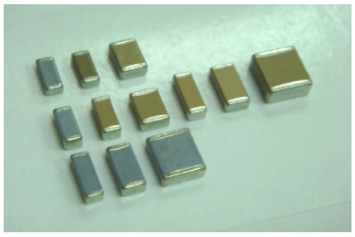
Multilayer Ceramic Capacitors

[X2 and X1/Y2 Safety Certified Capacitors]

SCC Series Rated up to 305Vac



The SCC series X2 and X1/Y2 rated at 250Vrms and X2 rated at 305Vrms safety capacitors are designed specifically for use in modem, facsimile, telephone and other electronic equipment. These parts are compliant to IEC60384-14 , UL60950-1 and UL60384-14 standards. These capacitors are available in NP0 (C0G) and X7R dielectrics.

◆ Features

- ❑ Small size & high capacitance
- ❑ Suitable for reflow soldering
- ❑ Surface mount
- ❑ Safety standard approval by IEC60384-14 , UL 60950-1 and UL60384-14
- ❑ RoHS compliant and Lead(Pb) free option
- ❑ Certified to:
  TUV R50005234, R50103496 & UL E229738
  TUV R50162550 & UL E300818
  & UL E229738 for Lead(Pb) free

◆ Applications

- ❑ The X2 and X1/Y2 (250Vrms) and X2- (305Vrms) are specially designed for use in Modem, Facsimile, Telephone and other telecommunication equipment, electronic equipment for lighting and surge protection, EMI filtering and Isolation.

◆ Safety Details of Specifications

IEC 60384-14:2013+AMD1:2016	Meets the electrical requirements and certification for equipment requiring Class X1/Y2 and X2 devices.
EN 60384-14:2013+AMD1:2016	
UL 60384-14：2014, 2nd Edition	Component certified for equipment requiring UL-60384-14 compliance
UL 60950-1：2007, 2nd Edition	TNV/SELV isolation capacitors certified To UL 60950-1

◆ How To Order

SCC	1808	X	102	K	502	T	S

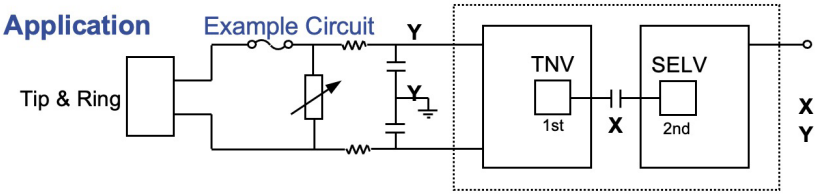
Product Code	**Chip Size**	**Dielectric**	**Capacitance Unit : pF**	**Tolerance**	**Class**	**Packaging**	**Special Requirement**
SCC: Safety Certified MLCC	Ex.: 1808 1812 2208 2211 2220 2825	Ex.: N: NP0 X: X7R	Ex.: 2R0:2.0pF 100:10x10^0 471:47x10^1 182:18x10^2	Ex.: J :+/-5% K :+/-10% M :+/-20%	Ex.: 202: X2 252 :X2 (305Vrms) 502: X1/Y2 602: X1/Y2 for SCC2208N, SCC2211N, SCC2220N	Ex.: T: T&R 7” R: T&R 13” B: Bulk	Ex.: S: Arc Prevention Coating X: Polymer Termination (Super Term) Z: Arc Prevention Coating & Polymer Termination (Super Term) G: Lead (Pb) Free

◆ Summary of Specifications

Rated Voltage	AC 250Vrms and AC 305Vrms
Temperature Coefficient	NP0 : < ±30ppm/ ℃ , -55 ℃ to +125 ℃ (EIA Class I)
	X7R : < ±15% , -55 ℃ to +125 ℃ (EIA Class Ⅱ)
Capacitance Range	X1/Y2 : 2.0pF ~ 4700pF
	X2 – 250Vrms : 2pF ~ 56nF X2 – 305Vrms : 150pF ~ 33nF
Quality and Dissipation Factor	NP0 : Q≧1000 , X7R : D.F.≦2.5%
Climatic Category	55/125/21
Insulation Resistance	10GΩ
Voltage Proof	X Capacitor : Applied Voltage 1075Vdc(4.3Ur),1312Vdc(4.3Ur) Y Capacitor : Applied Voltage 1500Vac
Impulse	X2 : 2.5KV , Y2 : 5KV for three times
Aging	NP0: 0 % , X7R: 1.0 % per decade hr., typically

◆ Application

Example Circuit



X : Across the line (Ex.: SCC1808N151K202TG)
Y : Line by pass (Ex.: SCC2211X102K502TS)

◆ Capacitance Range

250Vrms

Class	Size	Temperature Characteristic	Rated Voltage	Certificate	Capacitance Range
X2	1808	NP0	250Vrms	TUV/UL	
	1808	X7R	250Vrms	TUV/UL	
	1812	X7R	250Vrms	TUV/UL	
X1/Y2	1808	NP0	250Vrms	TUV/UL	
	1808	X7R	250Vrms	TUV/UL	
	1812	NP0	250Vrms	TUV/UL	
	1812	X7R	250Vrms	TUV/UL	
	2208	NP0	250Vrms	TUV/UL	
	2208	X7R	250Vrms	TUV/UL	
	2211	NP0	250Vrms	TUV/UL	
	2211	X7R	250Vrms	TUV/UL	
	2220	NP0	250Vrms	TUV/UL	
	2220	X7R	250Vrms	TUV/UL	

Capacitance Range: 2R0, 5R0, 6R8, 8R2, 100, 120, 150, 180, 220, 270, 330, 360, 390, 470, 560, 680, 820, 101, 121, 131, 151, 181, 221, 271, 331, 391, 471, 561, 681, 821, 102, 122, 152, 182, 222, 272, 332, 472

Class	Size	Temperature Characteristic	Rated Voltage	Certificated	Capacitance Range
X2	2220	X7R	250Vrms	TUV/UL	
	2825	X7R	250Vrms	UL	

Capacitance Range: 101, 121, 131, 151, 181, 221, 271, 331, 391, 471, 561, 681, 821, 102, 122, 152, 182, 222, 272, 332, 472, 562, 682, 822, 103, 123, 153, 183, 223, 273, 333, 393, 473, 563, 683, 823, 104, 124

'X' denotes values that have been tested to a rated voltage of 305Vac. TUV test report number 28208004 dated on May 27th, 2010.

305Vrms

Class	Size	Temperature Characteristic	Rated Voltage	Certificated	Capacitance Range
X2	2220	X7R	305Vrms	TUV/UL	

Capacitance Range: 180, 220, 270, 330, 360, 390, 470, 560, 680, 820, 101, 121, 131, 151, 181, 221, 271, 331, 391, 471, 561, 681, 821, 102, 122, 152, 182, 222, 272, 332, 472, 562, 682, 822, 103, 153, 223, 333, 473, 563