CTV series

- Chip type with 8Φ~16Φ, 125℃, 5000 hours, long life product, Anti-Vibration
- Designed for automobile modules and other high temperature applications
- AEC-Q200 Compliant
- RoHS Compliant

SPECIFICATIONS

Items	Characteristics				
Capacitance Tolerance	±20% (120Hz , 20℃)				
Operating Temperature Range	–40℃ ~ + 125℃				
Rated Voltage Range	16 ~ 50VDC				
Capacitance Range	33 ~ 2200μF				
Leakage Current	I≦ 0.01CV or 3(μA), which is greater. (After 2 minutes application of DC rated voltage at 20℃)				
Dissipation Factor (tan δ)	Measurement Frequency:120Hz. Temperature: 20℃				
	Rated Voltage(V)	16	25	35	50
	tanδ (Max)	0.20	0.20	0.14	0.14
Low Temperature Stability	Measurement Frequency:120Hz				
Impedance Ratio(Max)	Rated Voltage(V)	16	25	35	50
	Z(-25℃) / Z(20℃)	5	2	2	2
	Z(-40℃) / Z(20℃)	8	4	3	3
Load Life	Φ6.3~Φ10: 2000 hours; Φ12.5: 3000 hours; Φ16: 5000 hours with application of rated voltage at 125℃				
	Capacitance Change	within ±30% of Initial Value			
	tan δ	300% or less of Initial Specified Value			
	Leakage Current	Initial Specified Value or less			
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1000 hours 125℃ without voltage applied. Before the measurement, the capacitance shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.				
	Capacitance Change	Within ±30% of Initial Value			
	tan δ	300% or less of Initial Specified Value			
	Leakage Current	Initial Specified Value or less			
Resistance to Soldering Heat	The capacitors shall be kept on the hott plate maintained at 250℃ for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristics requirements listed at right.	Capacitance Change	Within ± 10% of Initial Value		
		tan δ	Initial Specified Value		
		Leakage Current	Initial Specified Value or less		
Marking	Black print on the case top				

Frequency Coefficient of Permissible Ripple Current

Frequency (Hz) / Capacitance (μF)	100 ≦ F < 1K	1K ≦ F < 10K	10K ≦ F < 100K	100K ≦ F
Coefficient	0.60	0.85	0.93	1.00

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5℃ rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

DIMENSIONS(mm)

■ **Chip Type**

Fig.1 ΦD=8~10mm

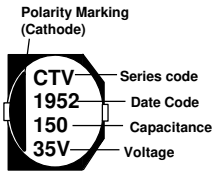
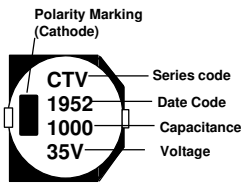
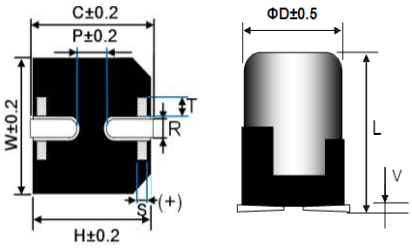


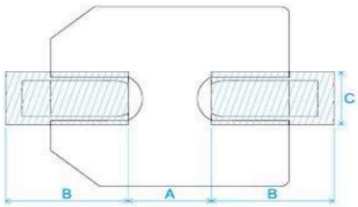
Fig.2 ΦD≧12.5mm





Size	ΦD	L	W	H	C	R	P	S	T	Vmax
8*10.5	8.0	10.5±0.5	8.3	8.3	9.0	0.7~1.1	3.2	0.7	1.3	0.3
10*10.5	10.0	10.5±0.5	10.3	10.3	11.0	1.0~1.4	4.5	0.7	1.3	0.3
12.5*13.5	12.5	13.5±1	13.5	13.5	14.2	1.0~1.4	4.5	2.2	2.4	0.4
16*16.5	16.0	16.5±1	17.0	17.0	18.0	1.4~1.8	6.4	3.0	2.0	0.4
18*21.5	18	21.5±1	19.0	19.0	20.0	1.4~1.8	6.4±0.2	4.0±0.5	2.0±0.5	0.4

■ **Land / Pad pattern**



DxL	A	B	C
Φ4	1	2.6	1.6
Φ5	1.4	3	1.6
Φ6.3	1.9	3.5	1.6
Φ8	3	3.5	2.5
Φ10	4	4	2.5
Φ12.5	4.3	5.8	2.5
Φ16	6.6	6.5	5
Φ18	6.6	7.7	5
Φ8(G)	2.5	4.5	4.7
Φ10(G)	3.8	4.8	4.7
Φ12.5(G)	3.8	6.1	6.9
Φ16(G)	5	8	9.5
Φ18(G)	5	8.6	9.5

"(G)" "Anti-vibration Structure"

Electric Characteristics

Su'scon P/N	Cap. (uF)	Cap. Tol. (%)	Rate Volt. (V-DC)	Surge Volt. (V-DC)	Oper. Temp. (℃)	Nominal Case Size D*L(mm)	Leakage Current Max (uA)	D.F. MAX (%)	R.C 100KHz (mA rms)	IMP 100KHz at 25℃(Ω)Max	Load Life (hours)
CTV035M151GABPE50V00R	150	±20	35	40.3	125	10*10.5	52	14	500	0.150	2000

REMARKS:

1. **Dissipation Factor Test:** at 20℃, 120 Hz
2. **Capactitance Test:** at 20℃, 120 Hz
3. **Ripple Current Test:** at 125℃, 100K Hz
4. **Leakage Current:** Initial specified value or less
5. **When have characteristic requested:** Load life & shelf life test and etc., judgment standard reference to our catalogue.
6. **Remarks:** Su'scon Part Number with suffix code "A" is specially offered for automotive project, which meets AEC-Q200 standard.

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