

## COMMERCIAL CAPACITORS

Presidio provides high quality ceramic capacitors for a wide variety of commercial applications. Every component must pass the test criteria listed below.

### QUALITY ASSURANCE PROVISIONS

Every lot undergoes the following inspection and tests:

**a) Capacitance** — All parts are tested at 25°C and 1VACRMS in accordance with Method 305 of MIL-STD-202. Y5V and low voltage parts follow EIA guidelines.

**b) Dissipation Factor (DF)** — See following table:

Voltage Rating	NPO	BX/BR	X7R	Y5V
10	N/A	5.0%	7.0%	13%
16/25	.15%	3.5%	5.0%	13%
50	.15%	2.5%	3.5%	10%
> 50	.15%	2.5%	2.5%	10%

**c) Dielectric Withstanding Voltage (DWV)** — All parts are tested to EIA/MIL standards.

**d) 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.

**e) Visual** — Performed on pieces in accordance with Presidio internal workmanship criteria.

**f) Mechanical** — Level 1 AQL 1% in accordance with this catalog.

**g) Operating Temperature Range:** -55°C to +125°C

### EXAMPLE PART NUMBER

**0805BX103K2P3**

See Page 3

“HOW TO ORDER A STANDARD PART”

## HIGH RELIABILITY “HR” CAPACITORS

For applications where reliability, but not full military screening is required, Presidio recommends its high reliability “HR” capacitors. The “HR” code signifies use of the test program below, or the use of a customer Source Control Document (SCD) that includes voltage conditioning.

### QUALITY ASSURANCE PROVISIONS

Every lot undergoes the following inspection and tests:

**a) Voltage Conditioning** — All parts receive a voltage conditioning at 2X rated voltage and 125°C for a minimum of 8 hours. An accelerated voltage conditioning, following MIL-PRF-55681 guidelines, may be used at Presidio’s discretion.

**b) Capacitance** — All parts are tested at 25°C and 1VACRMS in accordance with Method 305 of MIL-STD-202.

**c) Dissipation Factor (DF)** — See following table:

Voltage Rating	NPO	BX/BR	X7R	Y5V
10	N/A	5.0%	7.0%	13%
16/25	.15%	3.5%	5.0%	13%
50	.15%	2.5%	3.5%	10%
> 50	.15%	2.5%	2.5%	10%

**d) 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.

**e) 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.

**f) Visual** — Performed on pieces in accordance with Presidio internal workmanship criteria.

**g) Mechanical** — Level 1 AQL 1% in accordance with this catalog.

**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.

**i) Operating Temperature Range:** -55°C to +125°C

### EXAMPLE PART NUMBER

**HR0805BX103K2P3**

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

### CERTIFICATE OF COMPLIANCE

A Certificate of Compliance will be sent with each shipment.

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



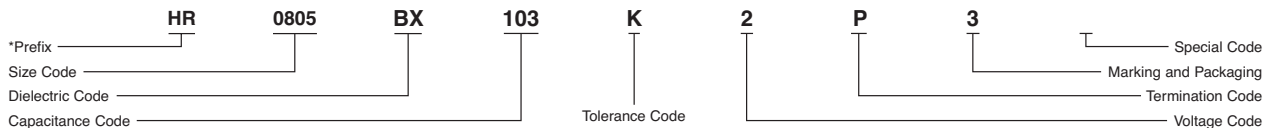
**COMMERCIAL AND HIGH RELIABILITY "HR" CAPACITORS**

**HR**

SIZE	L inches (mm)	W inches (mm)	THICKNESS MAX. (T) inches (mm)	METALIZATION BAND (M.B.) inches (mm)	WVDC	DIELECTRIC			
						NPO	BX/BR	X7R	Y5V
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	10 V	390 pF	6800 pF	0.012 µF	0.047 µF
					16 V	200 pF	3300 pF	6800 pF	0.027 µF
					25 V	120 pF	2200 pF	4700 pF	0.018 µF
					50 V	100 pF	1800 pF	3900 pF	0.012 µF
					100 V	39 pF	680 pF	1200 pF	5600 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	10 V	1200 pF	0.020 µF	0.047 µF	0.12 µF
					16 V	560 pF	0.012 µF	0.022 µF	0.068 µF
					25 V	390 pF	6800 pF	0.015 µF	0.047 µF
					50 V	330 pF	5600 pF	0.012 µF	0.033 µF
					100 V	68 pF	1000 pF	2200 pF	6800 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	10 V	2700 pF	0.068 µF	0.12 µF	0.39 µF
					16 V	1800 pF	0.039 µF	0.082 µF	0.22 µF
					25 V	1500 pF	0.027 µF	0.047 µF	0.12 µF
					50 V	1200 pF	0.020 µF	0.039 µF	0.082 µF
					100 V	180 pF	2700 pF	6800 pF	0.018 µF
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	10 V	2200 pF	0.039 µF	0.10 µF	0.22 µF
					16 V	1000 pF	0.020 µF	0.043 µF	0.12 µF
					25 V	680 pF	0.015 µF	0.027 µF	0.082 µF
					50 V	560 pF	0.010 µF	0.022 µF	0.056 µF
					100 V	100 pF	1800 pF	3300 pF	0.010 µF
0805	0.080 (2.03) ± 0.010 (0.25)	0.050 (1.27) ± 0.010 (0.25)	0.055 (1.40)	0.020 (0.51) ± 0.010 (0.25)	10 V	4700 pF	0.1 µF	0.22 µF	0.68 µF
					16 V	3300 pF	0.075 µF	0.15 µF	0.47 µF
					25 V	2700 pF	0.047 µF	0.10 µF	0.27 µF
					50 V	2200 pF	0.039 µF	0.10 µF	0.18 µF
					100 V	560 pF	8200 pF	0.022 µF	0.056 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)	10 V	0.012 µF	0.25 µF	0.56 µF	1.8 µF
					16 V	8200 pF	0.2 µF	0.39 µF	1.2 µF
					25 V	6800 pF	0.15 µF	0.27 µF	0.82 µF
					50 V	5600 pF	0.1 µF	0.22 µF	0.56 µF
					100 V	1500 pF	0.027 µF	0.068 µF	0.18 µF
					200 V	820 pF	0.012 µF	0.027 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)	10 V	0.018 µF	0.39 µF	0.82 µF	2.5 µF
					16 V	0.012 µF	0.27 µF	0.68 µF	1.8 µF
					25 V	0.010 µF	0.22 µF	0.47 µF	1.5 µF
					50 V	8200 pF	0.18 µF	0.39 µF	1.2 µF
					100 V	3900 pF	0.068 µF	0.15 µF	0.47 µF
					200 V	1800 pF	0.033 µF	0.068 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)	10 V	0.039 µF	0.82 µF	1.8 µF	5.6 µF
					16 V	0.027 µF	0.56 µF	1.2 µF	3.9 µF
					25 V	0.022 µF	0.47 µF	1.0 µF	2.7 µF
					50 V	0.015 µF	0.27 µF	0.68 µF	1.8 µF
					100 V	6800 pF	0.12 µF	0.27 µF	0.82 µF
					200 V	3300 pF	0.056 µF	0.12 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)	10 V	0.082 µF	2.0 µF	3.9 µF	12.0 µF
					16 V	0.068 µF	1.5 µF	3.3 µF	8.2 µF
					25 V	0.056 µF	1.2 µF	2.2 µF	6.8 µF
					50 V	0.039 µF	0.82 µF	1.8 µF	4.7 µF
					100 V	0.018 µF	0.33 µF	0.68 µF	2.0 µF
					200 V	8200 pF	0.12 µF	0.27 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)	10 V	0.10 µF	2.2 µF	4.7 µF	15.0 µF
					16 V	0.082 µF	1.8 µF	3.9 µF	12.0 µF
					25 V	0.068 µF	1.5 µF	3.3 µF	10.0 µF
					50 V	0.056 µF	1.0 µF	2.2 µF	6.8 µF
					100 V	0.027 µF	0.47 µF	1.0 µF	2.7 µF
					200V	0.012 µF	0.22 µF	0.47 µF	

**HOW TO ORDER**

EXAMPLE: HR0805BX103K2P3



\*No prefix required for commercial parts.



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