

HIGH RELIABILITY “CR” CAPACITORS

(TESTED SIMILARLY TO MIL-PRF-55681)

For applications that require a high level of reliability, Presidio recommends its high reliability “CR” capacitors. Tested similarly to MIL-PRF-55681 Group A, Presidio manufactures these chips on the same manufacturing line as its military product line. They may be used in both military and space applications. Please note these capacitors are NOT MIL-qualified.

QUALITY ASSURANCE PROVISIONS

Every lot undergoes the following inspection and tests:

- a) **Destructive Physical Analysis (DPA)** — A 32-piece sample is pulled from each lot and examined per relevant sections of EIA 469 and to verify adherence to Presidio’s internal design criteria.
- b) **Voltage Conditioning** — All parts receive a voltage conditioning at 2X rated voltage and 125°C for 100 hours. An accelerated voltage conditioning, following MIL-PRF-55681 guidelines, may be used at Presidio’s discretion.
- c) **Capacitance** — All parts are tested at 25°C and 1VACRMS in accordance with method 305 of MIL-STD-202.
- d) **Dissipation Factor (DF)** — See following table:

Voltage Rating	NPO	BX	X7R
16/25	.15%	3.5%	5.0%
50	.15%	2.5%	3.5%
> 50	.15%	2.5%	2.5%
- e) **Dielectric Withstanding Voltage (DWV)** — All parts are tested at 2.5X rated voltage in accordance with Method 301 of MIL-STD-202, or according to EIA/MIL Standards.
- f) **Insulation Resistance (IR @ 25°C)** — All parts are tested at 25°C and rated voltage in accordance with Method 302 of MIL-STD-202. The minimum IR required is 100,000 megohms or 1,000 megohm-microfarads.
- g) **Percent Defective Allowed (PDA)** — The cumulative PDA after voltage conditioning is 8%. Pieces rejected as out of tolerance for capacitance or visual screening will be removed from the lot but not counted in the PDA calculation.
- h) **Visual** — Performed on pieces in accordance with Presidio internal workmanship criteria.

- i) **Mechanical** — Level 1 AQL 1% in accordance with this catalog.
- j) **Class H Element Evaluation (optional)** — A MIL-PRF-38534 Appendix C Passive Element Class H element evaluation is available where the customer requires this testing. Element evaluation is not required on each lot, and must be specified on the purchase order.
- k) **Operating Temperature Range:** -55°C to +125°C

STANDARD PACKAGING

Product will be packaged in individual waffle trays.

DATA PACKAGE

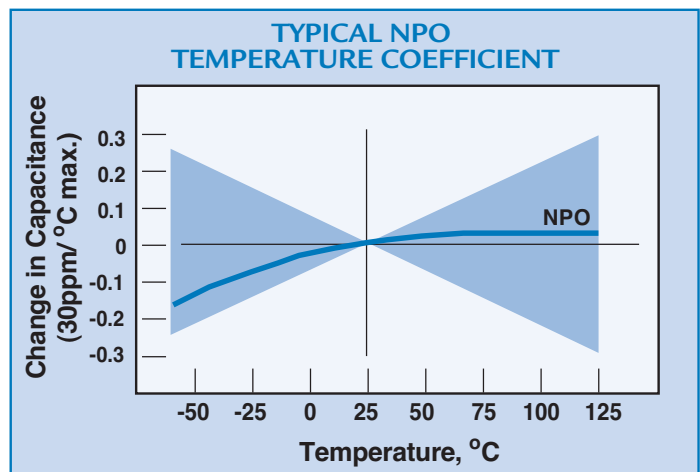
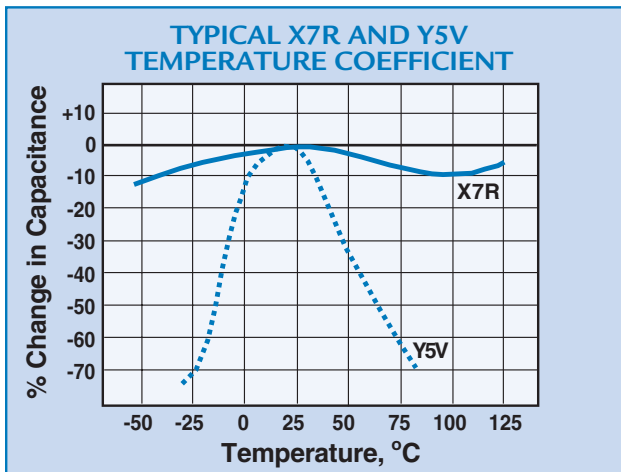
Data will be sent with each shipment including:

- a) **Destructive Physical Analysis Report (optional)** — Destructive Physical Analysis (DPA) report and photographs for each lot. Extra charge may apply.
- b) **Certificate of Compliance** — A Certificate of Compliance will be sent with each shipment.
- c) **Class H Element Evaluation** — If a Class H element evaluation is required, all variables test data for subgroup 3 tests will be included in the data package.

EXAMPLE PART NUMBER
CR0805BX103K2P3

Add “CR” to the beginning of the standard Presidio part number. See Page 3 “HOW TO ORDER A STANDARD PART”

Visit Presidio’s website for additional technical information on these products.



SIZE	L inches (mm)	W inches (mm)	THICKNESS MAX. (T) inches (mm)	METALIZATION BAND (M.B.) inches (mm)	WVDC	DIELECTRIC		
						NPO	BX	X7R
0402	0.040 (1.02) ± 0.004 (0.10)	0.020 (0.51) ± 0.004 (0.10)	0.024 (0.61)	0.004 (0.10) min. band 0.015 (0.38) min. space	16 V	150 pF	2200 pF	4700 pF
					25 V	100 pF	1500 pF	3300 pF
					50 V	68 pF	1000 pF	2200 pF
					100 V	39 pF	470 pF	1200 pF
0403	0.040 (1.02) ± 0.010 (0.25)	0.030 (0.76) ± 0.010 (0.25)	0.030 (0.76)	0.004 (0.10) min. band 0.015 (0.38) min. space	16 V	270 pF	3900 pF	8200 pF
					25 V	180 pF	2700 pF	6800 pF
					50 V	120 pF	2200 pF	4700 pF
					100 V	68 pF	820 pF	2200 pF
0504	0.050 (1.27) ± 0.010 (0.25)	0.040 (1.02) ± 0.010 (0.25)	0.040 (1.02)	0.005 (0.13) min. band 0.015 (0.38) min. space	16 V	560 pF	8200 pF	0.022 μF
					25 V	470 pF	8200 pF	0.015 μF
					50 V	330 pF	4700 pF	0.012 μF
					100 V	180 pF	2200 pF	5600 pF
0603	0.063 (1.60) ± 0.006 (0.15)	0.032 (0.81) ± 0.006 (0.15)	0.035 (0.89)	0.005 (0.13) min. band 0.025 (0.64) min. space	16 V	330 pF	5600 pF	0.012 μF
					25 V	220 pF	4700 pF	0.010 μF
					50 V	180 pF	3300 pF	6800 pF
					100 V	100 pF	1200 pF	3300 pF
0805	0.080 (2.03) ± 0.010 (0.25)	0.050 (1.27) ± 0.010 (0.25)	0.050 (1.27)	0.020 (0.51) ± 0.010 (0.25)	16 V	1500 pF	0.027 μF	0.068 μF
					25 V	1200 pF	0.022 μF	0.047 μF
					50 V	820 pF	0.015 μF	0.033 μF
					100 V	390 pF	6800 pF	0.018 μF
1206	0.126 (3.20) ± 0.008 (0.20)	0.063 (1.60) ± 0.008 (0.20)	0.059 (1.50)	0.020 (0.51) ± 0.010 (0.25)	16 V	5600 pF	0.10 μF	0.22 μF
					25 V	3900 pF	0.082 μF	0.15 μF
					50 V	2700 pF	0.047 μF	0.10 μF
					100 V	1200 pF	0.022 μF	0.056 μF
1209	0.125 (3.18) ± 0.010 (0.25)	0.095 (2.41) ± 0.010 (0.25)	0.065 (1.65)	0.020 (0.51) ± 0.010 (0.25)	16 V	.010 μF	0.22 μF	0.47 μF
					25 V	8200 pF	0.18 μF	0.39 μF
					50 V	6800 pF	0.15 μF	0.33 μF
					100 V	3300 pF	0.056 μF	0.10 μF
1712	0.175 (4.45) ± 0.013 (0.33)	0.125 (3.18) ± 0.010 (0.25)	0.065 (1.65)	0.020 (0.51) ± 0.010 (0.25)	16 V	0.022 μF	0.47 μF	0.82 μF
					25 V	0.018 μF	0.33 μF	0.56 μF
					50 V	0.012 μF	0.22 μF	0.39 μF
					100 V	5600 pF	0.10 μF	0.18 μF
1725	0.175 (4.45) ± 0.013 (0.33)	0.250 (6.35) ± 0.018 (0.46)	0.065 (1.65)	0.020 (0.51) ± 0.010 (0.25)	16 V	0.047 μF	1.2 μF	1.8 μF
					25 V	0.039 μF	0.82 μF	1.2 μF
					50 V	0.027 μF	0.56 μF	1.0 μF
					100 V	0.012 μF	0.27 μF	0.39 μF
2225	0.220 (5.59) ± 0.015 (0.38)	0.250 (6.35) ± 0.018 (0.46)	0.080 (2.03)	0.020 (0.51) ± 0.010 (0.25)	16 V	0.056 μF	1.5 μF	2.7 μF
					25 V	0.056 μF	1.2 μF	1.8 μF
					50 V	0.039 μF	0.82 μF	1.5 μF
					100 V	0.018 μF	0.39 μF	0.68 μF

HOW TO ORDER

EXAMPLE: CR0805BX103K2P3

