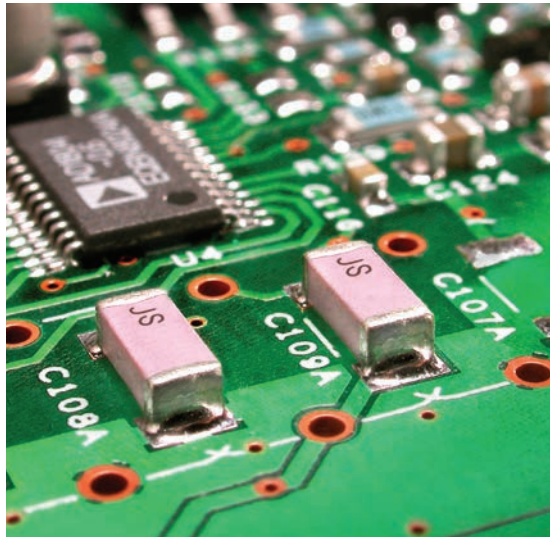


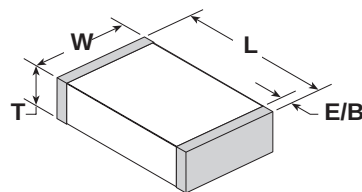


Johanson Dielectrics Type SC ceramic chip capacitors are designed for AC voltage surge and lightning protection in line-to-ground interface applications in computer networks, modem, facsimile and other equipment.

Johanson's safety capacitor offering includes four different case sizes in NP0 and X7R dielectric materials.

These devices are surface mount ready with barrier terminations and tape and reel packaging.

Information on capacitor safety ratings and certification details may be found below.



Polyterm® soft termination option for demanding environments & processes available on select parts, please contact the factory.

SAFETY RATING	VOLTAGE RATING	WITHSTANDING VOLTAGE	IMPULSE VOLTAGE	CASE SIZE	JOHANSON ORDERING P/N
X2	250 VAC	1,500 VAC	2,500 V	1808	302R29____V3E-****-SC
STANDARDS: IEC/EN 60384-14:2013 EN 60950 2006 • UL 60384-14, UL 60950-01 CERTIFICATIONS: TUV R 50227900 & T 72140662 • UL File E472557 & E212609					
X2	250 VAC	1,500 VAC	2,500 V	1812	302S43____V3E-****-SC
STANDARDS: IEC/EN 60384-14:2013 EN 60950 2006 • UL 60384-14, UL 60950-01 CERTIFICATIONS: TUV R 50227900 & T 72140662 • UL File E472557 & E212609					
X1/Y2	250 VAC	1,500 VAC	5,000 V	1808	502R29____V3E-****-SC
STANDARDS: IEC/EN 60384-14:2013 EN 60950 2006 • UL 60384-14, UL 60950-01 CERTIFICATIONS: TUV R 50227900 & T 72140662 • UL File E472557 & E212609					
X2	250 VAC	1,500 VAC	2,500 V	1812	502S43____V3E-****-SC
STANDARDS: IEC/EN 60384-14:2013 EN 60950 2006 • UL 60384-14, UL 60950-01 CERTIFICATIONS: TUV R 50227900 & T 72140662 • UL File E472557 & E212609					
X1/Y2	250 VAC	1,500 VAC	5,000 V	2211	502R30____V3E-****-SC
STANDARDS: IEC/EN 60384-14:2013 EN 60950 2006 • UL 60384-14, UL 60950-01 CERTIFICATIONS: TUV R 50227900 & T 72140662 • UL File E472557 & E212609					
X1/Y2	250 VAC	1,500 VAC	5,000 V	2220	502S47____V3E-****-SC
STANDARDS: IEC/EN 60384-14:2013 EN 60950 2006 • UL 60384-14, UL 60950-01 CERTIFICATIONS: TUV R 50227900 & T 72140662 • UL File E472557 & E212609					

X Capacitors are defined as suitable for use in situations where failure of the capacitor would not lead to danger of electric shock.

Y Capacitors are defined as suitable for use in situations where failure of the capacitor could lead to danger of electric shock.

SAFETY CERTIFIED

SAFETY CERTIFIED																																						
				INCHES		(MM)	5 pF10 pF12 pF15 pF18 pF22 pF27 pF33 pF47 pF56 pF68 pF100 pF120 pF150 pF180 pF220 pF270 pF330 pF470 pF560 pF680 pF1000 pF1200 pF1500 pF1800 pF2200 pF2700 pF3300 pF4700 pF																															
R29 / 1808		L W T E/B	.185 ±.015 .080 ±.010 .085 Max. .020 ±.010	(4.70 ±.38) (2.03 ±.25) (2.16) (0.51±.25)	DIELECTRIC NP0 X7R																																	
X2																																						
S43 / 1812		L W T E/B	.175 ±.010 .125 ±.010 .115 Max. .025 ±.015	(4.45 ±.25) (3.18 ±.25) (2.92) (0.64±.38)																																		
X2																																						
R29 / 1808		L W T E/B	.185 ±.015 .080 ±.015 .085 Max. .012 ±.015	(4.70 ±.38) (2.03 ±.38) (2.16) (0.30±.38)																																		
X1/Y2																																						
S43 / 1812		L W T E/B	.175 ±.010 .125 ±.010 .115 Max. .025 ±.015	(4.45 ±.25) (3.18 ±.25) (2.92) (0.64±.38)																																		
X1/Y2																																						
R30 / 2211		L W T E/B	.225 ±.016 .110 ±.010 .115 Max. .020 ±.010	5.72 ±.40) (2.80 ±.25) (2.92) (0.51±.25)																																		
X1/Y2																																						
S47 / 2220		L W T E/B	.225 ±.015 .200 ±.015 .150 Max. .025 ±.015	(5.72 ±.38) (5.08 ±.38) (3.81) (0.64±.38)																																		
X1/Y2																																						

HOW TO ORDER AC SAFETY CAPACITORS

P/N written: 302R29W102MV3E-****-SC

502	R29	W	102	M	V	3	E	****-SC
VOLTAGE	SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	TERMINATION	MARKING	PACKING	TYPE
302 = 250VAC [2500V Impulse] 502 = 250VAC [5000V Impulse]	R29=1808 R30=2211 S43=1812 S47=2220 AC2=2220	N = NP0 W = X7R	1st two digits are significant; third digit denotes number of zeros, R = decimal. 102 = 1000 pF 104 = 0.10 µF 5R0 = 5.0pF	J = ± 5% K = ± 10% M = ± 20%	V = NI Barrier with 100% Sn Plating (Matte) F = Polyterm flexible termination	3 = Required Safety Mark	E = Embossed 7" U = Embossed 13" No code = bulk Tape specs. per EIA RS481	SC = Safety Certified



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Johanson:

[302R29W471KV3ESC](#) [502R29N151JF3ESC](#) [502R30N100JV3ESC](#) [302R29W102KV3ESC](#) [302R29N151JV3ESC](#)
[502R29W221KV3ESC](#) [502R29N180JV3ESC](#) [302R29N101JV3ESC](#) [302R29N100JV3ESC](#) [502R29W102KV3ESC](#)
[502R29W681KV3ESC](#) [302R29N330JV3ESC](#) [302R29W152KV3ESC](#) [502R30W222KV3ESC](#) [302R29W681KV3ESC](#)
[502R29N330JV3ESC](#) [502R29N100KV3ESC](#) [502R30W102MV3ESC](#) [502R29W331KV3ESC](#) [302R29N101KV3ESC](#)
[302R29N221JV3ESC](#) [302R29N100JV3E-****-SC](#) [302R29N101JV3E-****-SC](#) [302R29N101KV3E-****-SC](#)
[302R29N151JV3E-****-SC](#) [302R29N221JV3E-****-SC](#) [302R29N330JV3E-****-SC](#) [302R29W102KV3E-****-SC](#)
[302R29W152KV3E-****-SC](#) [302R29W471KV3E-****-SC](#) [302R29W681KV3E-****-SC](#) [502R29N100KV3E-****-SC](#)
[502R29N151JF3E-****-SC](#) [502R29N180JV3E-****-SC](#) [502R29N330JV3E-****-SC](#) [502R29W102KV3E-****-SC](#)
[502R29W221KV3E-****-SC](#) [502R29W331KV3E-****-SC](#) [502R29W681KV3E-****-SC](#) [502R30N100JV3E-****-SC](#)
[502R30W102MV3E-****-SC](#) [502R30W222KV3E-****-SC](#) [502R30N102KV3E-****-SC](#) [502R30W151KV3E-****-SC](#)
[502R29W221MV3E-****-SC](#) [502R29N100JV3E-****-SC](#) [502R29N680JV3E-****-SC](#) [502R30N271KV3E-****-SC](#)
[502R30N102KV3U-****-SC](#) [502R29N270KV3E-****-SC](#) [502R30N331JV3E-****-SC](#) [502R29W151MV3E-****-SC](#)
[502R29W151KV3U-****-SC](#) [502R29N180JV4E-****-SC](#) [502R29W181MV3E-****-SC](#) [502R30N270KV3E-****-SC](#)
[502R29W221MV3U-****-SC](#) [502R29N270JV3E-****-SC](#) [502R30N561KV3E-****-SC](#) [502R30N271JV3E-****-SC](#)
[502R29N470JV3E-****-SC](#) [502R30W561KV3E-****-SC](#) [502R30N181JV3E-****-SC](#) [502R29N470KV3E-****-SC](#)
[502R30W151MV3E-****-SC](#) [502R30N680JV3E-****-SC](#) [502R30W222MV3E-****-SC](#) [502R29N150JV3E-****-SC](#)
[502R30N330JV3E-****-SC](#) [502R30W222KF3E-****-SC](#) [502R30N151KV3E-****-SC](#) [502R30N270JV3E-****-SC](#)
[502R30W181KV3E-****-SC](#) [502R30N100KV3E-****-SC](#) [502R30N101KV3E-****-SC](#) [502R30W221MV3E-****-SC](#)
[502R30N151JV3E-****-SC](#) [502R30N471JV3E-****-SC](#) [502R30N121JV3E-****-SC](#) [502R30N330KV3E-****-SC](#)
[502R30N681MV3E-****-SC](#) [502R30W272KV3E-****-SC](#) [502R30N221KV3E-****-SC](#) [502R30N560JV3E-****-SC](#)
[502R30W181MV3E-****-SC](#) [502R29N220JV3E-****-SC](#) [502R30N681KV3E-****-SC](#) [502R30W221KV3E-****-SC](#)
[502R30N681JV3E-****-SC](#) [502R30W102KV3E-****-SC](#) [502R30N331KV3E-****-SC](#) [502R29W471MV3U-****-SC](#)
[502R30N121KV3E-****-SC](#) [502R29W181KV3E-****-SC](#) [502R30N150JV3E-****-SC](#) [502R30N180KV3E-****-SC](#)
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