KV Series

Features

- ◆ 85℃ Low leakage curvent case diameter φ4 ~ φ8
- ◆ Reflow soldering is available
- ◆ Available for high density mounting
- ◆ RoHS Compliant

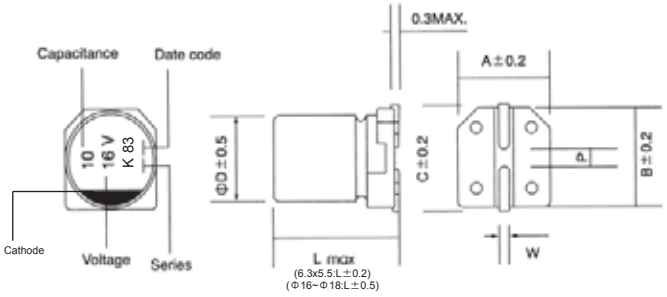
Specifications

Item	Performance Characteristics
Operating Temperature Range	-40~ +85℃
Rated Voltage Range	6.3~50 VDC
Capacitance Range	0.1 to 330μF
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 (tanδ，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 Rated 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 / 3 / 3 / 3
Endurance	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 Endurance. 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 tanδ: 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	1.0	1.20	1.30	1.50
100＜CAP≦330μF	0.8	1.0	1.10	1.15	1.20

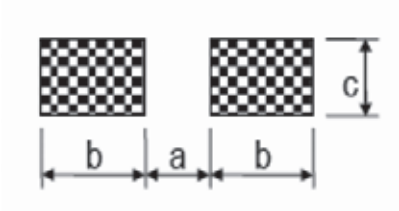
Diagram of Dimensions:(unit:mm)



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	6.1	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
12.5	14	13.0	13.0	13.9	1.0~1.4	4.5
16	17	17.0	17.0	18.0	1.0~1.4	6.6
16	21.5	17.0	17.0	18.0	1.0~1.4	6.6
18	16.5	19.0	19.0	20.0	1.0~1.4	6.6
18	21.5	19.0	19.0	20.0	1.0~1.4	6.6

SMD

Recommended land pattern:(unit:mm)



ΦDxL	a	b	c
4xall	1	2.6	1.6
5xall	1.4	3	1.6
6.3xall	2.1	3.5	1.6
8xL(height ≤6.5)	2.1	4.5	1.6
8xL(height>6.5)	2.8	4.2	1.9
10xall	4.3	4.4	1.9
12.5xall	4.3	5.8	2.5
16xall	6	6.5	3.5
18xall	6	7.5	3.5

Case Size

WV (Vdc)	Cap (uF)	Size (mm)	Rated Ripple current (mArms/85℃ /120Hz)
6.3	10	4x5.5	15
6.3	22	4x5.5	28
6.3	33	4x5.5	37
6.3	47	4x5.5	45
6.3	100	5x5.5	70
6.3	220	6.3x7.7	102
6.3	220	8x6.5	110
6.3	330	6.3x7.7	155
6.3	330	8x6.5	170
10	10	4x5.5	23
10	22	4x5.5	33
10	33	5x5.5	41
10	47	6.3x5.5	52
10	100	6.3x7.7	75
10	100	8x6.5	80
10	220	6.3x7.7	125
10	220	8x6.5	135
16	4.7	4x5.5	10
16	10	4x5.5	23
16	22	5x5.5	37
16	33	6.3x5.5	49
16	47	6.3x5.5	58
16	100	6.3x7.7	85
16	100	8x6.5	92
25	3.3	4x5.5	10
25	4.7	4x5.5	16
25	10	4x5.5	27
25	22	5x5.5	42

WV (Vdc)	Cap (uF)	Size (mm)	Rated Ripple current (mArms/85℃ /120Hz)
25	33	6.3x5.5	52
25	47	6.3x7.7	65
25	47	8x6.5	70
25	100	6.3x7.7	102
25	100	8x6.5	110
35	2.2	4x5.5	8
35	3.3	4x5.5	15
35	4.7	4x5.5	18
35	10	6.3x5.5	29
35	22	6.3x5.5	46
35	33	6.3x7.7	58
35	33	8x6.5	62
35	47	6.3x7.7	75
35	47	8x6.5	80
50	0.1	4x5.5	1
50	0.22	4x5.5	2
50	0.33	4x5.5	3
50	0.47	4x5.5	4
50	1	4x5.5	8
50	2.2	4x5.5	13
50	3.3	4x5.5	17
50	4.7	6.3x5.5	20
50	10	6.3x5.5	33
50	22	6.3x7.7	48
50	22	8x6.5	52
50	33	6.3x7.7	66
50	33	8x6.5	71