

MNT 11

High Temperature 200°C "T" Series
COG (NPO) RF/Microwave Multilayer Capacitors

Features

- Capacitance Range: 0.1pF to 1000pF
- Operating Temperature: -55°C to +200°C
- Rated Voltage: 100V and 50V
- High Q
- Ultra-Stable Performance
- Low ESR/ESL
- High Self-Resonance

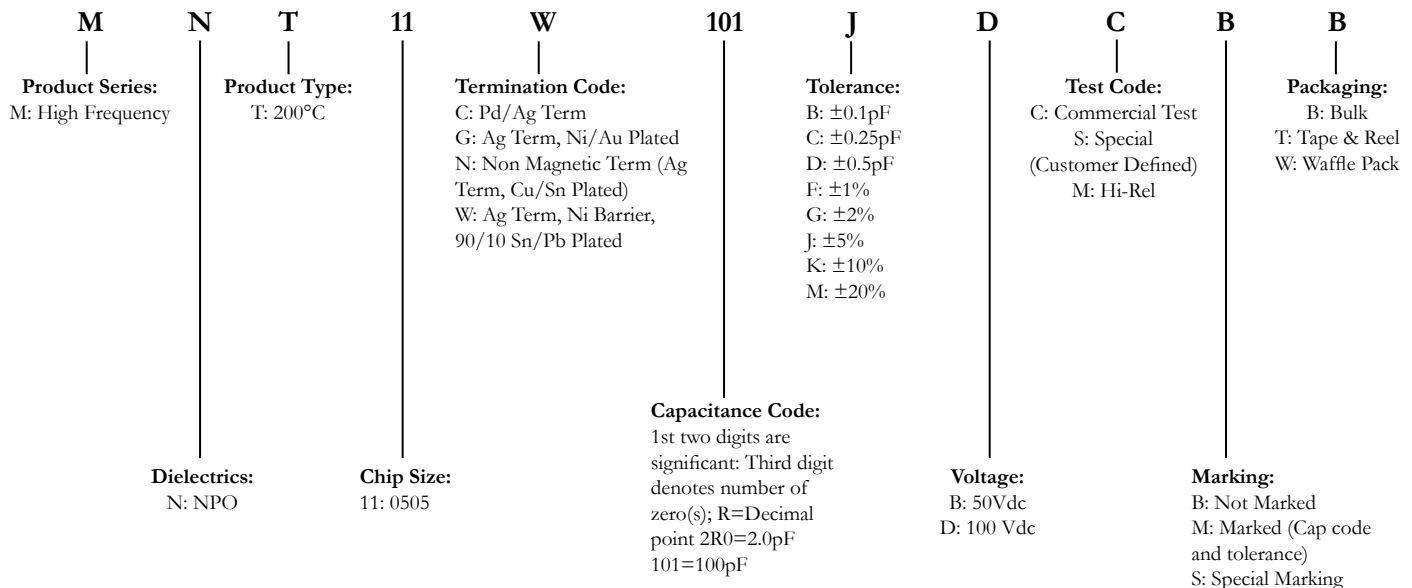


MNT11 series is high temperature RF/Microwave capacitors incorporating an ultra-stable COG (NPO) dielectric system. These capacitors are designed for continuous operating at 200°C, are low loss, high insulation resistance, and exhibit little change in capacitance over the operating temperature range. The MNT11 Series is available with 100V with a rating up to 470pF and a 50V rating up to 1000pF. This Series can be supplied compliant to the EU's **RoHS** standard.

Applications

Typical Functional Applications: Bypass, Coupling, Tuning, Feedback, Impedance Matching and DC Blocking. Devices such as RF oscillators and precision timing circuits requiring a predictable temperature coefficient are examples of devices utilizing these capacitors.

AFM Part Number Code

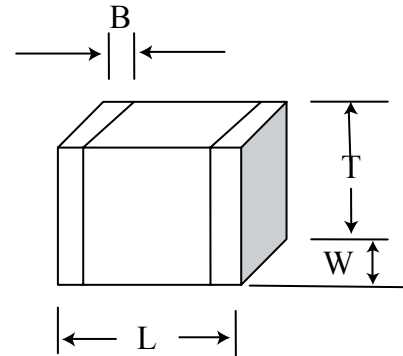


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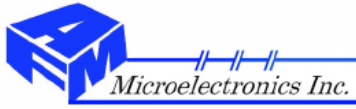
Chip Dimensions

Length	.057in (1.5mm)
Width	.055in (1.4mm)
Thickness	.055in (1.4mm)
Band	.015in (0.38mm)



Standard Capacitance Values

CAP CODE	CAP (pF)	TOL	RATED WVdc	CAP CODE	CAP (pF)	TOL	RATED WVdc	CAP CODE	CAP (pF)	TOL	RATED WVdc	CAP CODE	CAP (pF)	TOL	RATED WVdc
0R1	0.1	B	100	2R4	2.4	B, C, D	100	200	20	F, G, J, K, M	100	151	150	F, G, J, K, M	100
0R2	0.2			2R7	2.7			220	22			161	160		
0R3	0.3	B, C		3R0	3.0			240	24			181	180		
0R4	0.4			3R3	3.3			270	27			201	200		
0R5	0.5	B, C, D		3R6	3.6			300	30			221	220		
0R6	0.6			3R9	3.9			330	33			241	240		
0R7	0.7			4R3	4.3			360	36			271	270		
0R8	0.8			4R7	4.7			390	39			301	300		
0R9	0.9			5R1	5.1			430	43			331	330		
1R0	1.0			5R6	5.6			470	47			361	360		
1R1	1.1		6R2	6.2	510	51	391	390							
1R2	1.2		6R8	6.8	560	56	431	430							
1R3	1.3		B, C, D	7R5	7.5	620	62	471	470						
1R4	1.4			8R2	8.2	680	68	511	510						
1R5	1.5	B, C, D	9R1	9.1	750	75	561	560							
1R6	1.6		100	10	820	82	621	620							
1R7	1.7		110	11	910	91	681	680							
1R8	1.8		120	12	101	100	751	750							
1R9	1.9		130	13	111	110	821	820							
2R0	2.0		150	15	121	120	911	910							
2R1	2.1		160	16	131	130	102	1000							
2R2	2.2		180	18											



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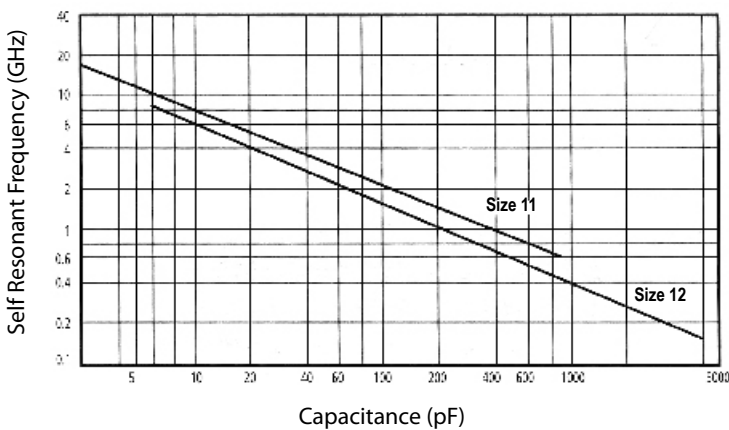
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Specification and Performance

Piezoelectric and Aging Effects:	None
Temperature Range:	-55°C to +200°C
Temperature Coefficient of Capacitance:	0±30ppm/°C
Quality Factor (Q):	≤100pF at 1MHz >10k >100pF at 1MHz >2k
Insulation Resistance (IR, at Rated Voltage):	>10 ⁵ MΩ at 25°C >10 ⁴ MΩ at 200°C
Dielectric Withstand Voltage (DWV):	250% of Rated Voltage
Capacitance Drift:	±0.02% or 0.02 pF

Performance Curve

Self Resonant Frequency vs. Capacitance



Q vs. Temperature

