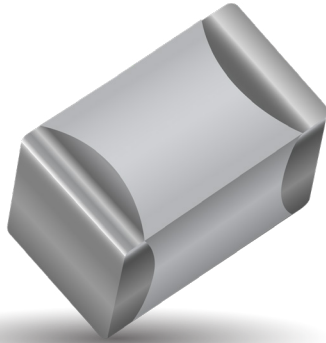


# RF/Microwave Capacitors

## 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  $\mu$ 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



Tape & Reel



Vertical  
Orientation  
Tape & Reel

#### ELECTRICAL SPECIFICATIONS

Temperature Coefficient (TCC)	$\pm 15\%$ maximum (-55°C to +125°C)
Capacitance Range	510 pF to 0.01 $\mu$ F
Operating Temperature	-55°C to +125°C*
Dissipation Factor	2.5% Max @ 1 KHz
Insulation Resistance (IR)	510 pF to 0.01 $\mu$ F 10 <sup>4</sup> Megohms min. @ 25°C at rated WVDC 10 <sup>3</sup> 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

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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	VOLTAGE	202	2000	K, M, N	50	VOLTAGE
561	560				222	2200			
621	620				272	2700			
681	680				332	3300			
751	750				392	3900			
821	820			EXTENDED	472	4700			EXTENDED
911	910				502	5000			
102	1000				562	5600			
122	1200				682	6800			
152	1500				822	8200			
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

**Series** 200 **Case Size** A **Capacitance** 562 **Capacitance Tolerance Code** M **Termination Style Code** W **Voltage Rating** 50 **Laser Marking (Optional)** X **Packaging** T

See mechanical dimensions below

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

Code	K	M	N
Tol.	±10%	±20%	±30%

Please see 2nd Column Mechanical Configuration Table

**Packaging**  
T = Tape and Reel, 500 pc qty.  
TV = Vertical Orientation of Product  
Tape and Reel, 500 pc qty.  
Please see last Column Mechanical Configuration Table for other options

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

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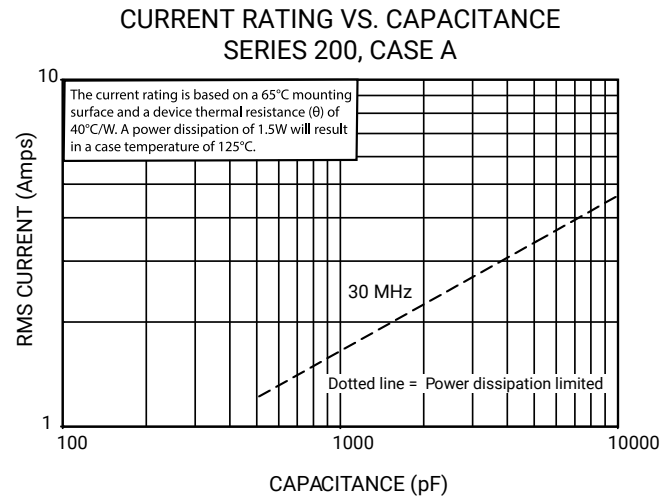
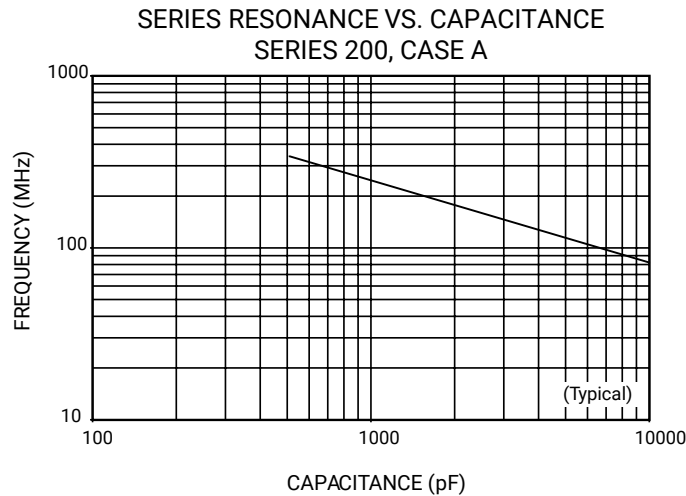
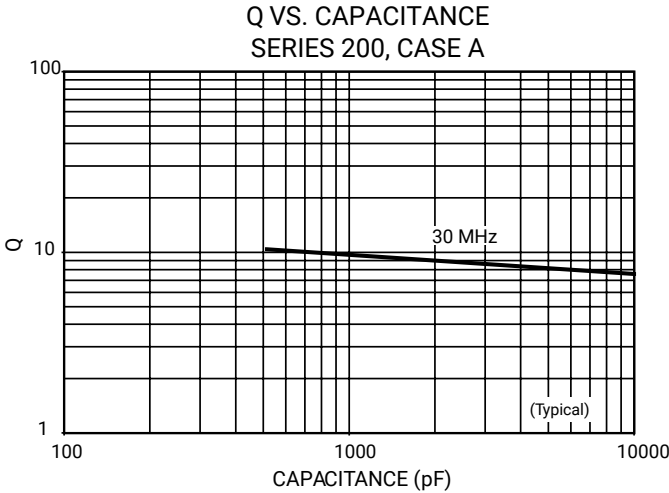
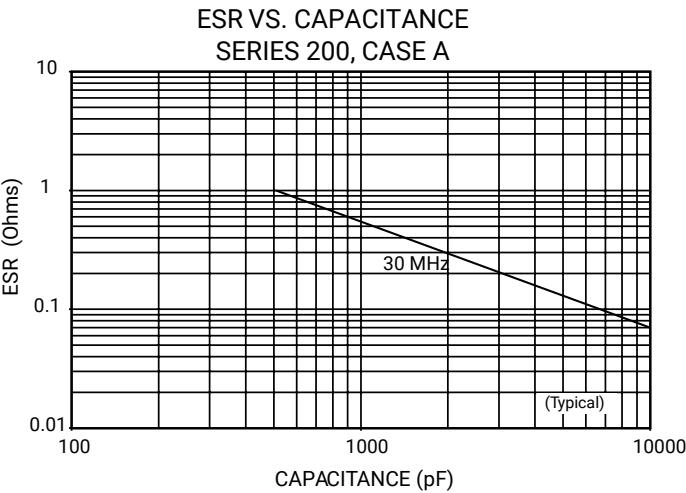


#### SUGGESTED MOUNTING PAD DIMENSIONS

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

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## KYOCERA AVX:

[200A103KCADRB](#) [200A103MW50XT](#) [200A102MW50XT](#) [200A102KP50XT](#) [200A103KW50XT](#) [200A100FCA150XT](#)  
[200A100FP150XT](#) [200A100FT150XT](#) [200A100GCA150XT](#) [200A100GP150XT](#) [200A100GT150XT](#)  
[200A910KCA150XT](#) [200A910KP150XT](#) [200A910KT150XT](#) [200A910GCA150XT](#) [200A910GP150XT](#)  
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[200A820JCA150XT](#) [200A820JP150XT](#) [200A820JT150XT](#) [200A820KCA150XT](#) [200A750KP150XT](#) [200A750KT150XT](#)  
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[200A561KT150XT](#)