



X7R RF By-Pass Capacitors

0505X (0.055" x 0.055")

Product Features

- High Q
- High Power
- Low ESR/ESL
- Low Noise
- High Self-Resonance
- Ultra Stable Performance
- Capacitance Range:
470pF to 10000pF
- Working Voltage: 50V

Product Applications

Typical Functional Applications:

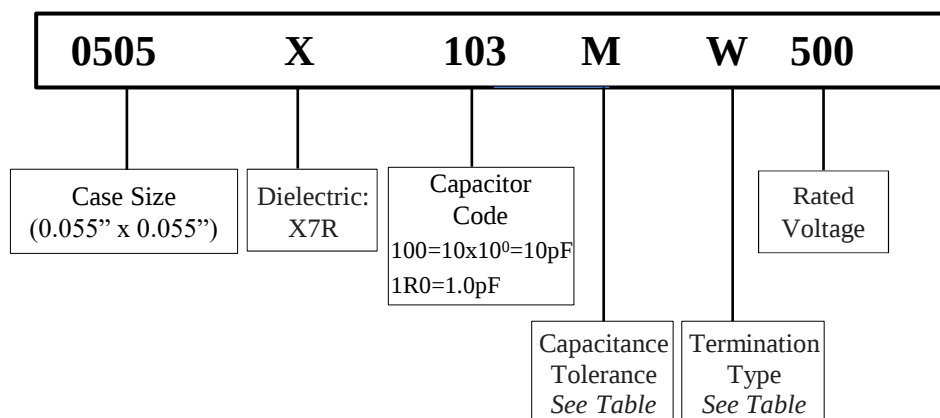
- Tuning • Bypass • Coupling
- Feedback • D.C. Blocking
- Impedance Matching

Typical Circuit Applications:

- UHF/Microwave RF Power Amplifiers
- Mixers • Oscillators • Filter Networks
- Low Noise Amplifiers • Timing Circuits and Delay Lines

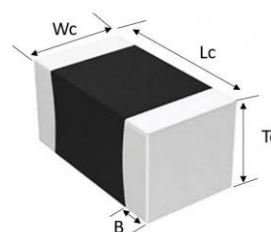


Part Numbering



Capacitor Dimensions Unit: inch (mm)

Length	Width	Thickness	Overlap
Lc	Wc	Tc	B
0.055	0.055 ± 0.010	0.057	0.014 ± 0.006
(1.40	(1.40 ± 0.25)	(1.45 max)	(0.356 ± 0.152)
+0.015 -0.010 +0.38 -0.25)			





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0505X (0.055" x 0.055")**≠ Capacitance Tolerance Codes**

Code	K	M
Tol.	±10%	±20%

≠ Termination Types

Termination Code	Termination
W	100% Tin Solder over Nickel Barrier
L	90%Tin/10%Lead Solder over Nickel Barrier
P (Non-Magnetic) 	100% Tin Solder over Copper Barrier
C	100% Silver Solder over Palladium Barrier

Note: "Non-Magnetic" means no magnetic materials.

≠ 0505X Capacitance Values

Special capacitances, tolerances and WVDC are available. Please contact PPI.

Cap. pF	Cap Code	Tol.	Rated WVDC	Cap. pF	Cap Code	Tol.	Rated WVDC	Cap. pF	Cap Code	Tol.	Rated WVDC
470	471	K,M	50V	1500	152	K,M	50V	4700	472	K,M	50V
560	561			1800	182			5000	502		
680	681			2200	222			5600	562		
820	821			2700	272			6800	682		
1000	102			3300	332			8200	822		
1200	122			3900	392			10000	103		



⚡ Electrical Specifications

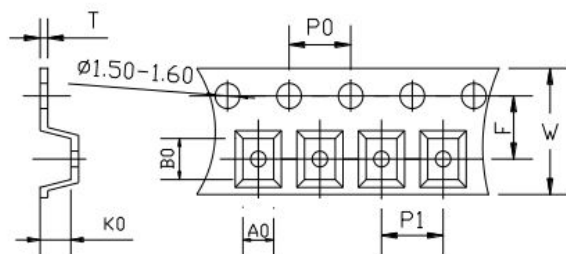
Operating Temperature Range	-55°C to +125°C
Insulation Resistance (IR)	Insulation Resistance @ +25°C > 1000ΩF Insulation Resistance @ +125°C > 100ΩF
Temperature Coefficient	+15%; (-55°C to +125°C)
Dielectric Withstanding Voltage (DWV)	2.5x WVDC, 5 seconds
Max Dissipation Factor	0.025 (2.5%) max
Test Parameters	1kHz, 1.0 VRMS, 25°C

⚡ Recommended Land Pattern Dimensions

Regarding Landing Patterns, please refer to IPC-7351B (table 3-5, 3-6).

⚡ Tape & Reel Specifications

Orientation	Measurement Unit	W	P0	P1	T	F	Min. Qty per Reel	Std. Qty per Reel	Tape Material
H	in.	0.32	0.16	0.16	0.01	0.14	500	4000	Plastic
	mm	8.00	4.00	4.00	0.30	3.50			



A₀B₀K₀

- Determined by component size. Typical clearance between the cavity and the component is: .50 (.002) min to .65 (.026) max for 12mm tape.
- The component cannot rotate more than 20° within the determined cavity.