5	70	6.3x7.7	75	6.3x7.7	85	6.3x7.7	102				
			8x6.5	80	8x6.5	92	8x6.5	110				
220	6.3x7.7	102	6.3x7.7	125								
	8x6.5	110	8x6.5	135								
330	6.3x7.7	155										
	8x6.5	170										

Ripple Current (mA, rms) at 85℃ 120Hz