

### Type: SSC SMD Chip Capacitors 貼片電容器

#### Features 特性

- Miniature size and light weight.
- High capacitance, performance, and reliability.
- 體積小、重量輕。
- 容量大、性能優及極佳的信賴性。



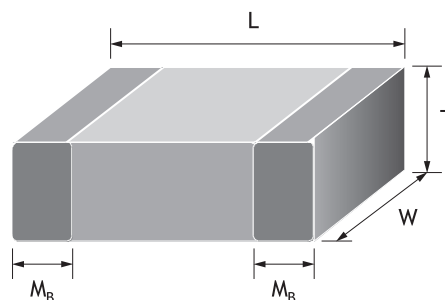
#### Applications 用途

- Consumer and industrial electronic equipment.
- Bypass timing.
- General purpose.
- 民生用及工業用電子機器。
- 旁路應用。
- 一般用途。

#### Specifications 規格

Dielectric 電介質	NPO	X5R	X7R	Y5V
Rated Voltage 額定電壓	6.3VDC ~ 3000VDC			
Capacitance Range 電容量範圍	1pF to 100μF			
Capacitance Tolerance 容量誤差	B = ±0.1pF C = ±0.25pF D = ±0.5pF Note: B, C, D: Cap. < 10pF F, G, J, K, M, Z: Cap. ≥ 10pF	J = ±5% K = ±10% M = ±20% Z = +80% ~ -20%		M = ±20% Z = +80% ~ -20%
Operating Temperature 操作溫度	-55°C ~ +125°C	-55°C ~ +85°C	-55°C ~ +125°C	-25°C ~ +85°C
Capacitance Change 電容量變化	0 ± 30ppm/°C	±15%		+30% ~ -80%
Capacitance Test: @25°C or referred to +25°C 電容量測試	1.0 ± 0.2Vrms, 1kHz ± 10% 1.0 ± 0.2Vrms, 1MHz ± 10% for capacitance ≤ 1000pF		1.0 ± 0.2 Vrms, 1kHz ± 10%	
Q/Dissipation Factor 損耗因數	C < 30pF: Q ≥ 400 + 20C C ≥ 30pF: Q ≥ 1000 0.1% Max.	≥ 50V: 2.5% ~ 3% 25V: ≤ 3.5% ~ 10% 16V: ≤ 3.5% ~ 10% 10V: ≤ 5.0% ~ 10% 6.3V: ≤ 10% ~ 15%		≥ 50V: 5% ~ 7% 25V: ≤ 5% ~ 9% 16V: ≤ 7% ~ 12.5% 10V: ≤ 12.5% 6.3V: ≤ 20%
Insulation Resistance 絕緣阻抗	10GΩ or 500MΩ.μF, whichever is less than 25°C			
Dielectric Strength 耐電壓	≤ 50V 51V ~ 100V 200V ~ 300V 500V ~ 990V 1000V ~ 3000V	250% of rated voltage for 5 seconds less than 50mA 250% of rated voltage for 5 seconds less than 10mA 200% of rated voltage for 5 seconds less than 10mA 150% of rated voltage for 5 seconds less than 10mA 120% of rated voltage for 5 seconds less than 10mA		

#### Dimensions 尺寸



Dimensions Inch (mm)	0402 (1005)	0603 (1608)	0805 (2012)	1206 (3216)	1210 (3225)	1808 (4520)	1812 (4532)
L (mm)	1.00±0.05	1.60+0.15/-0.10	2.00±0.20	3.20±0.20	3.20±0.40	4.50±0.40	4.50±0.40
W (mm)	0.50±0.05	0.80+0.15/-0.10	1.25±0.20	1.60±0.20	2.50±0.30	2.03±0.25	3.20±0.30
T (mm)	0.50±0.05	0.80+0.15/-0.10	0.60~1.25±0.20	0.80~1.60+0.30/-0.10	0.95~2.5±0.30	1.25~2.0±0.20	1.25~2.50±0.30
MB (mm)	0.25+0.05/-0.10	0.40±0.15	0.50±0.20	0.60±0.20	0.75±0.25	0.75±0.25	0.75±0.25

### Capacitance Range 電容量範圍

Size		NPO			X5R			X7R				Y5V			
		10/25V	50V	100V	6.3V	10V	16V	10/16V	25V	50V	100V	10V	16/25V	50V	100V
0402	Min.	0.5pF	0.5pF	0.5pF	0.22µF	0.056µF	0.027µF	0.012µF	5600pF	100pF	---	0.15µF	0.047µF	0.01µF	---
	Max.	470pF	220pF	150pF	1.0µF	0.1µF	0.1µF	0.1µF	0.022µF	0.01µF	---	0.47µF	0.1µF	0.033µF	---
0603	Min.	0.5pF	0.5pF	0.5pF	0.68µF	0.33µF	0.33µF	0.082µF	0.033µF	100pF	100pF	0.68µF	0.22µF	0.01µF	---
	Max.	3300pF	1000pF	560pF	2.2µF	1.0µF	1.0µF	0.22µF	0.1µF	0.1µF	0.01µF	1µF	1µF	0.15µF	---
0805	Min.	0.5pF	0.5pF	0.5pF	2.2µF	2.2µF	2.2µF	0.39µF	0.082µF	100pF	100pF	---	0.47µF	0.01µF	0.01µF
	Max.	0.012µF	4700pF	3900pF	10µF	4.7µF	4.7µF	1µF	1µF	0.22µF	0.1µF	---	1µF	0.47µF	0.15µF
1206	Min.	1.5pF	1.5pF	1.5pF	4.7µF	2.2µF	1.5µF	0.27µF	150pF	150pF	150pF	---	0.01µF	0.01µF	0.01µF
	Max.	0.039µF	0.015µF	8200pF	22µF	10µF	4.7µF	4.7µF	1µF	1µF	0.22µF	---	1µF	1µF	0.22µF
1210	Min.	22pF	22pF	10pF	---	2.2µF	2.2µF	---	0.33µF	1000pF	1000pF	---	---	0.1µF	0.01µF
	Max.	0.015µF	0.015µF	0.015µF	---	10µF	10µF	---	1µF	1µF	0.56µF	---	---	1µF	0.33µF
1812	Min.	---	1000pF	10pF	---	---	---	---	0.68µF	1000pF	1000pF	---	10µF	1µF	---
	Max.	---	0.033µF	0.033µF	---	---	---	---	1µF	1µF	1µF	---	47µF	6.8µF	---

### Capacitance Range (High Voltage) 電容量範圍 (高壓)

Size		NPO						X7R						Y5V	
		200V	250V	500V	1000V	2000V	3000V	200V	250V	500V	1000V	2000V	3000V	200V	250V
0603	Min.	22pF	22pF	---	---	---	---	---	---	---	---	---	---	---	---
	Max.	100pF	100pF	---	---	---	---	---	---	---	---	---	---	---	---
0805	Min.	0.5pF	0.5pF	0.5pF	---	---	---	100pF	100pF	100pF	---	---	---	0.01µF	0.01µF
	Max.	820pF	390pF	390pF	---	---	---	0.022µF	0.022µF	2700pF	---	---	---	0.068µF	0.068µF
1206	Min.	1.5pF	1.5pF	1.5pF	1.5pF	1.5pF	---	150pF	150pF	150pF	150pF	150pF	150pF	0.01µF	0.01µF
	Max.	2200pF	1000pF	1000pF	470pF	220pF	---	0.1µF	0.1µF	0.033µF	4700pF	1500pF	1000pF	0.15µF	0.15µF
1210	Min.	10pF	10pF	10pF	10pF	10pF	---	1000pF	1000pF	1000pF	1000pF	---	---	0.01µF	0.01µF
	Max.	3900pF	2700pF	1800pF	470pF	220pF	---	0.47µF	0.47µF	0.056µF	0.01µF	---	---	0.15µF	0.15µF
1808	Min.	---	---	---	2.2pF	2.2pF	2.2pF	---	---	---	150pF	150pF	150pF	---	---
	Max.	---	---	---	1000pF	680pF	270pF	---	---	---	0.01µF	2200pF	1000pF	---	---
1812	Min.	10pF	10pF	10pF	10pF	10pF	10pF	1000pF	1000pF	1000pF	270pF	270pF	680pF	0.01µF	0.01µF
	Max.	6800pF	3300pF	3300pF	1500pF	1000pF	470pF	0.47µF	0.47µF	0.1µF	0.015µF	4700pF	820pF	0.68µF	0.68µF