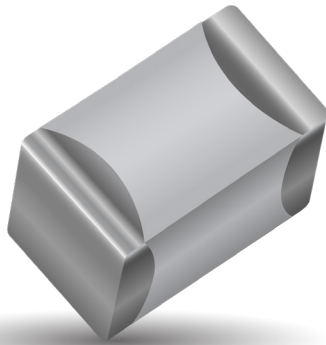


RF/Microwave Capacitors

RF/Microwave Multilayer Capacitors (MLC)

200A Series BX Ceramic



FEATURES

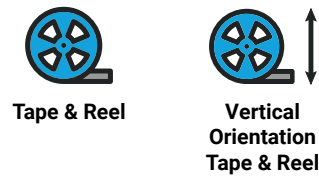
- Case A Size (.055" x .055")
- Lowest ESR/ESL
- Rugged Construction
- Extended WVDC Available
- Capacitance Range 510 pF to 0.01 μ F
- Mid-K
- High Reliability

GENERAL DESCRIPTION

KYOCERA AVX, the industry leader, offers new improved ESR/ESL performance for the 200A Series Capacitors. This Series exhibits high volumetric efficiency with superior IR characteristics. Ceramic construction provides a rugged, hermetic package.

Typical functional applications: Bypass, Coupling and DC Blocking. Typical circuit applications: Switching Power Supplies and High Power Broadband Coupling.

PACKAGING OPTIONS



ELECTRICAL SPECIFICATIONS

| | |
|--|---|
| Temperature Coefficient (TCC) | $\pm 15\%$ maximum (-55°C to +125°C) |
| Capacitance Range | 510 pF to 0.01 μ F |
| Operating Temperature | -55°C to +125°C* |
| Dissipation Factor | 2.5% Max @ 1 KHz |
| Insulation Resistance (IR) | 510 pF to 0.01 μ F 10 ⁴ Megohms min. @ 25°C at rated WVDC 10 ³ Megohms min. @ 125°C at rated WVDC |
| Dielectric Absorption | 2% Typical |
| Working Voltage (WVDC) | See Capacitance Values table |
| Dielectric Withstanding Voltage (DWV) | 250% of rated WVDC for 5 seconds |
| Aging Effects | 3% maximum per decade hour. |
| Piezoelectric Effects | Negligible |
| Capacitance Drift | \pm (0.02% or 0.02 pF), whichever is greater |

ENVIRONMENTAL CHARACTERISTICS

| | |
|-----------------------------|---|
| 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 applied. |
| Termination Styles | Available in various surface mount styles. See Mechanical Configurations, page 3 |
| Terminal Strength | Terminations for chips and Pellets withstand a pull of 5 lbs. min., 10 lbs. typical, for 5 seconds in direction perpendicular to the termination surface of the capacitor. Test per MIL-STD-202, method 211 |

RF/Microwave Capacitors

RF/Microwave Multilayer Capacitors (MLC)

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CAPACITANCE VALUES

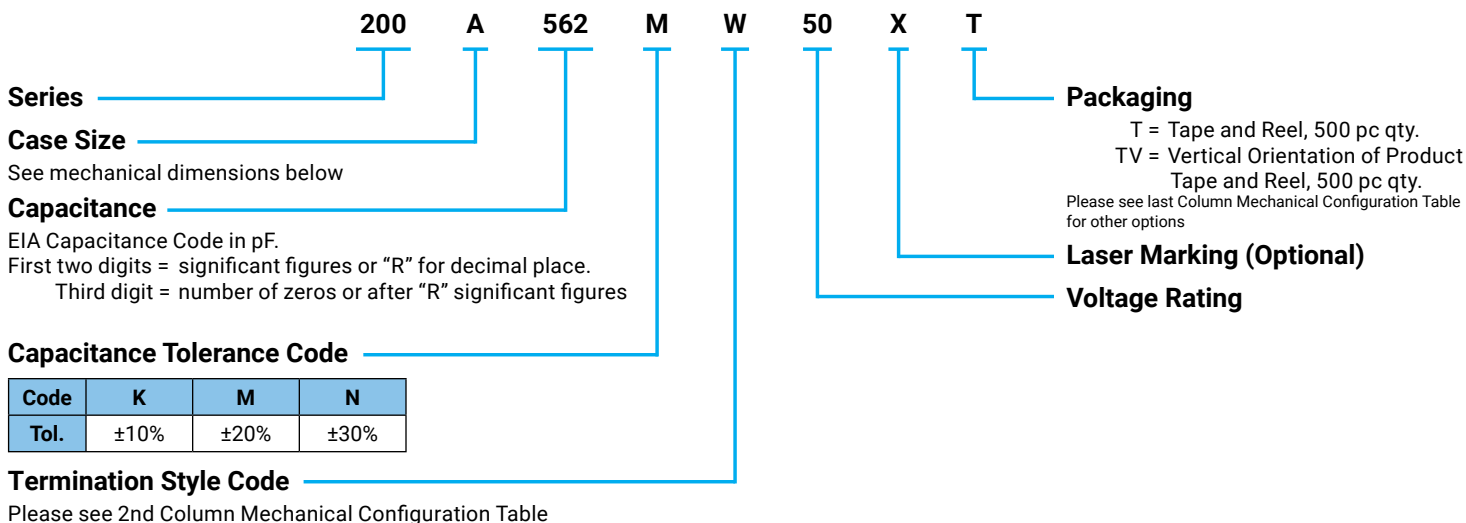
| Cap. Code | Cap. (pF) | Tol. | Rated WVDC | | Cap. Code | Cap. (pF) | Tol. | Rated WVDC | | | | | | | |
|-----------|-----------|---------|------------|------|-----------|-----------|---------|------------|------|--|-----|--------|--|--|--|
| | | | STD. | EXT. | | | | STD. | EXT. | | | | | | |
| 511 | 510 | K, M, N | 50 | 100 | 202 | 2000 | K, M, N | 50 | 100 | | | | | | |
| 561 | 560 | | | | VOLTAGE | | | | | | | | | | |
| 621 | 620 | | | | | | | | | | | | | | |
| 681 | 680 | | | | | | | | | | | | | | |
| 751 | 750 | | | | EXTENDED | | | | | | | | | | |
| 821 | 820 | | | | | | | | | | | | | | |
| 911 | 910 | | | | | | | | | | | | | | |
| 102 | 1000 | | | | EXTENDED | | | | | | | | | | |
| 122 | 1200 | | | | | | | | | | | | | | |
| 152 | 1500 | | | | | | | | | | | | | | |
| 182 | 1800 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | 103 | 10,000 | | | |

$v_{rms} = 0.707 \times WVDC$

Special values, tolerances, different WVDC and matching available. Please consult factory.

*Extended WVDC offering meets X7R characteristics

HOW TO ORDER



The above part number refers to a 200 A Series (case size A) 5600 pF capacitor, M tolerance (±20%), 50 WVDC, with W termination (Tin / Lead, Solder Plated over Nickel Barrier), Laser Marking and Tape and Reel 1000 pc qty. Packaging

RF/Microwave Capacitors

RF/Microwave Multilayer Capacitors (MLC)

200A Series BX Ceramic



MECHANICAL CONFIGURATION

| Series & Case Size | Term. Code | Case Size & Type | Outline W/T is a Termination Surface | Body Dimensions inches (mm) | | | Lead and Termination Dimensions and Material | | Pkg Type & Qty | Pkg Code |
|--------------------|------------|------------------------------|--------------------------------------|-------------------------------------|----------------------------|------------------------|--|--|---|--------------------------|
| | | | | Length (L) | Width (W) | Thickness (T) | Overlap (Y) | Materials | | |
| 200A | W | A Solder Plate | | .055+.015 -.010 (1.40+0.38-0.25) | .055 ±.015 (1.40 ±0.38) | .057 (1.45) max. | .010 + .010 - .005 (0.25 + 0.25 - 0.13) | Tin/ Lead, Solder Plated over Nickel Barrier Termination | T&R, 1000 or 500 pcs Vertical T&R, 1000 or 500 pcs Cap Pac, 100 pcs | T1K or T TV1k or TV C100 |
| 200A | P | A Pellet | | .055+.025 -.010 (1.40+0.64-0.25) | .055 ±.015 (1.40 ±0.38) | | | Heavy Tin/ Lead Coated, over Nickel Barrier Termination | T&R, 1000 or 500 pcs Vertical T&R, 1000 or 500 pcs Cap Pac, 100 pcs | T1K or T TV1k or TV C100 |
| 200A | T | A Solderable Nickel Barrier | | .055+.015 -.010 (1.40+0.38-0.25) | .055 ±.015 (1.40 ±0.38) | | | Tin Plated over Nickel Barrier Termination | T&R, 1000 or 500 pcs Vertical T&R, 1000 or 500 pcs Cap Pac, 100 pcs | T1K or T TV1k or TV C100 |
| 200A | CA | A Gold Chip | | .055+.015 -.010 (1.40+0.38-0.25) | .055 ±.015 (1.40 ±0.38) | | | Gold Plated over Nickel Barrier Termination | T&R, 1000 or 500 pcs Vertical T&R, 1000 or 500 pcs Cap Pac, 100 pcs | T1K or T TV1k or TV C100 |

NON-MECHANICAL CONFIGURATION

| Series & Case Size | Term. Code | Case Size & Type | Outline W/T is a Termination Surface | Body Dimensions inches (mm) | | | Lead and Termination Dimensions and Material | | Pkg Type & Qty | Pkg Code |
|--------------------|------------|--------------------------------------|--------------------------------------|-------------------------------------|----------------------------|------------------------|--|---|---|--------------------------|
| | | | | Length (L) | Width (W) | Thickness (T) | Overlap (Y) | Materials | | |
| 200A | WN | A Non-Mag Solder Plate | | .055+.015 -.010 (1.40+0.38-0.25) | .055 ±.015 (1.40 ±0.38) | .057 (1.45) max. | .010 + .010 - .005 (0.25 + 0.25 - 0.13) | Tin / Lead, Solder Plated over Non-Magnetic Barrier Termination | T&R, 1000 or 500 pcs Vertical T&R, 1000 or 500 pcs Cap Pac, 100 pcs | T1K or T TV1k or TV C100 |
| 200A | PN | A Non-Mag Pellet | | .055+.025 -.010 (1.40+0.64-0.25) | .055 ±.015 (1.40 ±0.38) | | | Heavy Tin/Lead Coated, over Non-Magnetic Barrier Termination | T&R, 1000 or 500 pcs Vertical T&R, 1000 or 500 pcs Cap Pac, 100 pcs | T1K or T TV1k or TV C100 |
| 200A | TN | A Non-Mag Solderable Nickel Barrier | | .055+.015 -.010 (1.40+0.38-0.25) | .055 ±.015 (1.40 ±0.38) | | | Tin Plated over Non-Magnetic Barrier Termination | T&R, 1000 or 500 pcs Vertical T&R, 1000 or 500 pcs Cap Pac, 100 pcs | T1K or T TV1k or TV C100 |

SUGGESTED MOUNTING PAD DIMENSIONS

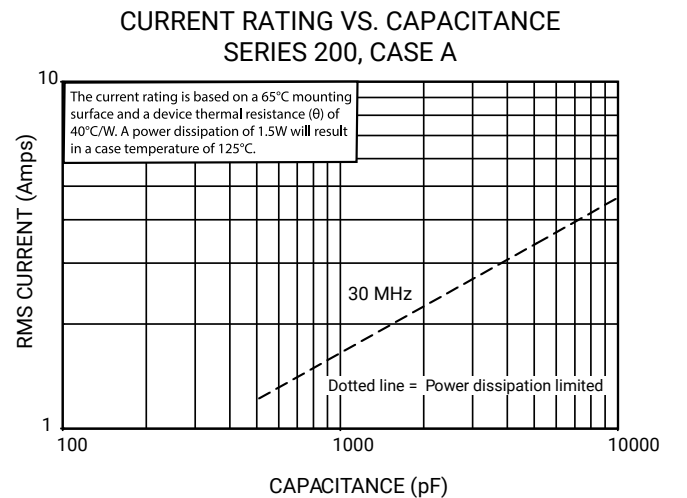
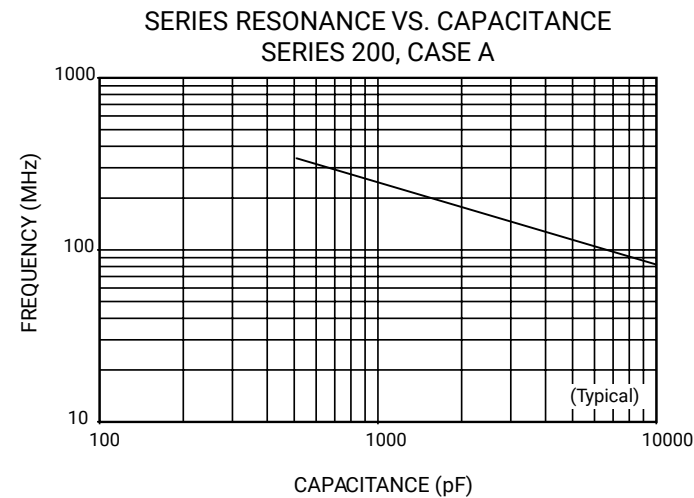
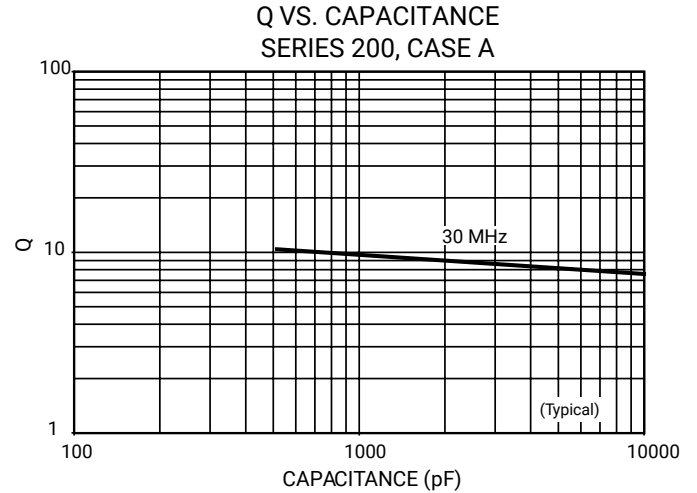
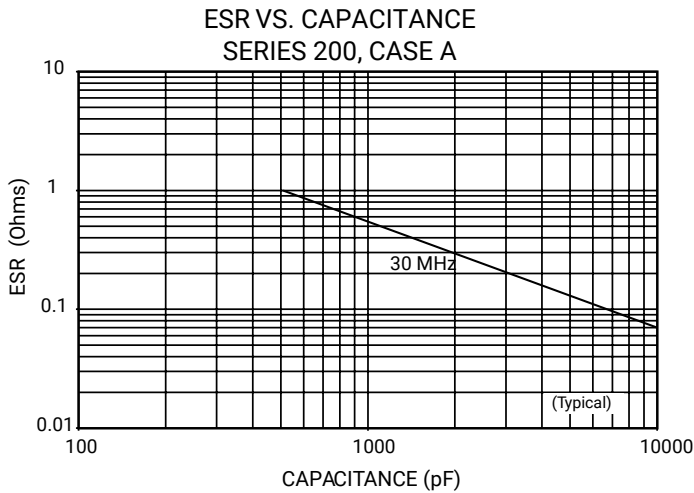
Horizontal Electrode Orientation

Vertical Electrode Orientation

| Case A | | | | | |
|------------------|--------------|--------|--------|--------|--------|
| Mount Type | Pad Size | A Min. | B Min. | C Min. | D Min. |
| Vertical Mount | Normal | .070 | .050 | .030 | .130 |
| | High Density | .050 | .030 | .030 | .090 |
| Horizontal Mount | Normal | .080 | .050 | .030 | .130 |
| | High Density | .060 | .030 | .030 | .090 |

Dimensions are in inches.

PERFORMANCE DATA



Mouser Electronics

Authorized Distributor

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Kyocera AVX:

[200A103MW50XT](#) [200A102MW50XT](#) [200A102KP50XT](#) [200A103KW50XT](#) [200A100FCA150XT](#) [200A100FP150XT](#)
[200A100FT150XT](#) [200A100GCA150XT](#) [200A100GP150XT](#) [200A100GT150XT](#) [200A910KCA150XT](#)
[200A910KP150XT](#) [200A910KT150XT](#) [200A910GCA150XT](#) [200A910GP150XT](#) [200A910GT150XT](#)
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