

# CTS series

- Chip type with 8Φ~16Φ, 125°C, 2000 hours~5000 hours, long life product.
- Designed For automobile modules and other high temperature applications.
- RoHS Compliance.
- 8Φ~16ΦV-Chip 型, 125°C, 2000小時~5000小時 長壽命產品。
- 專為汽車模塊和其它高溫應用設計。



## SPECIFICATIONS

Items 項目	Characteristics 特性				
Capacitance Tolerance 靜電容量誤差	± 20%(120Hz,20°C)				
Operating Temperature Range 適用溫度範圍	-40 ~ +125°C				
Rated Voltage Range 額定電壓範圍	16~50VDC				
Capacitance Range 靜電容量範圍	10 ~ 3900μF				
Leakage Current 洩漏電流	$I \leq 0.01CV$ or $3(\mu A)$ , which is greater. ( After 2 minutes application of DC rated voltage, at 20°C)				
Dissipation Factor 散逸因素( tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C				
	Rated Voltage(V)	16	25	35	50
	tan δ(Max)	0.20	0.20	0.14	0.14
Low Temperature Stability 低溫特性 Impedance Ratio(Max) 阻抗比率(最大值)	Measurement Frequency: 120Hz.				
	Rated Voltage(V)	16	25	35	50
	Z(-25°C)/Z(20°C)	5	2	2	2
	Z(-40°C)/Z(20°C)	8	4	3	3
Load Life 負荷壽命	5000hours ,with application of rated voltage at 125°C(Φ8~Φ10:2000hours; Φ12.5:3000hours)				
	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 放置壽命	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours 125°C without voltage applied. Before the measurement, the capacitor 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 焊錫耐熱性	The capacitors shall be kept on the hot plate maintained at 250°C 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
Standards 參照標準	IEC 60384-4 (JIS C 5101-4)				

## Frequency Coefficient of Permissible Ripple Current

Frequency (Hz)	100 ≤ F < 1K	1K ≤ F < 10K	10K ≤ F < 100K	100K ≤ F
Capacitance (μF)				
全系列	0.60	0.85	0.93	1.00

CTS

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**DIMENSIONS(mm)**

Chip Type

Fig.1  $\Phi D=6.3\sim 10\text{mm}$

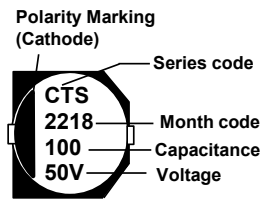
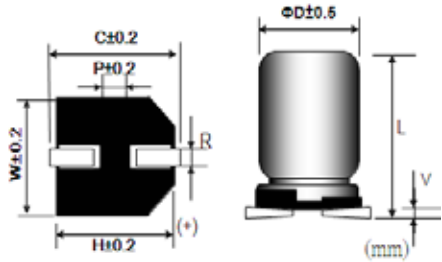
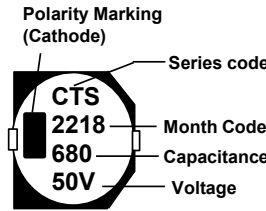


Fig.2  $\Phi D\geq 12.5\text{mm}$



(mm)

Size	$\Phi D$	L	W	H	C	R	P	Vmax
6.3 × 6.0	6.3	6.0 ± 0.3	6.6	6.6	7.2	0.5~0.8	2.1	0.3
6.3 × 7.7	6.3	7.7 ± 0.3	6.6	6.6	7.2	0.5~0.8	2.1	0.3
8 × 10	8.0	10 ± 0.5	8.3	8.3	9.0	0.7~1.1	3.2	0.3
10 × 10	10.0	10 ± 0.5	10.3	10.3	11.0	0.7~1.3	4.5	0.3
12.5 × 13.5	12.5	13.5 ± 0.5	13.0	13.0	13.7	1.1~1.4	4.5	0.4
16 × 16.5	16.0	16.5 ± 0.5	17.0	17.0	18.0	1.4~1.8	6.4	0.4
18 × 16.5	18.0	16.5 ± 1.0	19.0	19.0	20.0	1.4~1.8	6.4	0.4
18 × 21.5	18.0	21.5 ± 1.0	19.0	19.0	20.0	1.4~1.8	6.4	0.4

**STANDARD RATINGS**

D×L(mm) ; R.C.(mA rms) at 125°C 100KHz, ESR( $\Omega$  max) at 20°C 100KHz.

Cap ( $\mu F$ )	V	16.0			25			35			50		
		Item	D x L	R.C.	ESR	D x L	R.C.	ESR	D x L	R.C.	ESR	D x L	R.C.
10											6.3x6.0	70	2.00
22								6.3x6.0	110	1.60			
33					6.3x6.0	110	1.60	6.3x6.0	110	1.60			
								6.3x7.7	200	0.45			
47	6.3x6.0	110	1.60				6.3x7.7	200	0.45	8x10	250	0.45	
100	6.3x7.7	200	0.45	6.3x7.7	200	0.45	8x10	300	0.18	10x10	350	0.30	
160							8x10	300	0.18				
220				8x10	300	0.18	10x10	500	0.11	12.5x13.5	700	0.15	
270				8x10	300	0.18							
300							10x10	500	0.11				
330	8x10	300	0.18	10x10	500	0.11	12.5x13.5	1200	0.08				
390	8x10	300	0.18										
470	10x10	500	0.11	10x10	500	0.11	12.5x13.5	1200	0.08	16x16.5	1000	0.09	
620							12.5x13.5	1200	0.08				
680	10x10	500	0.11	12.5x13.5	1200	0.08	16x16.5	1800	0.05	18x16.5	1200	0.07	
910				12.5x13.5	1200	0.08							
1000	12.5x13.5	1200	0.08	16x16.5	1800	0.05	16x16.5	1800	0.05	18x21.5	1650	0.05	
1500	12.5x13.5	1200	0.08	16x16.5	1800	0.05	18x16.5	2000	0.045				
2200	16x16.5	1800	0.05	18x21.5	2000	0.045	18x21.5	2200	0.04				
3300	18x16.5	2000	0.045	18x21.5	2200	0.04							
3900	18x21.5	2200	0.04										

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