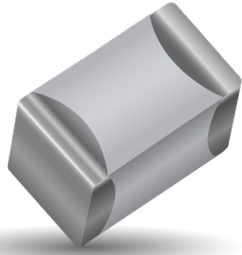


RF/Microwave Capacitors

RF/Microwave Multilayer Capacitors (MLC)

SQ Series Ultra Low ESR MLC



FEATURES

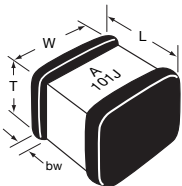
- Low ESR
- High Q
- High Self Resonance
- Capacitance Range 0.1 pF to 5100pF
- 175°C Capability SQCB (Standard voltages only)

APPLICATIONS

- RF Power Amplifiers
- Low Noise Amplifiers
- Filter Networks
- MRI Systems

HOW TO ORDER

| | | | | | | | | |
|------------------|------------------------|---|--|--|---|--------------------------|---|--|
| SQ | CA | 7 | M | 100 | J | A | T | 1A |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| AVX Style | Case Size | Voltage Code | Temperature Coefficient Code | Capacitance | Capacitance Tolerance Code | Failure Rate Code | Termination Style Code | Packaging Code |
| | CA = 0605 CB = 1210 | 5 = 50V 1 = 100V E = 150V 2 = 200V V = 250V 9 = 300V 7 = 500V C = 600V A = 1000V S = 1500V | M = +90±20ppm/°C A = 0±30ppm/°C C = 15% ("J" Termination only) | 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. | A = ±.05 pF B = ±.1 pF C = ±.25 pF D = ±.5 pF F = ±1% G = ±2% J = ±5% K = ±10% M = ±20% | A = Not Applicable | J=Nickel Barrier Sn/Pb (60/40) **T=100% Tin **C=Non-Magnetic Barrier/Tin | ME = 7" Reel Marked (0605, 1210 & 0709 only) 2A = 7" Unmarked (0402, 0603, & 0805 only) * Vertical T&R available |
| | | | | | | | **RoHS compliant | |



MECHANICAL DIMENSIONS: inches (millimeters)

| Case | Length (L) | Width (W) | Thickness (T) | Band Width (bw) |
|-------|--|--------------------------|--------------------------|--|
| SQCA* | .055 + .015 - .010 (1.40 + .381 - .254) | .055±.015 (1.40±.381) | .020/.057 (.508/1.45) | .010 + .010 - .005 (.254 + .254 - .127) |
| SQCB* | .110 + .020 - .010 (2.79 + .508 - .254) | .110±.010 (2.79±.254) | .030/.102 (.762/2.59) | .015±.010 (.381±.254) |

TAPE & REEL: All tape and reel specifications are in compliance with EIA RS481 (equivalent to IEC 286 part 3).

—8mm carrier

—7" reel:

WAFFLE PACK

SQCA 100 pcs

SQCB 100 pcs



For RoHS compliant products,
please select correct termination style.

Also available in:

Not RoHS Compliant

RF/Microwave Capacitors

RF/Microwave Multilayer Capacitors (MLC)

SQ Series Ultra Low ESR MLC



ELECTRICAL SPECIFICATIONS

| Dielectric | | M & A | C |
|---------------------------------------|-------------------------|--|---|
| Temperature Coefficient (TCC) | | (M) $+90 \pm 20$ PPM/ $^{\circ}$ C (-55° C to $+125^{\circ}$ C) (M) $+90 \pm 30$ PPM/ $^{\circ}$ C ($+125^{\circ}$ C to $+175^{\circ}$ C)* (A) 0 ± 30 PPM/ $^{\circ}$ C | $\pm 15\%$ (-55° C to 125° C) |
| Capacitance Range | | (M) 0.1 pF to 1000 pF (A) 0.1 pF to 5100 pF | 0.001 μ F to 0.1 μ F |
| Operating Temperature | | A Case: -55° C to $+125^{\circ}$ C* B Case (M Dielectric): 0.1 pF to 330 pF: from -55° C to $+175^{\circ}$ C 360 pF to 5100 pF: from -55° C to $+125^{\circ}$ C B Case (A Dielectric): 0.1 pF to 200 pF: from -55° C to $+175^{\circ}$ C 220 pF to 5100 pF: from -55° C to $+125^{\circ}$ C | -55° C to $+125^{\circ}$ C |
| Quality Factor (Q) | M Dielectric A & B Case | Greater than 10,000 at 1 MHz | 2.5% @ 1kHz |
| | A Dielectric B Case | Greater than 10,000 at 1 MHz Greater than 2,000 at 1 MHz Greater than 2,000 at 1 KHz | 0.1 - 200 pF 220 - 1000 pF 1100 - 5100 pF |
| | A Dielectric A Case | Greater than 10,000 at 1 MHz Greater than 2,000 at 1 MHz | 0.1 - 100 pF 110 - 1000 pF |
| Insulation Resistance (IR) | | 0.1 pF to 1000 pF 105 Megohms min. @ 25° C at rated WVDC 104 Megohms min. @ 125° C at rated WVDC | 10^4 Megohms min. @ 25° C at rated WVDC 10^3 Megohms min. @ 125° C at rated WVDC |
| Working Voltage (WVDC) | | See Capacitance Values table | See Capacitance Values table |
| Dielectric Withstanding Voltage (DWV) | | 250% of rated WVDC for 5 secs | 250% of rated WVDC for 5 secs |
| Aging Effects | | None | <3% per decade hour |
| Piezoelectric Effects | | None | None |
| Capacitance Drift | | \pm (0.02% or 0.02 pF), whichever is greater | Not Applicable |
| Piezoelectric Effects | | None | |
| Capacitance Drift | | \pm (0.02% or 0.02 pF), whichever is greater | |

ENVIRONMENTAL CHARACTERISTICS

AVX SQ will meet and exceed the requirements of EIA-198, MIL-PRF-55681 and MIL-PRF-123

| | |
|---------------------------|---|
| Thermal Shock | Mil-STD-202, Method 107, Condition A |
| Moisture Resistance | Mil-STD-202, Method 106 |
| Low Voltage Humidity | Mil-STD-202, Method 103, condition A, with 1.5 VDC applied while subjected to an environment of 85° C with 85% relative humidity for 240 hours |
| Life Test | Mil-STD-202, Method 108, for 2000 hours at 125° C 200% WVDC |
| Shock | Mil-STD-202, Method 213, Condition J |
| Vibration | Mil-STD-202, Method 204, Condition B |
| Immersion | Mil-STD-202, Method 104, Condition B |
| Salt Spray | Mil-STD-202, Method 101, Condition B |
| Solderability | Mil-STD-202, Method 208 |
| Terminal Strength | Mil-STD-202, Method 211 |
| Temperature Cycling | Mil-STD-202, Method 102, Condition C |
| Barometric Pressure | Mil-STD-202, Method 105, Condition B |
| Resistance to Solder Heat | Mil-STD-202, Method 210, Condition C |

RF/Microwave Capacitors

RF/Microwave Multilayer Capacitors (MLC)

SQ Series Ultra Low ESR MLC



Case Size A

TABLE I: TC: M (+90±20PPM/°C)

| Cap. pF | Cap. Tol. | WVDC* | | Cap. pF | Cap. Tol. | WVDC* | | Cap. pF | Cap. Tol. | WVDC* | | Cap. pF | Cap. Tol. | WVDC* | |
|---------|-----------|-------|-----|---------|-----------|-------|-----|---------|------------|-------|-----|---------|------------|-------|-----|
| | | STD | HV | | | STD | HV | | | STD | HV | | | STD | HV |
| 0.1 | B | 150 | 250 | 1.7 | B, C, D | 150 | 250 | 6.8 | B, C, J, K | 150 | 250 | 33 | F, G, J, K | 150 | 250 |
| 0.2 | B | 150 | 250 | 1.8 | B, C, D | 150 | 250 | 7.5 | B, C, J, K | 150 | 250 | 36 | F, G, J, K | 150 | 250 |
| 0.3 | B, C | 150 | 250 | 1.9 | B, C, D | 150 | 250 | 8.2 | B, C, J, K | 150 | 250 | 39 | F, G, J, K | 150 | 250 |
| 0.4 | B, C | 150 | 250 | 2.0 | B, C, D | 150 | 250 | 9.1 | B, C, J, K | 150 | 250 | 43 | F, G, J, K | 150 | 250 |
| 0.5 | B, C, D | 150 | 250 | 2.2 | B, C, D | 150 | 250 | 10 | F, G, J, K | 150 | 250 | 47 | F, G, J, K | 150 | 250 |
| 0.6 | B, C, D | 150 | 250 | 2.4 | B, C, D | 150 | 250 | 11 | F, G, J, K | 150 | 250 | 51 | F, G, J, K | 150 | 250 |
| 0.7 | B, C, D | 150 | 250 | 2.7 | B, C, D | 150 | 250 | 12 | F, G, J, K | 150 | 250 | 56 | F, G, J, K | 150 | 250 |
| 0.8 | B, C, D | 150 | 250 | 3.0 | B, C, D | 150 | 250 | 13 | F, G, J, K | 150 | 250 | 62 | F, G, J, K | 150 | 200 |
| 0.9 | B, C, D | 150 | 250 | 3.3 | B, C, D | 150 | 250 | 15 | F, G, J, K | 150 | 250 | 68 | F, G, J, K | 150 | 200 |
| 1.0 | B, C, D | 150 | 250 | 3.6 | B, C, D | 150 | 250 | 16 | F, G, J, K | 150 | 250 | 75 | F, G, J, K | 150 | 200 |
| 1.1 | B, C, D | 150 | 250 | 3.9 | B, C, D | 150 | 250 | 18 | F, G, J, K | 150 | 250 | 82 | F, G, J, K | 150 | 200 |
| 1.2 | B, C, D | 150 | 250 | 4.3 | B, C, D | 150 | 250 | 20 | F, G, J, K | 150 | 250 | 91 | F, G, J, K | 150 | 200 |
| 1.3 | B, C, D | 150 | 250 | 4.7 | B, C, D | 150 | 250 | 22 | F, G, J, K | 150 | 250 | 100 | F, G, J, K | 150 | 200 |
| 1.4 | B, C, D | 150 | 250 | 5.1 | B, C, D | 150 | 250 | 24 | F, G, J, K | 150 | 250 | | | | |
| 1.5 | B, C, D | 150 | 250 | 5.6 | B, C, D | 150 | 250 | 27 | F, G, J, K | 150 | 250 | | | | |
| 1.6 | B, C, D | 150 | 250 | 6.2 | B, C, D | 150 | 250 | 30 | F, G, J, K | 150 | 250 | | | | |

TABLE II: TC: A (0±30PPM/°C)

| Cap. pF | Cap. Tol. | WVDC* | | Cap. pF | Cap. Tol. | WVDC* | | Cap. pF | Cap. Tol. | WVDC* | | Cap. pF | Cap. Tol. | WVDC* | |
|---------|-----------|-------|-----|---------|------------|-------|-----|---------|------------|-------|-----|---------|------------|-------|----|
| | | STD | HV | | | STD | HV | | | STD | HV | | | STD | HV |
| 0.1 | B | 150 | 250 | 2.7 | B, C, D | 150 | 250 | 22 | F, G, J, K | 150 | 250 | 180 | F, G, J, K | 150 | - |
| 0.2 | B | 150 | 250 | 3.0 | B, C, D | 150 | 250 | 24 | F, G, J, K | 150 | 250 | 200 | F, G, J, K | 150 | - |
| 0.3 | B, C | 150 | 250 | 3.3 | B, C, D | 150 | 250 | 27 | F, G, J, K | 150 | 250 | 220 | F, G, J, K | 150 | - |
| 0.4 | B, C | 150 | 250 | 3.6 | B, C, D | 150 | 250 | 30 | F, G, J, K | 150 | 250 | 240 | F, G, J, K | 150 | - |
| 0.5 | B, C, D | 150 | 250 | 3.9 | B, C, D | 150 | 250 | 33 | F, G, J, K | 150 | 250 | 270 | F, G, J, K | 150 | - |
| 0.6 | B, C, D | 150 | 250 | 4.3 | B, C, D | 150 | 250 | 36 | F, G, J, K | 150 | 250 | 300 | F, G, J, K | 150 | - |
| 0.7 | B, C, D | 150 | 250 | 4.7 | B, C, D | 150 | 250 | 39 | F, G, J, K | 150 | 250 | 330 | F, G, J, K | 150 | - |
| 0.8 | B, C, D | 150 | 250 | 5.1 | B, C, D | 150 | 250 | 43 | F, G, J, K | 150 | 250 | 360 | F, G, J, K | 150 | - |
| 0.9 | B, C, D | 150 | 250 | 5.6 | B, C, D | 150 | 250 | 47 | F, G, J, K | 150 | 250 | 390 | F, G, J, K | 150 | - |
| 1.0 | B, C, D | 150 | 250 | 6.2 | B, C, D | 150 | 250 | 51 | F, G, J, K | 150 | 250 | 430 | F, G, J, K | 150 | - |
| 1.1 | B, C, D | 150 | 250 | 6.8 | B, C, J, K | 150 | 250 | 56 | F, G, J, K | 150 | 250 | 470 | F, G, J, K | 150 | - |
| 1.2 | B, C, D | 150 | 250 | 7.5 | B, C, J, K | 150 | 250 | 62 | F, G, J, K | 150 | 200 | 510 | F, G, J, K | 150 | - |
| 1.3 | B, C, D | 150 | 250 | 8.2 | B, C, J, K | 150 | 250 | 68 | F, G, J, K | 150 | 200 | 560 | F, G, J, K | 150 | - |
| 1.4 | B, C, D | 150 | 250 | 9.1 | B, C, J, K | 150 | 250 | 75 | F, G, J, K | 150 | 200 | 620 | F, G, J, K | 150 | - |
| 1.5 | B, C, D | 150 | 250 | 10 | F, G, J, K | 150 | 250 | 82 | F, G, J, K | 150 | 200 | 680 | F, G, J, K | 50 | - |
| 1.6 | B, C, D | 150 | 250 | 11 | F, G, J, K | 150 | 250 | 91 | F, G, J, K | 150 | 200 | 750 | F, G, J, K | 50 | - |
| 1.7 | B, C, D | 150 | 250 | 12 | F, G, J, K | 150 | 250 | 100 | F, G, J, K | 150 | - | 820 | F, G, J, K | 50 | - |
| 1.8 | B, C, D | 150 | 250 | 13 | F, G, J, K | 150 | 250 | 110 | F, G, J, K | 150 | - | 910 | F, G, J, K | 50 | - |
| 1.9 | B, C, D | 150 | 250 | 15 | F, G, J, K | 150 | 250 | 120 | F, G, J, K | 150 | - | 1000 | F, G, J, K | 50 | - |
| 2.0 | B, C, D | 150 | 250 | 16 | F, G, J, K | 150 | 250 | 130 | F, G, J, K | 150 | - | | | | |
| 2.2 | B, C, D | 150 | 250 | 18 | F, G, J, K | 150 | 250 | 150 | F, G, J, K | 150 | - | | | | |
| 2.4 | B, C, D | 150 | 250 | 20 | F, G, J, K | 150 | 250 | 160 | F, G, J, K | 150 | - | | | | |

TABLE III: TC: C (±15%)

| Cap. pF | Cap. Tol. | WVDC STD | Cap. pF | Cap. Tol. | WVDC STD | Cap. pF | Cap. Tol. | WVDC STD |
|---------|-----------|----------|---------|-----------|----------|---------|-----------|----------|
| 1000 | K, M, N | 50 | 2200 | K, M, N | 50 | 5100 | K, M, N | 50 |
| 1200 | K, M, N | 50 | 2700 | K, M, N | 50 | 5600 | K, M, N | 50 |
| 1500 | K, M, N | 50 | 3300 | K, M, N | 50 | 6800 | K, M, N | 50 |
| 1800 | K, M, N | 50 | 3900 | K, M, N | 50 | 8200 | K, M, N | 50 |
| 2000 | K, M, N | 50 | 4700 | K, M, N | 50 | 10000 | K, M, N | 50 |

*STD = Standard voltage rating; HV = High voltage rating



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 Multilayer Capacitors (MLC)

SQ Series Ultra Low ESR MLC



Case Size B

TABLE IV: TC: M (+90±20PPM/°C)

| Cap. pF | Cap. Tol. | WVDC* | | Cap. pF | Cap. Tol. | WVDC* | | Cap. pF | Cap. Tol. | WVDC* | | Cap. pF | Cap. Tol. | WVDC* | |
|---------|-----------|-------|------|---------|------------|-------|------|---------|------------|-------|------|---------|------------|-------|------|
| | | STD | HV | | | STD | HV | | | STD | HV | | | STD | HV |
| 0.1 | B | 500 | 1500 | 2.7 | B, C, D | 500 | 1500 | 22 | F, G, J, K | 500 | 1500 | 180 | F, G, J, K | 300 | 1000 |
| 0.2 | B | 500 | 1500 | 3.0 | B, C, D | 500 | 1500 | 24 | F, G, J, K | 500 | 1500 | 200 | F, G, J, K | 300 | 1000 |
| 0.3 | B, C | 500 | 1500 | 3.3 | B, C, D | 500 | 1500 | 27 | F, G, J, K | 500 | 1500 | 220 | F, G, J, K | 200 | 1000 |
| 0.4 | B, C | 500 | 1500 | 3.6 | B, C, D | 500 | 1500 | 30 | F, G, J, K | 500 | 1500 | 240 | F, G, J, K | 200 | 600 |
| 0.5 | B, C, D | 500 | 1500 | 3.9 | B, C, D | 500 | 1500 | 33 | F, G, J, K | 500 | 1500 | 270 | F, G, J, K | 200 | 600 |
| 0.6 | B, C, D | 500 | 1500 | 4.3 | B, C, D | 500 | 1500 | 36 | F, G, J, K | 500 | 1500 | 300 | F, G, J, K | 200 | 600 |
| 0.7 | B, C, D | 500 | 1500 | 4.7 | B, C, D | 500 | 1500 | 39 | F, G, J, K | 500 | 1500 | 330 | F, G, J, K | 200 | 600 |
| 0.8 | B, C, D | 500 | 1500 | 5.1 | B, C, D | 500 | 1500 | 43 | F, G, J, K | 500 | 1500 | 360 | F, G, J, K | 200 | 600 |
| 0.9 | B, C, D | 500 | 1500 | 5.6 | B, C, D | 500 | 1500 | 47 | F, G, J, K | 500 | 1500 | 390 | F, G, J, K | 200 | 600 |
| 1.0 | B, C, D | 500 | 1500 | 6.2 | B, C, D | 500 | 1500 | 51 | F, G, J, K | 500 | 1500 | 430 | F, G, J, K | 200 | 600 |
| 1.1 | B, C, D | 500 | 1500 | 6.8 | B, C, J, K | 500 | 1500 | 56 | F, G, J, K | 500 | 1500 | 470 | F, G, J, K | 200 | 600 |
| 1.2 | B, C, D | 500 | 1500 | 7.5 | B, C, J, K | 500 | 1500 | 62 | F, G, J, K | 500 | 1500 | 510 | F, G, J, K | 100 | 300 |
| 1.3 | B, C, D | 500 | 1500 | 8.2 | B, C, J, K | 500 | 1500 | 68 | F, G, J, K | 500 | 1500 | 560 | F, G, J, K | 100 | 300 |
| 1.4 | B, C, D | 500 | 1500 | 9.1 | B, C, J, K | 500 | 1500 | 75 | F, G, J, K | 500 | 1500 | 620 | F, G, J, K | 100 | 300 |
| 1.5 | B, C, D | 500 | 1500 | 10 | F, G, J, K | 500 | 1500 | 82 | F, G, J, K | 500 | 1500 | 680 | F, G, J, K | 50 | 300 |
| 1.6 | B, C, D | 500 | 1500 | 11 | F, G, J, K | 500 | 1500 | 91 | F, G, J, K | 500 | 1500 | 750 | F, G, J, K | 50 | 300 |
| 1.7 | B, C, D | 500 | 1500 | 12 | F, G, J, K | 500 | 1500 | 100 | F, G, J, K | 500 | 1500 | 820 | F, G, J, K | 50 | 300 |
| 1.8 | B, C, D | 500 | 1500 | 13 | F, G, J, K | 500 | 1500 | 110 | F, G, J, K | 300 | 1000 | 910 | F, G, J, K | 50 | 300 |
| 1.9 | B, C, D | 500 | 1500 | 15 | F, G, J, K | 500 | 1500 | 120 | F, G, J, K | 300 | 1000 | 1000 | F, G, J, K | 50 | 300 |
| 2.0 | B, C, D | 500 | 1500 | 16 | F, G, J, K | 500 | 1500 | 130 | F, G, J, K | 300 | 1000 | | | | |
| 2.2 | B, C, D | 500 | 1500 | 18 | F, G, J, K | 500 | 1500 | 150 | F, G, J, K | 300 | 1000 | | | | |
| 2.4 | B, C, D | 500 | 1500 | 20 | F, G, J, K | 500 | 1500 | 160 | F, G, J, K | 300 | 1000 | | | | |

TABLE V: TC: A (0±30PPM/°C)

| Cap. pF | Cap. Tol. | WVDC* | | Cap. pF | Cap. Tol. | WVDC* | | Cap. pF | Cap. Tol. | WVDC* | | Cap. pF | Cap. Tol. | WVDC* | |
|---------|-----------|-------|------|---------|------------|-------|------|---------|------------|-------|------|---------|------------|-------|----|
| | | STD | HV | | | STD | HV | | | STD | HV | | | STD | HV |
| 0.1 | B | 500 | 1500 | 3.9 | B, C, D | 500 | 1500 | 47 | F, G, J, K | 500 | 1500 | 560 | F, G, J, K | 100 | - |
| 0.2 | B | 500 | 1500 | 4.3 | B, C, D | 500 | 1500 | 51 | F, G, J, K | 500 | 1000 | 620 | F, G, J, K | 100 | - |
| 0.3 | B, C | 500 | 1500 | 4.7 | B, C, D | 500 | 1500 | 56 | F, G, J, K | 500 | 1000 | 680 | F, G, J, K | 50 | - |
| 0.4 | B, C | 500 | 1500 | 5.1 | B, C, D | 500 | 1500 | 62 | F, G, J, K | 500 | 1000 | 750 | F, G, J, K | 50 | - |
| 0.5 | B, C, D | 500 | 1500 | 5.6 | B, C, D | 500 | 1500 | 68 | F, G, J, K | 500 | 1000 | 820 | F, G, J, K | 50 | - |
| 0.6 | B, C, D | 500 | 1500 | 6.2 | B, C, D | 500 | 1500 | 75 | F, G, J, K | 500 | 1000 | 910 | F, G, J, K | 50 | - |
| 0.7 | B, C, D | 500 | 1500 | 6.8 | B, C, J, K | 500 | 1500 | 82 | F, G, J, K | 500 | 1000 | 1000 | F, G, J, K | 50 | - |
| 0.8 | B, C, D | 500 | 1500 | 7.5 | B, C, J, K | 500 | 1500 | 91 | F, G, J, K | 500 | 1000 | 1100 | F, G, J, K | 50 | - |
| 0.9 | B, C, D | 500 | 1500 | 8.2 | B, C, J, K | 500 | 1500 | 100 | F, G, J, K | 500 | 1000 | 1200 | F, G, J, K | 50 | - |
| 1.0 | B, C, D | 500 | 1500 | 9.1 | B, C, J, K | 500 | 1500 | 110 | F, G, J, K | 300 | 1000 | 1300 | F, G, J, K | 50 | - |
| 1.1 | B, C, D | 500 | 1500 | 10 | F, G, J, K | 500 | 1500 | 120 | F, G, J, K | 300 | 1000 | 1500 | F, G, J, K | 50 | - |
| 1.2 | B, C, D | 500 | 1500 | 11 | F, G, J, K | 500 | 1500 | 130 | F, G, J, K | 300 | 1000 | 1600 | F, G, J, K | 50 | - |
| 1.3 | B, C, D | 500 | 1500 | 12 | F, G, J, K | 500 | 1500 | 150 | F, G, J, K | 300 | 1000 | 1800 | F, G, J, K | 50 | - |
| 1.4 | B, C, D | 500 | 1500 | 13 | F, G, J, K | 500 | 1500 | 160 | F, G, J, K | 300 | 1000 | 2000 | F, G, J, K | 50 | - |
| 1.5 | B, C, D | 500 | 1500 | 15 | F, G, J, K | 500 | 1500 | 180 | F, G, J, K | 300 | 1000 | 2200 | F, G, J, K | 50 | - |
| 1.6 | B, C, D | 500 | 1500 | 16 | F, G, J, K | 500 | 1500 | 200 | F, G, J, K | 300 | 1000 | 2400 | F, G, J, K | 50 | - |
| 1.7 | B, C, D | 500 | 1500 | 18 | F, G, J, K | 500 | 1500 | 220 | F, G, J, K | 200 | - | 2700 | F, G, J, K | 50 | - |
| 1.8 | B, C, D | 500 | 1500 | 20 | F, G, J, K | 500 | 1500 | 240 | F, G, J, K | 200 | - | 3000 | F, G, J, K | 50 | - |
| 1.9 | B, C, D | 500 | 1500 | 22 | F, G, J, K | 500 | 1500 | 270 | F, G, J, K | 200 | - | 3300 | F, G, J, K | 50 | - |
| 2.0 | B, C, D | 500 | 1500 | 24 | F, G, J, K | 500 | 1500 | 300 | F, G, J, K | 200 | - | 3600 | F, G, J, K | 50 | - |
| 2.2 | B, C, D | 500 | 1500 | 27 | F, G, J, K | 500 | 1500 | 330 | F, G, J, K | 200 | - | 3900 | F, G, J, K | 50 | - |
| 2.4 | B, C, D | 500 | 1500 | 30 | F, G, J, K | 500 | 1500 | 360 | F, G, J, K | 200 | - | 4300 | F, G, J, K | 50 | - |
| 2.7 | B, C, D | 500 | 1500 | 33 | F, G, J, K | 500 | 1500 | 390 | F, G, J, K | 200 | - | 4700 | F, G, J, K | 50 | - |
| 3.0 | B, C, D | 500 | 1500 | 36 | F, G, J, K | 500 | 1500 | 430 | F, G, J, K | 200 | - | 5000 | F, G, J, K | 50 | - |
| 3.3 | B, C, D | 500 | 1500 | 39 | F, G, J, K | 500 | 1500 | 470 | F, G, J, K | 200 | - | 5100 | F, G, J, K | 50 | - |
| 3.6 | B, C, D | 500 | 1500 | 43 | F, G, J, K | 500 | 1500 | 510 | F, G, J, K | 100 | - | | | | |

TABLE VI: TC: C (±15%)

| Cap. pF | Cap. Tol. | WVDC STD | Cap. pF | Cap. Tol. | WVDC STD | Cap. pF | Cap. Tol. | WVDC STD |
|---------|-----------|----------|---------|-----------|----------|---------|-----------|----------|
| 5000 | K, M, N | 50 | 15000 | K, M, N | 50 | 47000 | K, M, N | 50 |
| 6800 | K, M, N | 50 | 18000 | K, M, N | 50 | 68000 | K, M, N | 50 |
| 8200 | K, M, N | 50 | 27000 | K, M, N | 50 | 82000 | K, M, N | 50 |
| 10000 | K, M, N | 50 | 33000 | K, M, N | 50 | 100000 | K, M, N | 50 |
| 12000 | K, M, N | 50 | 39000 | K, M, N | 50 | | | |

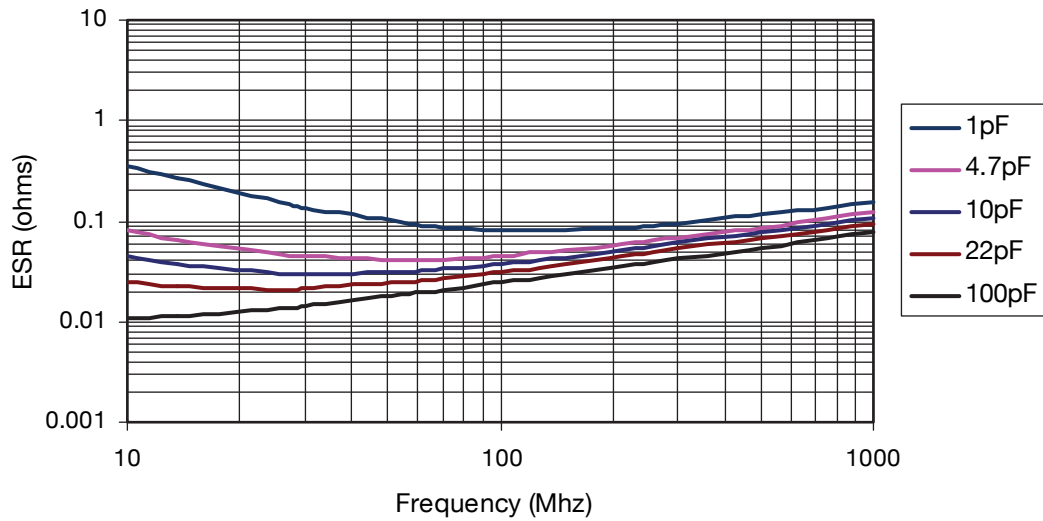
*STD = Standard voltage rating; HV = High voltage rating



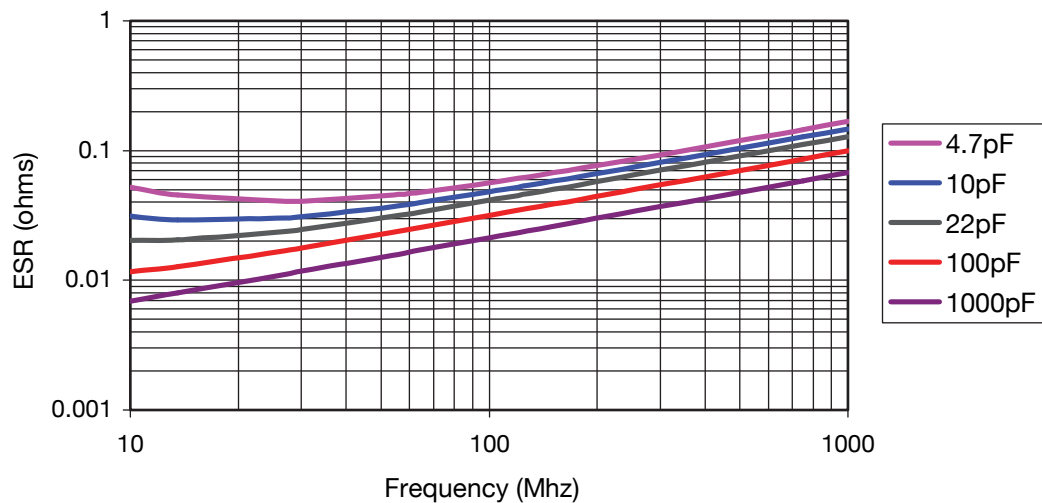
RF/Microwave Capacitors
RF/Microwave Multilayer Capacitors (MLC)
SQ Series Ultra Low ESR MLC

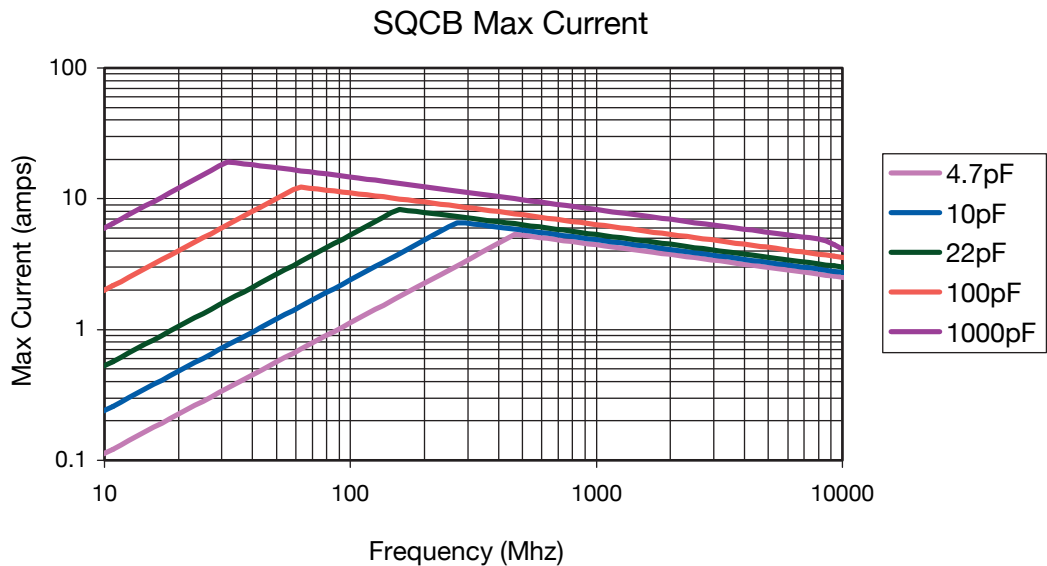
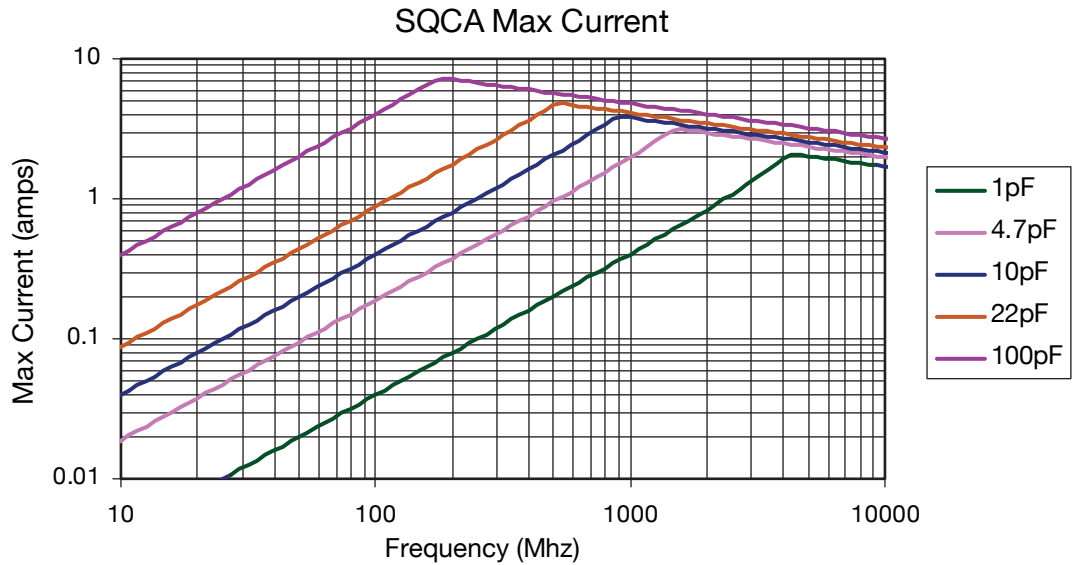


Typical ESR SQCA



Typical ESR SQCB

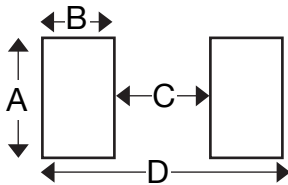
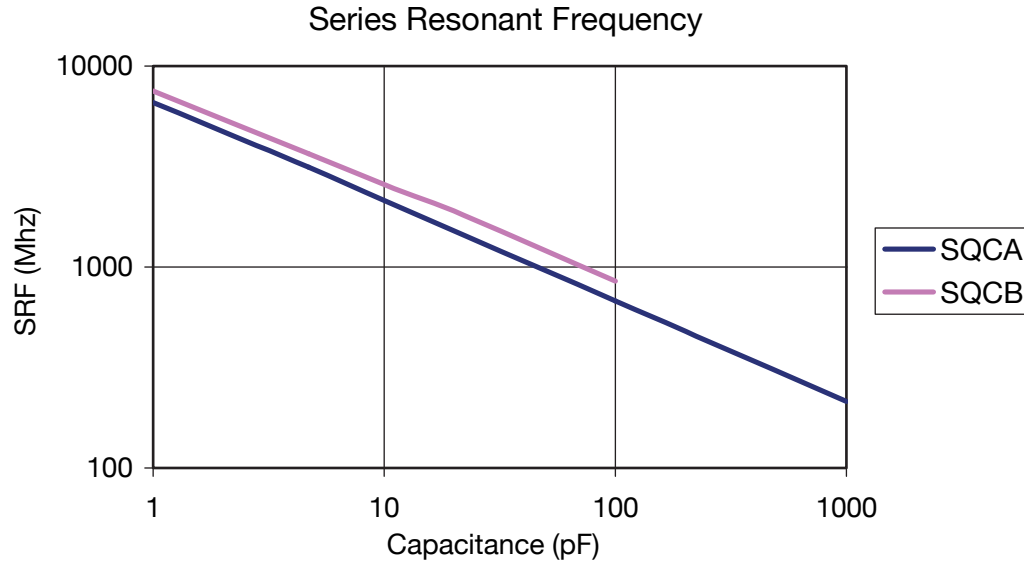




RF/Microwave Capacitors

RF/Microwave Multilayer Capacitors (MLC)

SQ Series Ultra Low ESR MLC



MOUNTING PAD DIMENSIONS:

inches (millimeters)

| Case | A min | B min | C min | D min |
|------|---------------|---------------|---------------|---------------|
| SQCA | 0.082 (2.083) | 0.051 (1.295) | 0.032 (0.813) | 0.130 (3.302) |
| SQCB | 0.131 (3.327) | 0.051 (1.295) | 0.074 (1.880) | 0.177 (4.496) |
| SQCS | 0.038 (0.965) | 0.043 (1.092) | 0.025 (0.635) | 0.112 (2.845) |
| SQCF | 0.059 (1.499) | 0.051 (1.295) | 0.024 (0.610) | 0.125 (3.175) |

SQCA & SQCB DESIGN KITS

| PN | Series | Diel | Term | Range | Different Values | # per value |
|-------------|--------|------|---------------|-----------------|------------------|-------------|
| KITSQ100LF | SQCA | P90 | 100% Tin RoHS | .1 to 2pF | 16 | 15 |
| KITSQ400LF | SQCA | COG | 100% Tin RoHS | .1 to 2pF | 16 | 15 |
| KITSQ200LF | SQCA | P90 | 100% Tin RoHS | 1 to 10pF | 16 | 15 |
| KITSQ500LF | SQCA | COG | 100% Tin RoHS | 1 to 10pF | 16 | 15 |
| KITSQ300LF | SQCA | P90 | 100% Tin RoHS | 10 to 100pF | 16 | 15 |
| KITSQ600LF | SQCA | COG | 100% Tin RoHS | 10 to 100pF | 16 | 15 |
| KITSQ700LF | SQCA | COG | 100% Tin RoHS | 100 to 1000pF | 16 | 15 |
| KITSQ800LF | SQCB | P90 | 100% Tin RoHS | 1 to 10pF | 16 | 15 |
| KITSQ1100LF | SQCB | COG | 100% Tin RoHS | 1 to 10pF | 16 | 15 |
| KITSQ900LF | SQCB | P90 | 100% Tin RoHS | 10 to 100pF | 16 | 15 |
| KITSQ1200LF | SQCB | COG | 100% Tin RoHS | 10 to 100pF | 16 | 15 |
| KITSQ1000LF | SQCB | P90 | 100% Tin RoHS | 100 to 1000pF | 16 | 15 |
| KITSQ1300LF | SQCB | COG | 100% Tin RoHS | 100 to 1000pF | 16 | 15 |
| KITSQ1400LF | SQCB | COG | 100% Tin RoHS | 1000 to 5100 pF | 11 | 15 |

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