

CV Series Chip type



Features

- ◆ Chip type ,Low impedance
- ◆ Chip type with load life of 7000 hours at +105°C
- ◆ Designed for surface mounting on high density PC board
- ◆ Applicable to automatic mounting machine using carrier tape
- ◆ Complied to the RoHS directive

Specifications

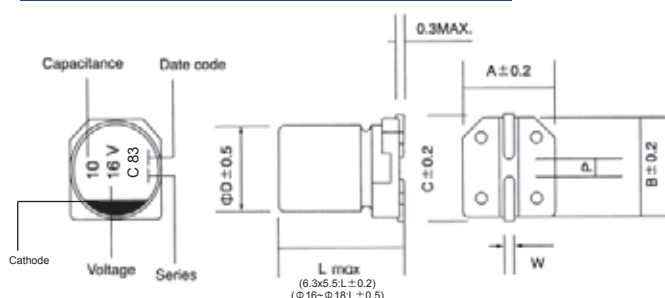
Item	Performance Characteristics						
Operating Temperature Range	-25 to +105°C						
Rated Voltage Range	6.3~50 VDC						
Capacitance Range	22 to 1500μF						
Capacitance Tolerance	±20%(120Hz,+20°C)						
Leakage Current (+20°C,max.)	I ≤0.01 CV or 3 (μA)After 2 minutes whichever is greater measured with rated working voltage applied.						
Dissipation Factor (tan δ , at 20°C , 120Hz)	Working Voltage(VDC)	6.3	10	16	25	35	50
	D.F.(%)max.	32	28	26	16	14	14
Low Temperature Characteristics (at 120Hz)	Impedance ratio max (at: 120Hz)						
	Working voltage(VDC)	6.3	10	16	25	35	50
	Z-25°C / Z+20°C						
		4	3	2	2	2	2
Endurance	Test condition						
	Duration time	: 7000 Hrs					
	Ambient temperature	:+105°C					
	Applied voltage	:Rated DC working voltage					
	After test requirement at +20°C						
	Capacitance change	: Within ±30% of initial value					
	Dissipation factor	: Less than 300% of specified value					
	Leakage current	: Less than specified value					
Shelf Life	Test condition						
	Duration time	:1000 Hrs					
	Ambient temperature	:+105°C					
	Applied voltage	:None					
	After test requirement at +20°C	: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 following specifications shall be satisfied when the capacitors are restored to20°C after exposing them at 250°C for 30 seconds.						
	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

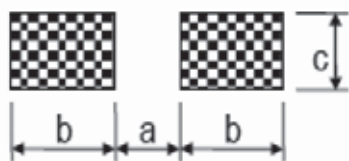
CAP(μF)\Frequency(Hz)	60(50)	120	500	1K	10K~100K
0.1 ≤ CAP ≤ 100 μF	0.53	0.67	0.8	0.87	1
100 < CAP ≤ 1000 μF	0.67	0.83	0.92	0.96	1

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

Diagram of Dimensions:(unit:mm)



Recommended land pattern:(unit:mm)



Φ DxL	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/105°C /100KHz)	Max Imp.(Ω) at 20°C/100KHz
6.3	100	6.3x7.7	140	1.10
6.3	150	6.3x7.7	180	0.90
6.3	220	6.3x7.7	230	0.75
6.3	330	8x10.5	400	0.50
6.3	470	8x10.5	600	0.22
6.3	680	10x10.5	700	0.20
6.3	1000	12.5x14	1100	0.10
6.3	1500	16x17	1500	0.08
10	100	6.3x7.7	140	1.10
10	150	6.3x7.7	180	0.90
10	220	6.3x7.7	230	0.75
10	330	8x10.5	400	0.50
10	470	8x10.5	600	0.22
10	680	10x10.5	700	0.20
10	1000	12.5x14	1100	0.10
10	1500	16x17	1500	0.08
16	100	6.3x7.7	140	1.10
16	150	8x10.5	250	0.60
16	220	8x10.5	280	0.40
16	330	8x10.5	600	0.22
16	470	8x10.5	600	0.22
16	470	10x10.5	850	0.16
16	680	12.5x14	1100	0.10
16	1000	16x17	1500	0.08
25	22	6.3x7.7	95	1.50
25	33	6.3x7.7	120	1.30
25	47	6.3x7.7	140	1.10
25	100	8x10.5	280	0.70
25	150	8x10.5	380	0.60
25	220	8x10.5	600	0.22
25	330	8x10.5	650	0.20
25	390	10x10.5	750	0.19
25	470	10x10.5	850	0.16
25	680	12.5x14	1100	0.10
25	1000	16x17	1500	0.08
35	47	6.3x7.7	230	1.00
35	100	8x10.5	600	0.22
35	220	10x10.5	850	0.16
35	330	12.5x14	1100	0.10
35	470	16x17	1500	0.08
50	47	8x10.5	350	0.53
50	100	8x10.5	350	0.53
50	100	10x10.5	400	0.51
50	150	10x10.5	450	0.48
50	220	12.5x14	850	0.4
50	330	16x17	1100	0.3