



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

≠ Product Applications

Typical Functional Applications:

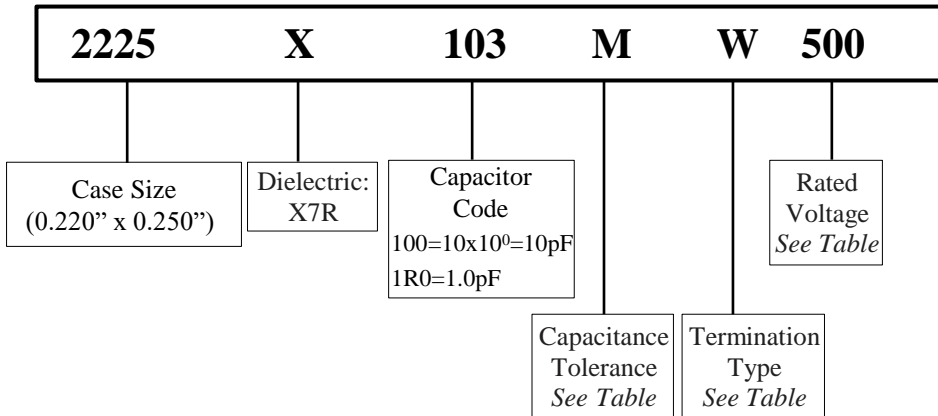
- Tuning • Bypass • Coupling
- D.C. Blocking • Impedance Matching

Typical Circuit Applications

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



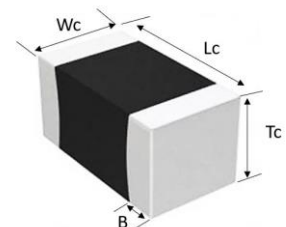
≠ Part Numbering



≠ Capacitor Dimensions

Unit: inch (millimeter)

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





≠ 2225X Capacitance Values

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	K,M	150V				
0.047	473			0.330	334						
0.068	683			0.470	474						

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

≠ Capacitance Tolerance Codes

Code	K	M
Tol.	±10%	±20%

≠ Termination Types

Termination Code	Plated Material
W	Sn/Ni
L	90% Sn10%Pb
P (Non-Magnetic)	Sn/ Cu
C	Ag/Pb
G	Au/Ni

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

≠ Voltage Codes

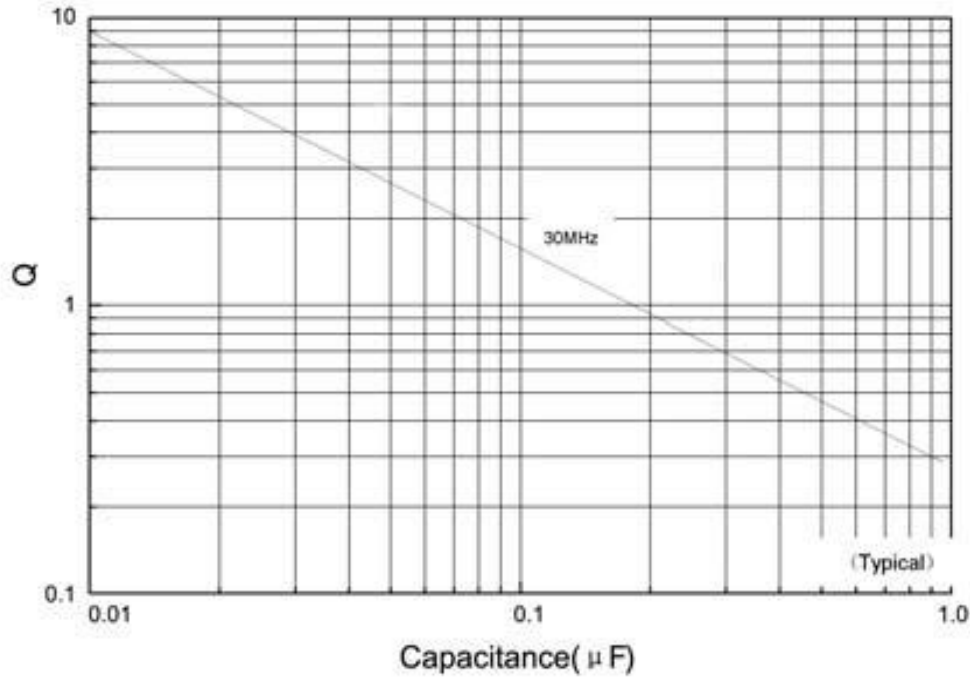
Voltage	Code
100V	101
150V	151
200V	201
250V	251
300V	301

≠ Electrical Specifications

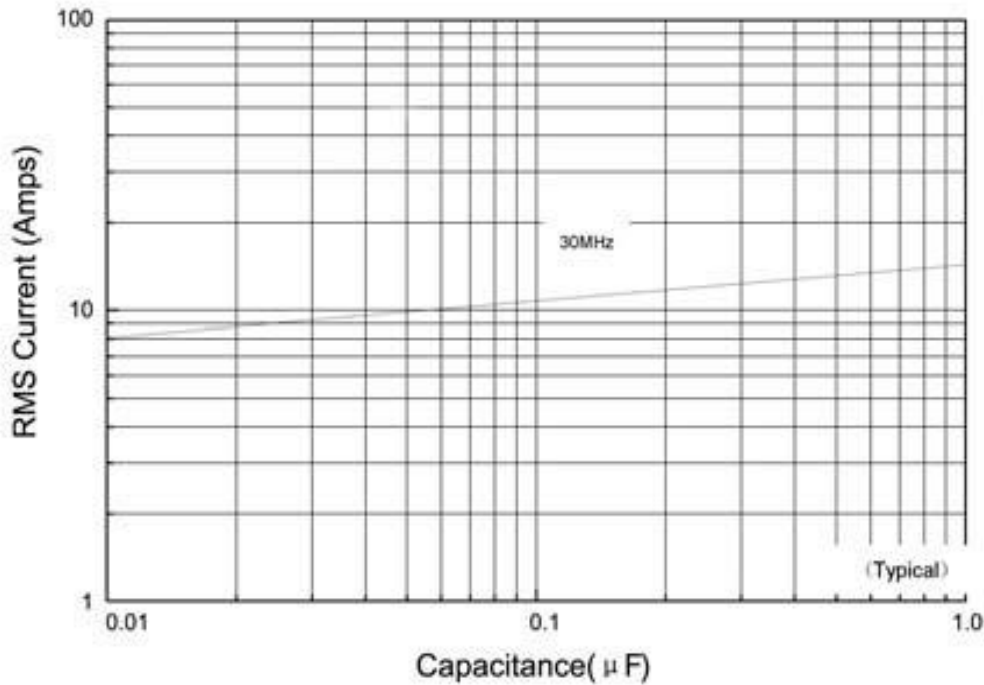
Operating Temperature Range	-55°C to +125°C
Insulation Resistance (IR)	Insulation Resistance @ +25°C > 1000ΩF Insulation Resistance @ +125°C > 100ΩF
Temperature Voltage Coefficient	± 15% Maximum
Dielectric Withstanding Voltage (DWV)	2.5x WVDC, 5 seconds
Max Dissipation Factor	0.025 (2.5%) max
Test Parameters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



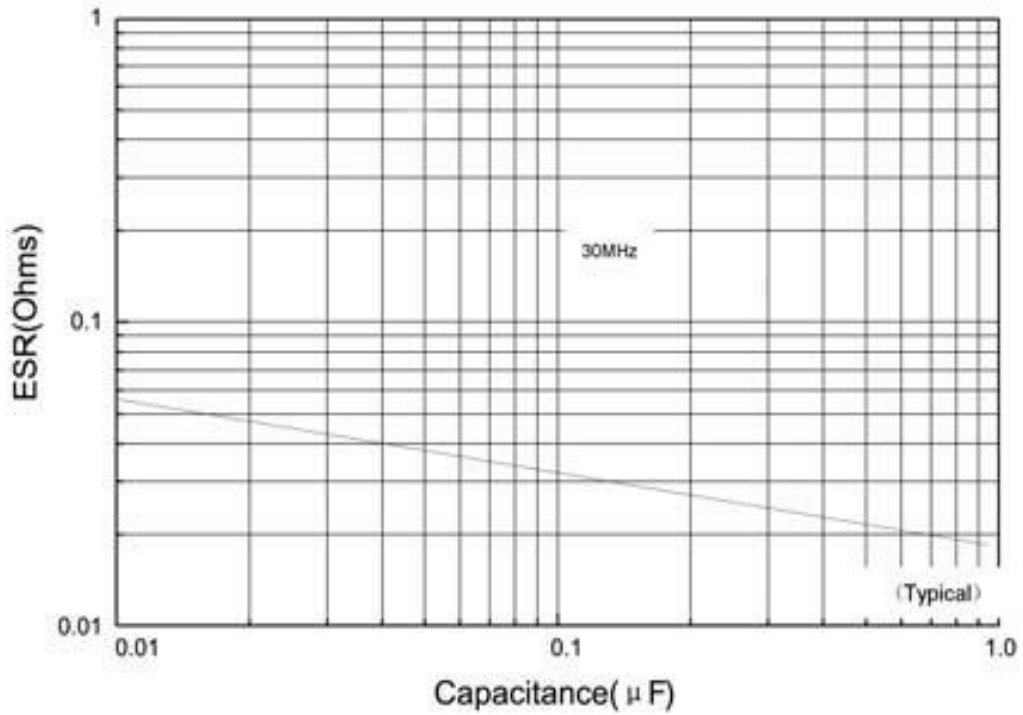
Q vs. Frequency



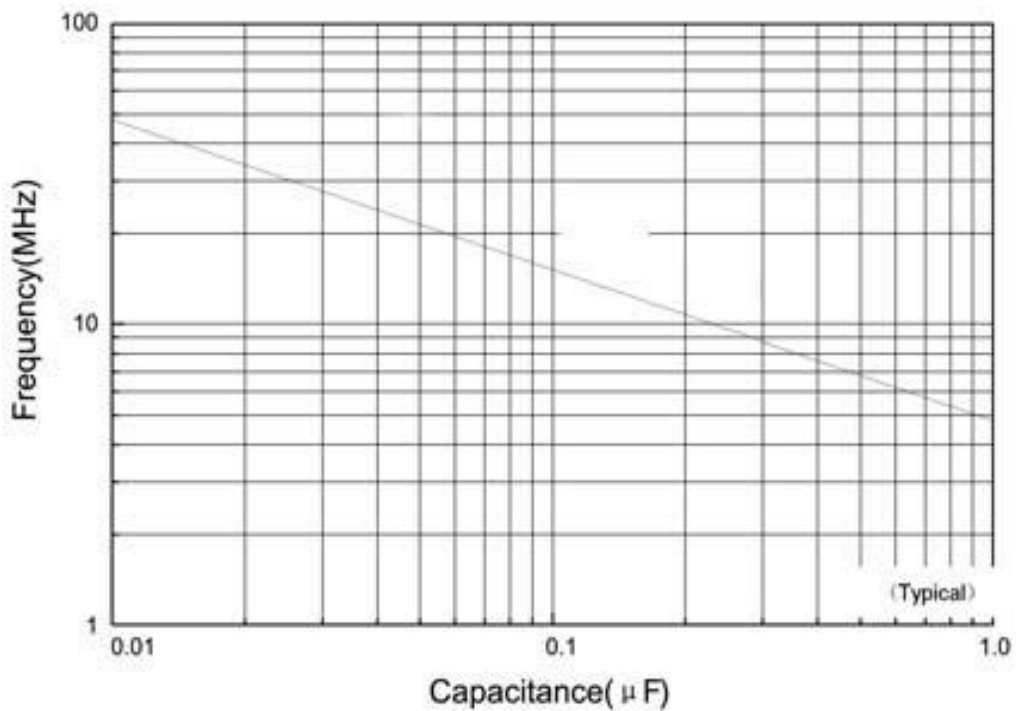
Current Rating vs. Capacitance



≠ ESR vs Capacitance

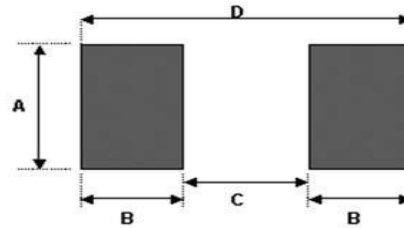


≠ Series Resonance vs. Capacitance



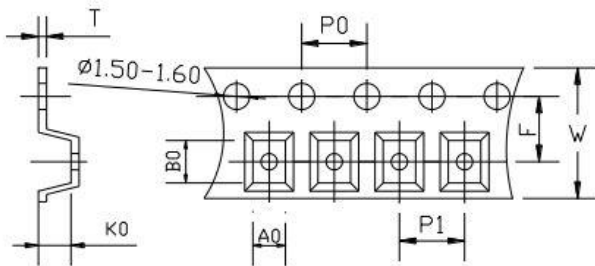
≠ Mounting Pad Recommendations

Orientation	A Min	B Min	C Min	D Min
Horizontal	0.280"	0.050"	0.200"	0.300"



≠ Tape & Reel Specifications (mm)

Horizontal Orientation



Orientation	W	P0	P1	T	F	Qty Min	Qty/reel	Tape Material
Horizontal	8.00	4.00	4.00	0.22	3.50	500	3000	Plastic

A_0 B_0 K_0

- Determined by component size. Typical clearance between the cavity and the component is:
.05 (.002) min to .50 (.020) max for 8mm tape and .50 (.002) min to .65 (.026) max for 12mm tape.
- The component cannot rotate more than 20° within the determined cavity.