X7R RF By-Pass Capacitors

2225X (0.220” x 0.250”)

Product Features

- High Q
- High RF Current/Voltage
- Ultra Stable Performance
- Capacitance Range: 10nF to 1µF
- Working Voltage: 300V

Product Applications

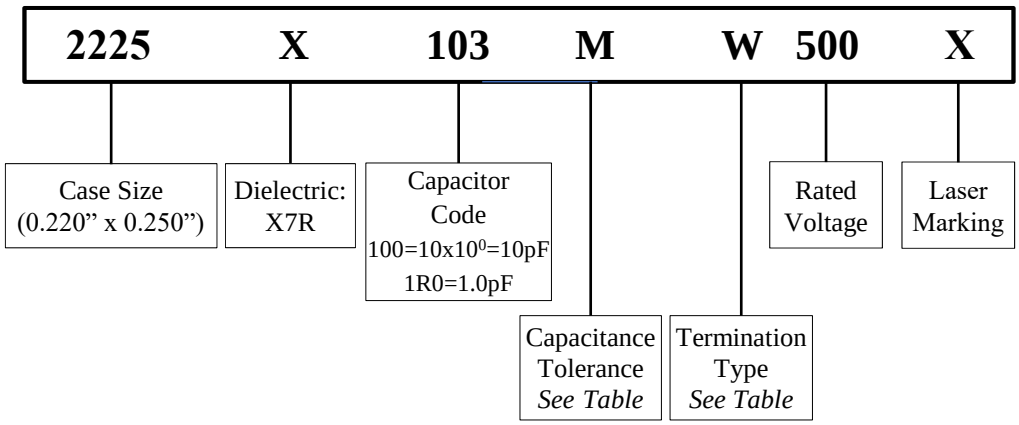
Typical Functional Applications:

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

Typical Circuit Applications

• UHF/Microwave RF Power Amplifiers
• Antenna Tuning • Plasma Chambers
• Medical Equipment

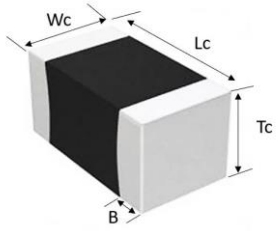
Part Numbering



Capacitor Dimensions

Unit: inch (mm)

Length	Width	Thickness	Overlap
Lc	Wc	Tc	B
0.230 +0.020 -0.012	0.250 ± 0.015	0.165 max	0.030 ± 0.015
(5.84 +0.51 -0.30)	(6.35 ± 0.38)	(4.19 max)	(0.762 ± 0.380)



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Capacitance Tolerance Codes

Code	K	M
Tol.	±10%	±20%

Voltage Codes

Voltage	Code
100V	101
150V	151
200V	201
250V	251
300V	301

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.

2225X Capacitance Values

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

Cap. uF	Cap Code	Tol.	Rated WVDC	Cap. uF	Cap Code	Tol.	Rated WVDC	Cap. uF	Cap Code	Tol.	Rated WVDC
0.010	103	K,M	300V	**0.082**	823	K,M	200V	**0.560**	564	K,M	150V
0.012	123			**0.100**	104			**0.680**	684		
0.015	153			**0.120**	124			**0.820**	824	K,M	100V
0.022	223			**0.150**	154			**1.000**	105		
0.033	333	K,M	250V	**0.220**	224						
0.047	473			**0.330**	334	K,M	150V				
0.068	683			**0.470**	474						

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Electrical Specifications

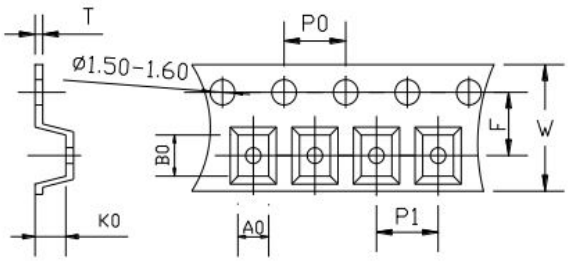
Operating Temperature Range	-55°C to +125°C
Insulation Resistance (IR)	Insulation Resistance @ +25°C > 1000ΩF Insulation Resistance @ +125°C > 100ΩF
Temperature Voltage Coefficient	± 15% Maximum
Dielectric Withstanding Voltage (DWV)	2.5x WVDC, 5 seconds
Max Dissipation Factor	0.025 (2.5%) max
Test Parameters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

Orientation	Measurement Unit	W	P0	P1	T	F	Min. Qty per Reel	Std. Qty per Reel	Tape Material
H	in.	0.47	0.16	0.16	0.02	0.22	500	4000	Plastic
	mm	12.00	4.00	4.00	0.40	5.50			



$A_0B_0K_0$

- 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.