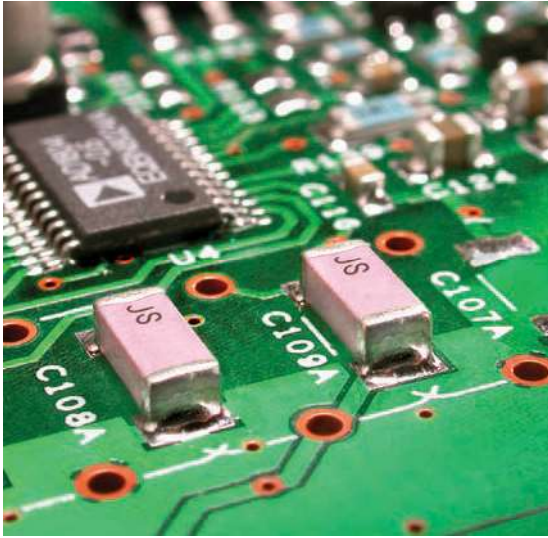




**THE DATASHEET OF
302R29W331KV3E-****-SC**



AC SAFETY CAPACITORS

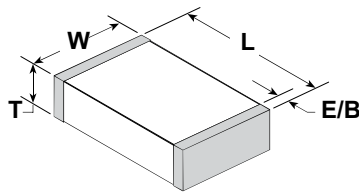


Johanson Dielectrics Type SC ceramic chip capacitors are designed for AC voltage surge and lightning protection in line-to-ground interface applications in computer networks, modem, facsimile and other equipment.

Johanson's safety capacitor offering includes four different case sizes in NPO 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.




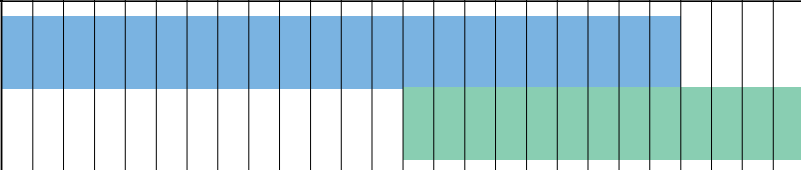

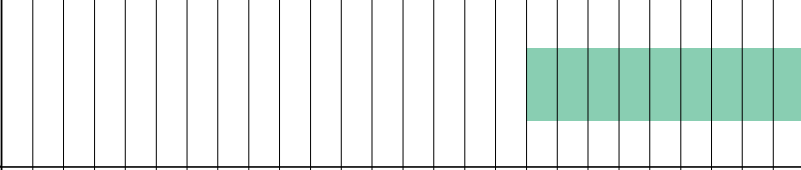

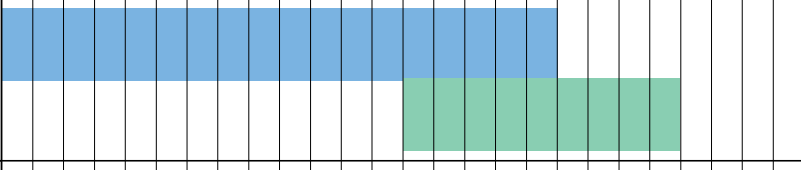

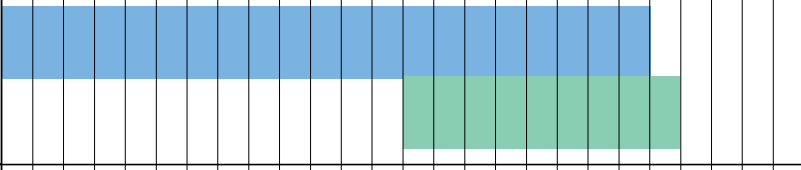

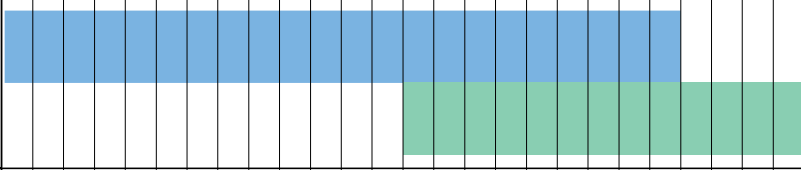

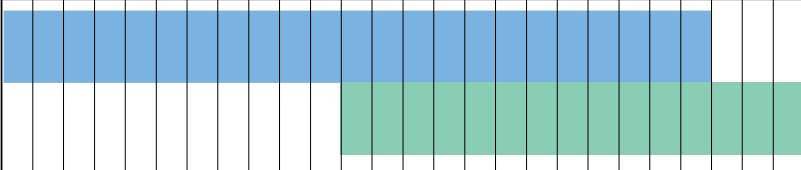

Polyterm® soft termination option for demanding environments & processes available on select parts, please contact the factory.

| 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 | | | | | |
| X1/Y2 | 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

| | | INCHES | (MM) | 5 pF | 10 pF | 12 pF | 15 pF | 18 pF | 22 pF | 27 pF | 33 pF | 47 pF | 56 pF | 68 pF | 100 pF | 120 pF | 150 pF | 180 pF | 220 pF | 270 pF | 330 pF | 470 pF | 560 pF | 680 pF | 1000 pF | 1200 pF | 1500 pF | 1800 pF | 2200 pF | 2700 pF | 3300 pF | 4700 pF |
|--|-----|------------|-------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--------------------------|---------|---------|---------|---------|
| R29 / 1808  X2 | L | .185 ±.015 | (4.70 ±.38) |  | | | | | | | | | | | | | | | | | | | | | | | | DIELECTRIC NPO X7R | | | | |
| | W | .080 ±.010 | (2.03 ±.25) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S43 / 1812  X2 | T | .085 Max. | (2.16) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | E/B | .020 ±.010 | (0.51±.25) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S43 / 1812  X2 | L | .175 ±.010 | (4.45 ±.25) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | W | .125 ±.010 | (3.18 ±.25) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R29 / 1808  X1/Y2 | T | .115 Max. | (2.92) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | E/B | .025 ±.015 | (0.64±.38) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R29 / 1808  X1/Y2 | L | .185 ±.015 | (4.70 ±.38) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | W | .080 ±.015 | (2.03 ±.38) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S43 / 1812  X1/Y2 | T | .085 Max. | (2.16) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | E/B | .020 ±.010 | (0.51±.25) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S43 / 1812  X1/Y2 | L | .175 ±.010 | (4.45 ±.25) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | W | .125 ±.010 | (3.18 ±.25) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R30 / 2211  X1/Y2 | T | .115 Max. | (2.92) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | E/B | .025 ±.015 | (0.64±.38) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R30 / 2211  X1/Y2 | L | .225 ±.016 | (5.72 ±.40) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | W | .110 ±.010 | (2.80 ±.25) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S47 / 2220  X1/Y2 | T | .115 Max. | (2.92) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | E/B | .020 ±.010 | (0.51±.25) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S47 / 2220  X1/Y2 | L | .225 ±.015 | (5.72 ±.38) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | W | .200 ±.015 | (5.08 ±.38) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S47 / 2220  X1/Y2 | T | .150 Max. | (3.81) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | E/B | .025 ±.015 | (0.64±.38) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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 = NPO 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 |



Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View 302R29W331KV3E-****-SC on WIN SOURCE](#)
-  [Johanson Dielectrics Inc. Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management