

# Multilayer Ceramic Chip Capacitors

[ Safety Capacitors – X2 and X1/Y2 ]

**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, 4th Edition	Meets the electrical requirements and certification for equipment requiring Class
EN 60384-14: 2013, 4th Edition	X1/Y2 and X2 devices.
UL 60384-14: 2014, 2 <sup>nd</sup> Edition	Component certified for equipment requiring UL-60384-14 compliance
UL 60950-1: 2007, 2 <sup>nd</sup> Edition	TNV/SELV isolation capacitors certified To UL 60950-1

#### **♦** How To Order

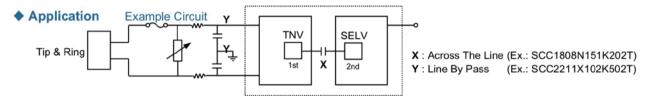
SCC	1808	Х	102	К	502	Т	S
Product Code SCC: Safety Approved MLCC	Chip Size  Ex.: 1808 1812 2208 2211 2220 2825	Dielectric Ex.: N: NP0 X: X7R	Capacitance Unit: pF Ex.: 2R0:2.0pF 100:10×10 <sup>0</sup> 471:47×10 <sup>1</sup> 182:18×10 <sup>2</sup>	Tolerance Ex.: J:+/-5% K:+/-10% M:+/-20%	Class  Ex.: 202: X2 252: X2 (305Vrms) 502: X1/Y2 602: X1/Y2 for SCC2208N, SCC2211N, SCC2220N	Packaging T: T&R 7" R: T&R 13" B: Bulk	Special Requirement 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
Tomporature Coefficient	NP0 : $< \pm 30$ ppm/ $^{\circ}$ C , -55 $^{\circ}$ C $\sim +125 ^{\circ}$ C (EIA Class I)
Temperature Coefficient	X7R : $<\pm15\%$ , -55 $^{\circ}$ C $\sim$ +125 $^{\circ}$ C (EIA Class II)
	X1/Y2 : 2.0pF ~ 4700pF
Capacitance Range	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., typical



# ◆ Capacitance Range

#### 250Vrms Capacitance Range Rated Temperature Class Size Certificate Voltage Characteristic 1808 NP0 250Vrms TUV/UL 1808 X7R 250Vrms TUV/UL X2 1812 X7R 250Vrms TUV/UL 1808 NP0 TUV/UL 250Vrms 1808 X7R 250Vrms TUV/UL 1812 NP0 250Vrms TUV/UL 1812 X7R 250Vrms TUV/UL 2208 NP0 250Vrms TUV/UL X1/Y2 2208 X7R 250Vrms TUV/UL 2211 NP0 250Vrms TUV/UL 2211 TUV/UL X7R 250Vrms 2220 NP0 250Vrms TUV/UL 2220 250Vrms TUV/UL X7R Capacitance Range Temperature Rated Class Size Certificated Characteristic Voltage 2220 X7R 250Vrms TUV/UL X2 2825 X7R 250Vrms UL

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

305Vrms																																	
Class	Size	Temperature Characteristic	Rated Voltage	Certificated	180	270	330	390	470	260	080	101	124	151	181	221 0	ар - /2	acit	and 44	ce Log	Rar LZ8	102 701	122	182	222	332	472	562	822	103	723	100	473 563
X2	2220	X7R	305Vrms	TUV/UL							T																						T

