

RF/Microwave Capacitors

RF/Microwave C0G (NP0) Capacitors

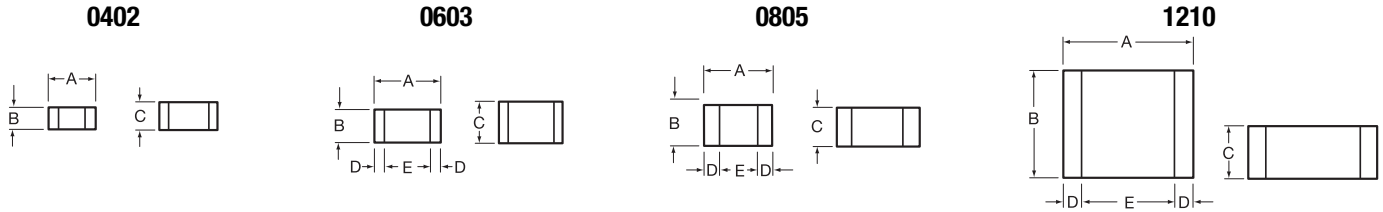
Ultra Low ESR "U" Series, C0G (NP0) Capacitors (RoHS)



GENERAL INFORMATION

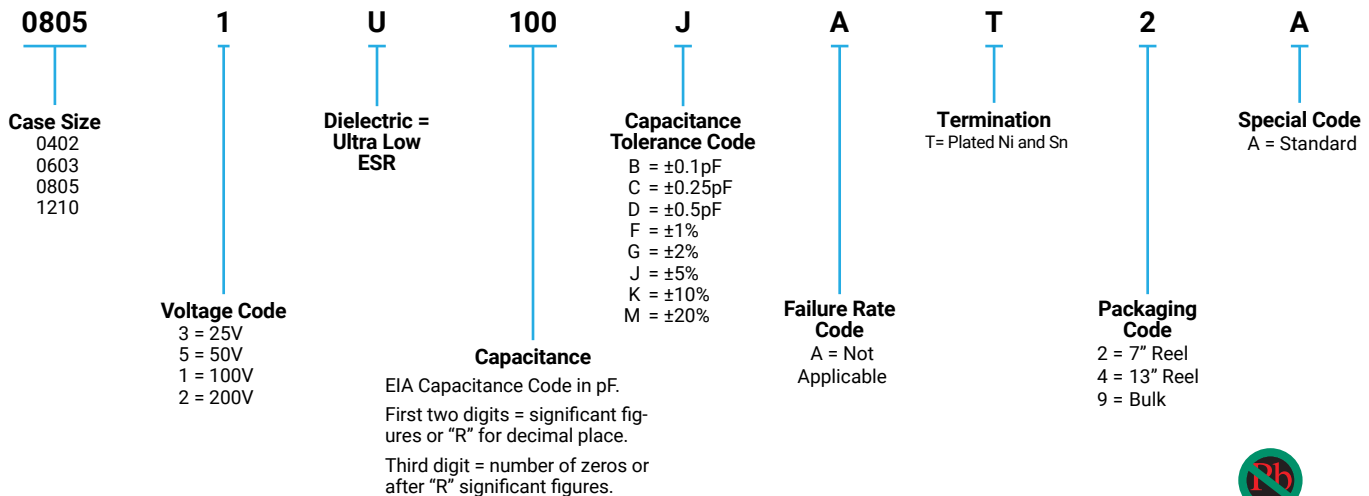
"U" Series capacitors are C0G (NP0) chip capacitors specially designed for "Ultra" low ESR for applications in the communications market. Max ESR and effective capacitance are met on each value producing lot to lot uniformity. Sizes available are EIA chip sizes 0603, 0805, and 1210.

DIMENSIONS: inches (millimeters)



| Size | A | B | C | D | E |
|------|-------------------------|-------------------------|--------------------|-------------------------------|------------------|
| 0402 | 0.039±0.004 (1.00±0.1) | 0.020±0.004 (0.50±0.1) | 0.024 (0.6) max | 0.010 ± 0.006 (0.25 ± 0.15) | 0.014 (0.36) min |
| 0603 | 0.060±0.010 (1.52±0.25) | 0.030±0.010 (0.76±0.25) | 0.036 (0.91) max | 0.010 ± 0.005 (0.25 ± 0.13) | 0.030 (0.76) min |
| 0805 | 0.079±0.008 (2.01±0.2) | 0.049±0.008 (1.25±0.2) | 0.045 (1.15mm) max | 0.020 ± 0.010 (0.51 ± 0.254) | 0.020 (0.51) min |
| 1210 | 0.126±0.008 (3.2±0.2) | 0.098±0.008 (2.49±0.2) | 0.055 (1.40mm) max | 0.025 ± 0.015 (0.635 ± 0.381) | 0.040 (1.02) min |

HOW TO ORDER



ELECTRICAL CHARACTERISTICS

Capacitance Values and Tolerances:

- Size 0402 - 0.2 pF to 22 pF @ 1 MHz
- Size 0603 - 1.0 pF to 100 pF @ 1 MHz
- Size 0805 - 1.6 pF to 160 pF @ 1 MHz
- Size 1210 - 2.4 pF to 1000 pF @ 1 MHz

Temperature Coefficient of Capacitance (TC):

0±30 ppm/°C (-55° to +125°C)

Insulation Resistance (IR):

- 10¹² Ω min. @ 25°C and rated WVDC
- 10¹¹ Ω min. @ 125°C and rated WVDC

Working Voltage (WVDC):

- | | |
|------|---------------------|
| Size | Working Voltage |
| 0402 | - 50, 25 WVDC |
| 0603 | - 200, 100, 50 WVDC |
| 0805 | - 200, 100 WVDC |
| 1210 | - 200, 100 WVDC |

Dielectric Working Voltage (DWV):

250% of rated WVDC

Equivalent Series Resistance Typical (ESR):

- 0402 - See Performance Curve, page 300
- 0603 - See Performance Curve, page 300
- 0805 - See Performance Curve, page 300
- 1210 - See Performance Curve, page 300

Marking

Laser marking EIA J marking standard (except 0603) (capacitance code and tolerance upon request).

MILITARY SPECIFICATIONS

Meets or exceeds the requirements of MIL-C-55681



RF/Microwave Capacitors

RF/Microwave C0G (NP0) Capacitors

Ultra Low ESR "U" Series, C0G (NP0) Capacitors (RoHS)

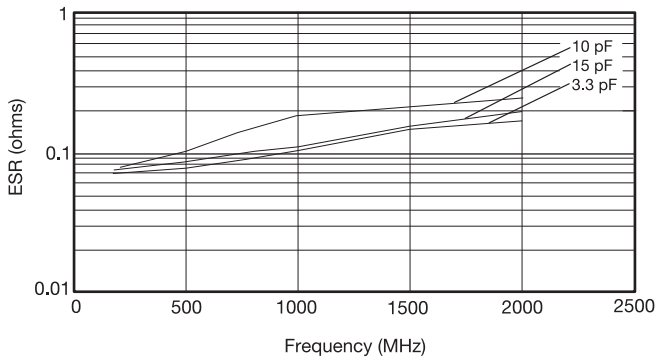


CAPACITANCE RANGE

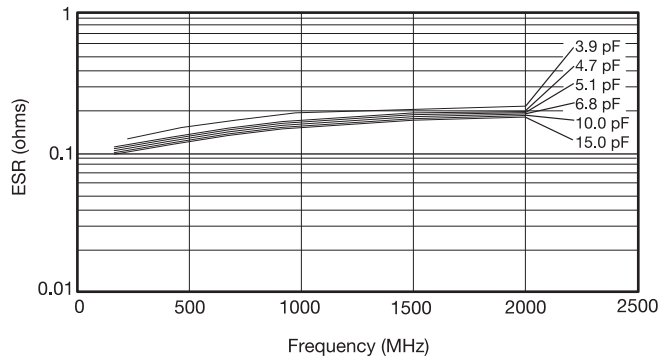
| Cap (pF) | Available Tolerance | Size | | | | Cap (pF) | Available Tolerance | Size | | | | Cap (pF) | Available Tolerance | Size | | | |
|----------|---------------------|------|------|------|------|----------|---------------------|------|------|------|------|----------|---------------------|------|------|------|------|
| | | 0402 | 0603 | 0805 | 1210 | | | 0402 | 0603 | 0805 | 1210 | | | 0402 | 0603 | 0805 | 1210 |
| 0.2 | B,C | 50V | N/A | N/A | N/A | 1.0 | B,C,D | 50V | 200V | 200V | 200V | 100 | FG,J,K,M | N/A | 100V | 200V | 200V |
| 0.3 | ↓ | ↓ | ↓ | ↓ | ↓ | 1.1 | ↓ | ↓ | ↓ | ↓ | ↓ | 110 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 0.4 | ↓ | ↓ | ↓ | ↓ | ↓ | 1.2 | ↓ | ↓ | ↓ | ↓ | ↓ | 120 | ↓ | ↓ | 50V | ↓ | ↓ |
| 0.5 | B,C | ↓ | ↓ | ↓ | ↓ | 1.3 | ↓ | ↓ | ↓ | ↓ | ↓ | 130 | ↓ | ↓ | N/A | ↓ | ↓ |
| 0.6 | B,C,D | ↓ | ↓ | ↓ | ↓ | 1.4 | ↓ | ↓ | ↓ | ↓ | ↓ | 140 | ↓ | ↓ | ↓ | 200V | ↓ |
| 0.7 | ↓ | ↓ | ↓ | ↓ | ↓ | 1.5 | ↓ | ↓ | ↓ | ↓ | ↓ | 150 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 0.8 | B,C,D | ↓ | ↓ | ↓ | ↓ | 1.6 | ↓ | ↓ | ↓ | ↓ | ↓ | 160 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 0.9 | ↓ | ↓ | ↓ | ↓ | ↓ | 1.7 | ↓ | ↓ | ↓ | ↓ | ↓ | 180 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 1.8 | ↓ | ↓ | ↓ | ↓ | ↓ | 200 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 1.9 | ↓ | ↓ | ↓ | ↓ | ↓ | 220 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 2.0 | ↓ | ↓ | ↓ | ↓ | ↓ | 270 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 2.1 | ↓ | ↓ | ↓ | ↓ | ↓ | 300 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 2.2 | ↓ | ↓ | ↓ | ↓ | ↓ | 330 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 2.4 | ↓ | ↓ | ↓ | ↓ | ↓ | 360 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 2.7 | ↓ | ↓ | ↓ | ↓ | ↓ | 390 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 3.0 | ↓ | ↓ | ↓ | ↓ | ↓ | 430 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 3.3 | ↓ | ↓ | ↓ | ↓ | ↓ | 470 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 3.6 | ↓ | ↓ | ↓ | ↓ | ↓ | 510 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 3.9 | ↓ | ↓ | ↓ | ↓ | ↓ | 560 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 4.3 | ↓ | ↓ | ↓ | ↓ | ↓ | 620 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 4.7 | ↓ | ↓ | ↓ | ↓ | ↓ | 680 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 5.1 | ↓ | ↓ | ↓ | ↓ | ↓ | 750 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 5.6 | B,C,D | ↓ | ↓ | ↓ | ↓ | 820 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 6.2 | ↓ | ↓ | ↓ | ↓ | ↓ | 910 | ↓ | ↓ | ↓ | ↓ | ↓ |
| | | | | | | 6.8 | B,C,J,K,M | ↓ | ↓ | ↓ | ↓ | 1000 | FG,J,K,M | ↓ | ↓ | ↓ | ↓ |
| | | | | | | | | | | | | | | | | | 200V |
| | | | | | | | | | | | | | | | | | 100V |

ULTRA LOW ESR, "U" SERIES

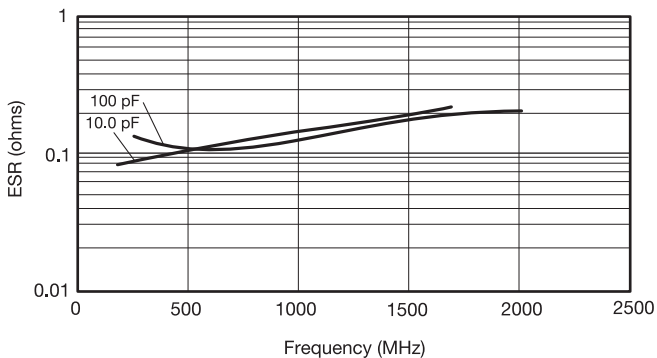
TYPICAL ESR vs. FREQUENCY
0402 "U" SERIES



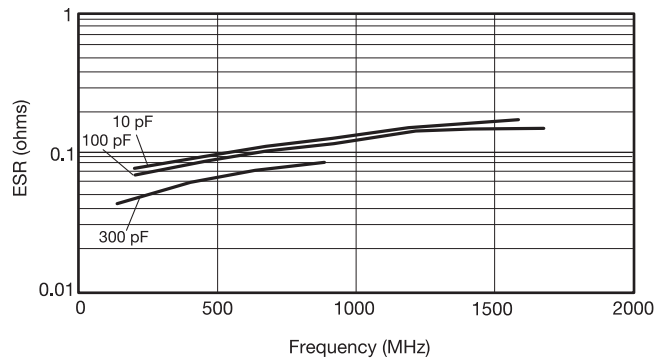
TYPICAL ESR vs. FREQUENCY
0603 "U" SERIES



TYPICAL ESR vs. FREQUENCY
0805 "U" SERIES



TYPICAL ESR vs. FREQUENCY
1210 "U" SERIES



ESR Measured on the Boonton 34A



The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

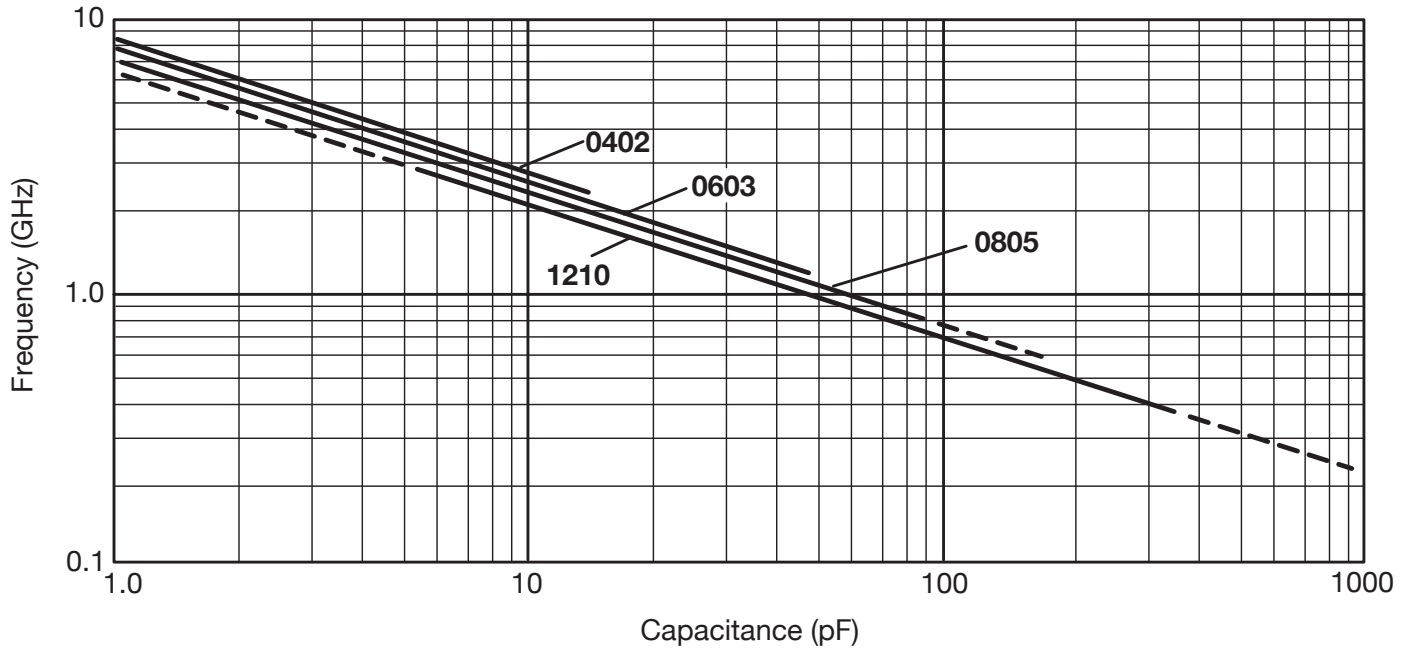
RF/Microwave Capacitors

RF/Microwave C0G (NP0) Capacitors

Ultra Low ESR "U" Series, C0G (NP0) Capacitors (RoHS)



TYPICAL SERIES RESONANT FREQUENCY "U" SERIES CHIP



RF/Microwave Capacitors

RF/Microwave COG (NP0) Capacitors

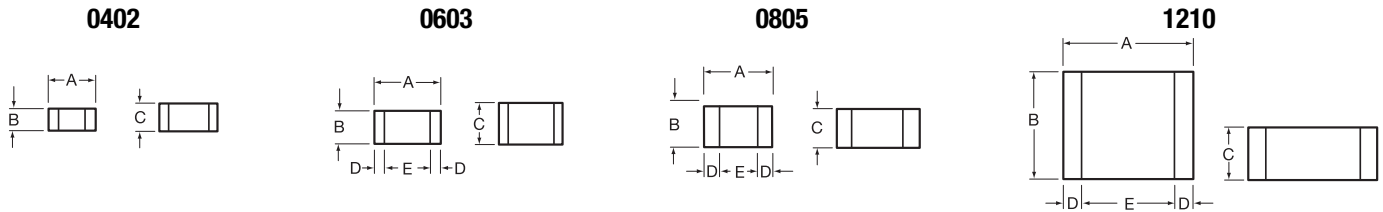
Ultra Low ESR "U" Series, COG (NP0) Capacitors (Sn/Pb)



GENERAL INFORMATION

"U" Series capacitors are COG (NP0) chip capacitors specially designed for "Ultra" low ESR for applications in the communications market. Max ESR and effective capacitance are met on each value producing lot to lot uniformity. Sizes available are EIA chip sizes 0603, 0805, and 1210.

DIMENSIONS: inches (millimeters)



| Size | A | B | C | D | E |
|------|-------------------------|-------------------------|--------------------|-----------------------------|------------------|
| 0402 | 0.039±0.004 (1.00±0.1) | 0.020±0.004 (0.50±0.1) | 0.024 (0.6) max | 0.010 ± 0.006 (0.25 ± 0.15) | 0.014 (0.36) min |
| 0603 | 0.060±0.010 (1.52±0.25) | 0.030±0.010 (0.76±0.25) | 0.036 (0.91) max | 0.010±0.005 (0.25±0.13) | 0.030 (0.76) min |
| 0805 | 0.079±0.008 (2.01±0.2) | 0.049±0.008 (1.25±0.2) | 0.045 (1.15mm) max | 0.020±0.010 (0.51±0.254) | 0.020 (0.51) min |
| 1210 | 0.126±0.008 (3.2±0.2) | 0.098±0.008 (2.49±0.2) | 0.055 (1.40mm) max | 0.025±0.015 (0.635±0.381) | 0.040 (1.02) min |

HOW TO ORDER

| | | | | | | | | |
|---|---|---|---|---|---|--|---|--|
| <p>LD05</p> <p>Case Size LD02 = 0402 LD03 = 0603 LD05 = 0805 LD10 = 1210</p> | <p>1</p> <p>Voltage Code 3 = 25V 5 = 50V 1 = 100V 2 = 200V</p> | <p>U</p> <p>Dielectric = Ultra Low ESR</p> | <p>100</p> <p>Capacitance EIA Capacitance Code in pF. First two digits = significant figures or "R" for decimal place. Third digit = number of zeros or after "R" significant figures.</p> | <p>J</p> <p>Capacitance Tolerance Code B = ±0.1pF C = ±0.25pF D = ±0.5pF F = ±1% G = ±2% J = ±5% K = ±10% M = ±20%</p> | <p>A</p> <p>Failure Rate Code A = Not Applicable</p> | <p>B</p> <p>Termination B = 5% min lead</p> | <p>2</p> <p>Packaging Code 2 = 7" Reel 4 = 13" Reel 9 = Bulk</p> | <p>A</p> <p>Special Code A = Standard</p> |
|---|---|---|---|---|---|--|---|--|

Not RoHS Compliant

ELECTRICAL CHARACTERISTICS

Capacitance Values and Tolerances:

Size 0402 - 0.2 pF to 22 pF @ 1 MHz
 Size 0603 - 1.0 pF to 100 pF @ 1 MHz
 Size 0805 - 1.6 pF to 160 pF @ 1 MHz
 Size 1210 - 2.4 pF to 1000 pF @ 1 MHz

Temperature Coefficient of Capacitance (TC):

0±30 ppm/°C (-55° to +125°C)

Insulation Resistance (IR):

10¹² Ω min. @ 25°C and rated WVDC
 10¹¹ Ω min. @ 125°C and rated WVDC

Working Voltage (WVDC):

| | |
|------|---------------------|
| Size | Working Voltage |
| 0402 | - 50, 25 WVDC |
| 0603 | - 200, 100, 50 WVDC |
| 0805 | - 200, 100 WVDC |
| 1210 | - 200, 100 WVDC |

Dielectric Working Voltage (DWV):

250% of rated WVDC

Equivalent Series Resistance Typical (ESR):

040 - See Performance Curve, page 306
 0603 - See Performance Curve, page 306
 0805 - See Performance Curve, page 306
 1210 - See Performance Curve, page 306

Marking:

Laser marking EIA J marking standard (except 0603) (capacitance code and tolerance upon request).

Military Specifications

Meets or exceeds the requirements of MIL-C-55681



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RF/Microwave Capacitors

RF/Microwave C0G (NP0) Capacitors

Ultra Low ESR "U" Series, C0G (NP0) Capacitors (Sn/Pb)



CAPACITANCE RANGE

| Cap (pF) | Available Tolerance | Size | | | |
|----------|---------------------|------|------|------|------|
| | | LD02 | LD03 | LD05 | LD10 |
| 0.2 | B,C | 50V | N/A | N/A | N/A |
| 0.3 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 0.4 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 0.5 | B,C | ↓ | ↓ | ↓ | ↓ |
| 0.6 | B,C,D | ↓ | ↓ | ↓ | ↓ |
| 0.7 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 0.8 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 0.9 | B,C,D | ↓ | ↓ | ↓ | ↓ |

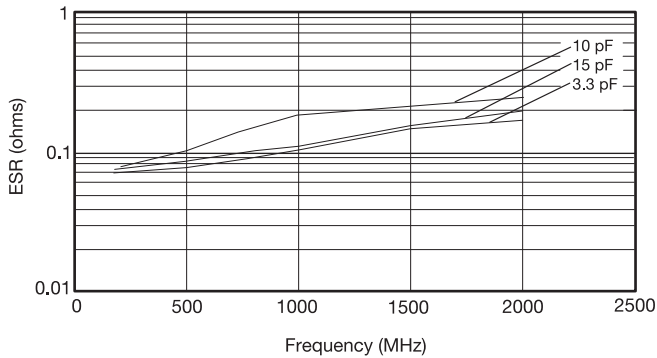
| Cap (pF) | Available Tolerance | Size | | | |
|----------|---------------------|------|------|------|------|
| | | LD02 | LD03 | LD05 | LD10 |
| 1.0 | B,C,D | 50V | 200V | 200V | 200V |
| 1.1 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 1.2 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 1.3 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 1.4 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 1.5 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 1.6 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 1.7 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 1.8 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 1.9 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 2.0 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 2.1 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 2.2 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 2.4 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 2.7 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 3.0 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 3.3 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 3.6 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 3.9 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 4.3 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 4.7 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 5.1 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 5.6 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 6.2 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 6.8 | B,C,D | ↓ | ↓ | ↓ | ↓ |
| | B,C,J,K,M | ↓ | ↓ | ↓ | ↓ |

| Cap (pF) | Available Tolerance | Size | | | |
|----------|---------------------|------|------|------|------|
| | | LD02 | LD03 | LD05 | LD10 |
| 7.5 | B,C,J,K,M | 50V | 200V | 200V | 200V |
| 8.2 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 9.1 | B,C,J,K,M | ↓ | ↓ | ↓ | ↓ |
| 10 | F,G,J,K,M | ↓ | ↓ | ↓ | ↓ |
| 11 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 12 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 13 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 15 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 18 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 20 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 22 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 24 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 27 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 30 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 33 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 36 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 39 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 43 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 47 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 51 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 56 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 68 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 75 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 82 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 91 | ↓ | ↓ | ↓ | ↓ | ↓ |

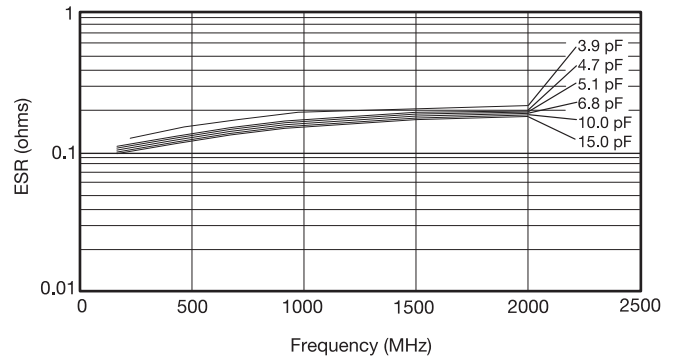
| Cap (pF) | Available Tolerance | Size | | | |
|----------|---------------------|------|------|------|------|
| | | LD02 | LD03 | LD05 | LD10 |
| 100 | F,G,J,K,M | N/A | 100V | 200V | 200V |
| 110 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 120 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 130 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 140 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 150 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 160 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 180 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 200 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 220 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 270 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 300 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 330 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 360 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 390 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 430 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 470 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 510 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 560 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 620 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 680 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 750 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 820 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 910 | ↓ | ↓ | ↓ | ↓ | ↓ |
| 1000 | F,G,J,K,M | ↓ | ↓ | ↓ | ↓ |

ULTRA LOW ESR, "U" SERIES

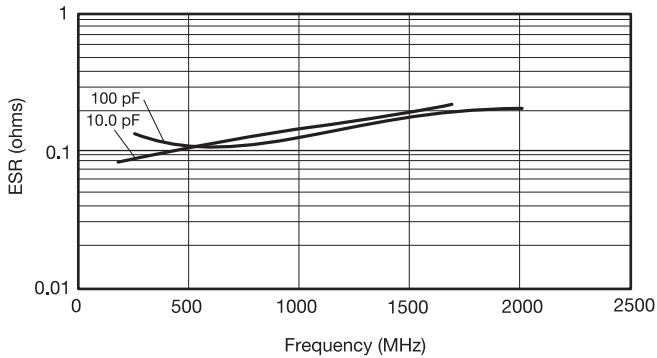
TYPICAL ESR vs. FREQUENCY
0402 "U" SERIES



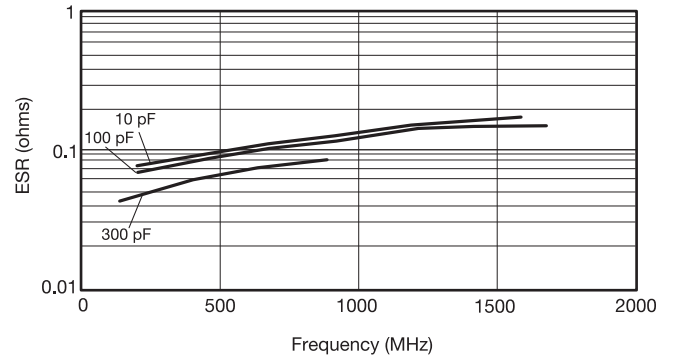
TYPICAL ESR vs. FREQUENCY
0603 "U" SERIES



TYPICAL ESR vs. FREQUENCY
0805 "U" SERIES



TYPICAL ESR vs. FREQUENCY
1210 "U" SERIES



ESR Measured on the Boonton 34A

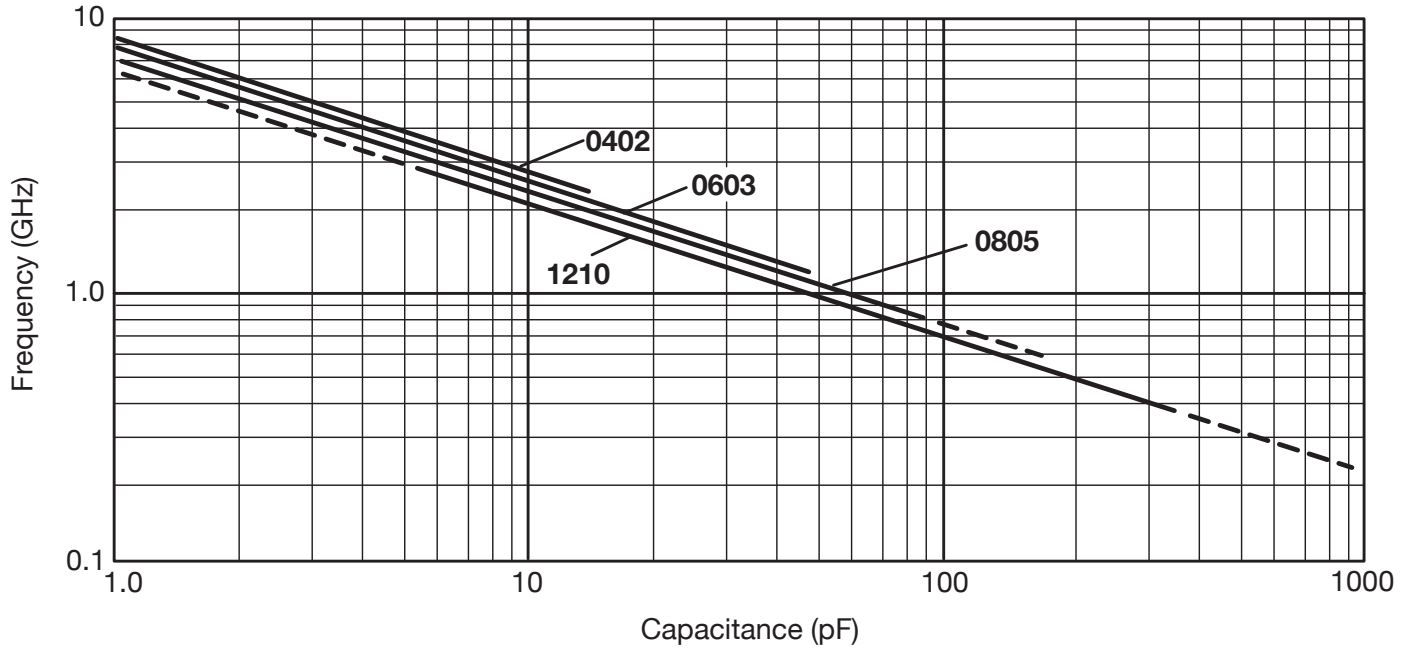
RF/Microwave Capacitors

RF/Microwave C0G (NP0) Capacitors

Ultra Low ESR "U" Series, C0G (NP0) Capacitors (Sn/Pb)



TYPICAL SERIES RESONANT FREQUENCY "U" SERIES CHIP



RF/Microwave Capacitors

RF/Microwave C0G (NP0) Capacitors

Ultra Low ESR "U" Series, C0G (NP0) Capacitors (RoHS)

Automotive, AEC Q200 Qualified



GENERAL INFORMATION

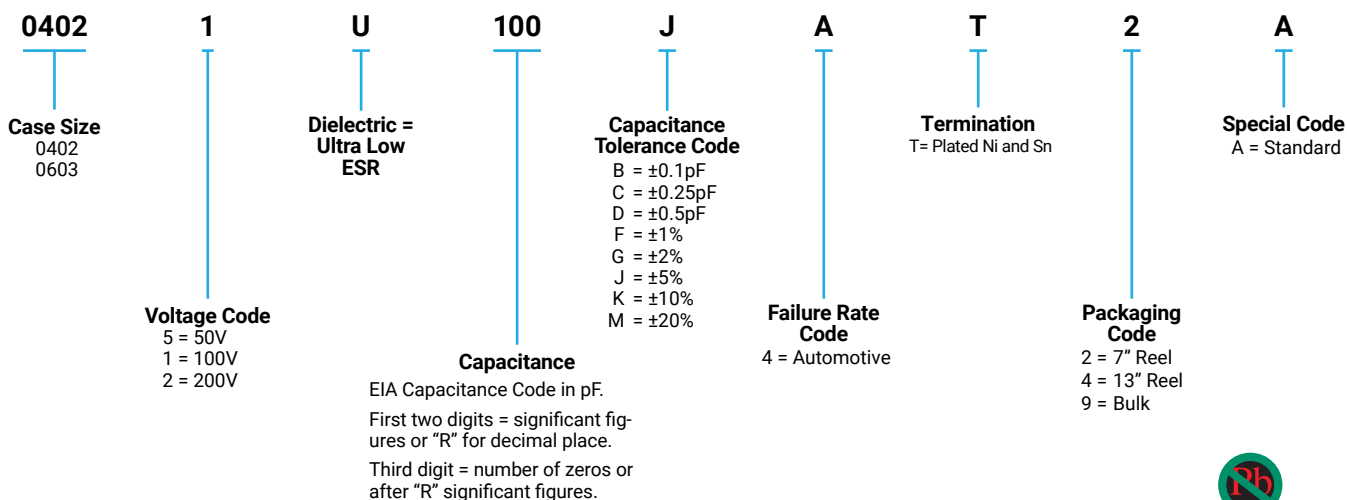
Automotive "U" Series capacitors are C0G (NP0) chip capacitors specially designed for "Ultra" low ESR for applications in the automotive market. Max ESR and effective capacitance are met on each value producing lot to lot uniformity. Sizes available are EIA chip sizes 0402 and 0603.

DIMENSIONS: inches (millimeters)



| inches (mm) | | | | | |
|-------------|----------------------------|----------------------------|---------------------|----------------------------|---------------------|
| Size | A | B | C | D | E |
| 0402 | 0.039±0.004 (1.00±0.1) | 0.020±0.004 (0.50±0.1) | 0.024 max (0.6) | N/A | N/A |
| 0603 | 0.060±0.010 (1.52±0.25) | 0.030±0.010 (0.76±0.25) | 0.036 max (0.91) | 0.010±0.005 (0.25±0.13) | 0.030 min (0.76) |

HOW TO ORDER



ELECTRICAL CHARACTERISTICS

Capacitance Values and Tolerances:

Size 0402 - 0.2 pF to 22 pF @ 1 MHz
 Size 0603 - 1.0 pF to 100 pF @ 1 MHz

Temperature Coefficient of Capacitance (TC):

0±30 ppm/°C (-55° to +125°C)

Insulation Resistance (IR):

10¹² Ω min. @ 25°C and rated WVDC
 10¹¹ Ω min. @ 125°C and rated WVDC

Working Voltage (WVDC):

| | |
|------|---------------------|
| Size | Working Voltage |
| 0402 | - 100, 50, 25 WVDC |
| 0603 | - 200, 100, 50 WVDC |

Dielectric Working Voltage (DWV):

250% of rated WVDC

Equivalent Series Resistance Typical (ESR):

0402 - See Performance Curve, page 303
 0603 - See Performance Curve, page 303

Automotive Specifications

Meets or exceeds the requirements of AEC Q200



LEAD-FREE
LEAD-FREE COMPATIBLE
COMPONENT



RoHS
COMPLIANT

RF/Microwave Capacitors

RF/Microwave C0G (NP0) Capacitors

Ultra Low ESR "U" Series, C0G (NP0) Capacitors (RoHS)

Automotive, AEC Q200 Qualified



CAPACITANCE RANGE

| Cap (pF) | Available Tolerance | Size 0402 | Size 0603 |
|----------|---------------------|-----------|-----------|
| 0.2 | B,C | 50V | N/A |
| 0.3 | | | |
| 0.4 | | | |
| 0.5 | B,C | | |
| 0.6 | B,C,D | | |
| 0.7 | | | |
| 0.8 | | | |
| 0.9 | B,C,D | | |

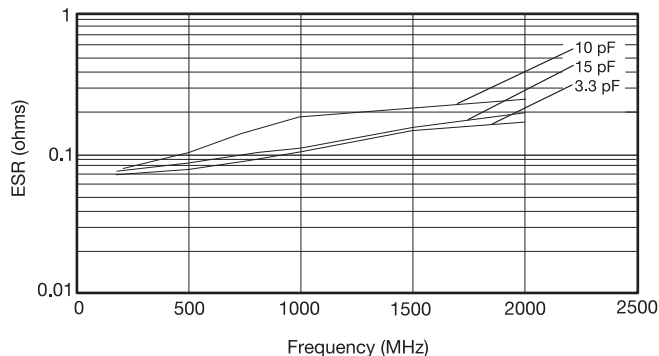
| Cap (pF) | Available Tolerance | Size 0402 | Size 0603 |
|----------|---------------------|-----------|-----------|
| 1.0 | B,C,D | 50V | 200V |
| 1.1 | | | |
| 1.2 | | | |
| 1.3 | | | |
| 1.4 | | | |
| 1.5 | | | |
| 1.6 | | | |
| 1.7 | | | |
| 1.8 | | | |
| 1.9 | | | |
| 2.0 | | | |
| 2.1 | | | |
| 2.2 | | | |
| 2.4 | | | |
| 2.7 | | | |
| 3.0 | | | |
| 3.3 | | | |
| 3.6 | | | |
| 3.9 | | | |
| 4.3 | | | |
| 4.7 | | | |
| 5.1 | | | |
| 5.6 | | | |
| 6.2 | B,C,D | | |
| 6.8 | B,C,J,K,M | | |

| Cap (pF) | Available Tolerance | Size 0402 | Size 0603 |
|----------|---------------------|-----------|-----------|
| 7.5 | B,C,J,K,M | 50V | 200V |
| 8.2 | | | |
| 9.1 | B,C,J,K,M | | |
| 10 | FG,J,K,M | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 15 | | | |
| 18 | | | |
| 20 | | | 200V |
| 22 | | | 100V |
| 24 | | | |
| 27 | | | |
| 30 | | 50V | |
| 33 | | N/A | |
| 36 | | | |
| 39 | | | |
| 43 | | | |
| 47 | | | |
| 51 | | | |
| 56 | | | |
| 68 | | | |
| 75 | | | |
| 82 | | | |
| 91 | | | |

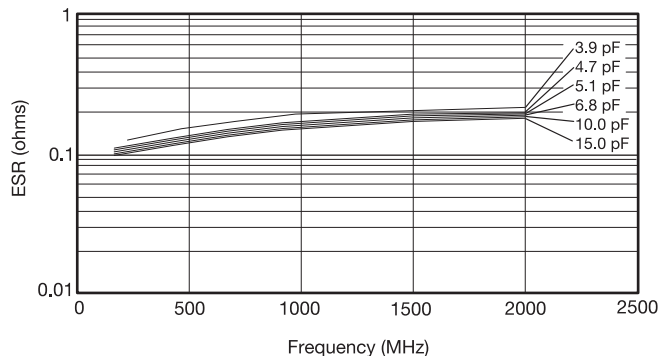
| Cap (pF) | Available Tolerance | Size 0402 | Size 0603 |
|----------|---------------------|-----------|-----------|
| 100 | FG,J,K,M | N/A | 100V |
| 110 | | | 50V |
| 120 | | | 50V |
| 130 | | | N/A |
| 140 | | | |
| 150 | | | |
| 160 | | | |
| 180 | | | |
| 200 | | | |
| 220 | | | |
| 270 | | | |
| 300 | | | |
| 330 | | | |
| 360 | | | |
| 390 | | | |
| 430 | | | |
| 470 | | | |
| 510 | | | |
| 560 | | | |
| 620 | | | |
| 680 | | | |
| 750 | | | |
| 820 | | | |
| 910 | | | |
| 1000 | FG,J,K,M | | |

ULTRA LOW ESR, "U" SERIES

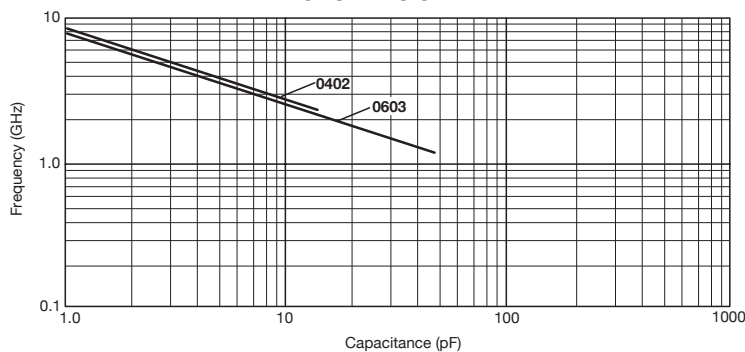
TYPICAL ESR vs. FREQUENCY
0402 "U" SERIES



TYPICAL ESR vs. FREQUENCY
0603 "U" SERIES



TYPICAL
SERIES RESONANT FREQUENCY
"U" SERIES CHIP



The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

0402

| Kit 5000 UZ | | | |
|---------------|--------------------------|---------------|--------------------------|
| Cap. Value PF | Tolerance | Cap. Value pF | Tolerance |
| 0.5 | B ($\pm 0.1\text{pF}$) | 4.7 | B ($\pm 0.1\text{pF}$) |
| 1.0 | | 5.6 | |
| 1.5 | | 6.8 | |
| 1.8 | | 8.2 | |
| 2.2 | | 10.0 | J ($\pm 5\%$) |
| 2.4 | | 12.0 | |
| 3.0 | | 15.0 | |
| 3.6 | | | |

***25 each of 15 values

0603

| Kit 4000 UZ | | | |
|---------------|--------------------------|---------------|--------------------------|
| Cap. Value PF | Tolerance | Cap. Value pF | Tolerance |
| 1.0 | B ($\pm 0.1\text{pF}$) | 6.8 | B ($\pm 0.1\text{pF}$) |
| 1.2 | | 7.5 | |
| 1.5 | | 8.2 | |
| 1.8 | | 10.0 | J ($\pm 5\%$) |
| 2.0 | | 12.0 | |
| 2.4 | | 15.0 | |
| 2.7 | | 18.0 | |
| 3.0 | | 22.0 | |
| 3.3 | | 27.0 | |
| 3.9 | | 33.0 | |
| 4.7 | | 39.0 | |
| 5.6 | | 47.0 | |

***25 each of 24 values

0805

| Kit 3000 UZ | | | | |
|---------------|--------------------------|-----------------|-----------------|-------|
| Cap. Value PF | Tolerance | Cap. Value pF | Tolerance | |
| 1.0 | B ($\pm 0.1\text{pF}$) | 15.0 | J ($\pm 5\%$) | |
| 1.5 | | 18.0 | | |
| 2.2 | | 22.0 | | |
| 2.4 | | 24.0 | | |
| 2.7 | | 27.0 | | |
| 3.0 | | 33.0 | | |
| 3.3 | | 36.0 | | |
| 3.9 | | 39.0 | | |
| 4.7 | | 47.0 | | |
| 5.6 | | 56.0 | | |
| 7.5 | | 68.0 | | |
| 8.2 | | 82.0 | | |
| 10.0 | | J ($\pm 5\%$) | | 100.0 |
| 12.0 | | | | 130.0 |

***25 each of 30 values

1210

| Kit 3500 UZ | | | | |
|---------------|--------------------------|-----------------|-----------------|-------|
| Cap. Value PF | Tolerance | Cap. Value pF | Tolerance | |
| 2.2 | B ($\pm 0.1\text{pF}$) | 36.0 | J ($\pm 5\%$) | |
| 2.7 | | 39.0 | | |
| 4.7 | | 47.0 | | |
| 5.1 | | 51.0 | | |
| 6.8 | | 56.0 | | |
| 8.2 | | 68.0 | | |
| 9.1 | | 82.0 | | |
| 10.0 | | J ($\pm 5\%$) | | 100.0 |
| 13.0 | | | | 120.0 |
| 15.0 | 130.0 | | | |
| 18.0 | 240.0 | | | |
| 20.0 | 300.0 | | | |
| 24.0 | 390.0 | | | |
| 27.0 | 470.0 | | | |
| 30.0 | 680.0 | | | |

***25 each of 30 values