

## Features

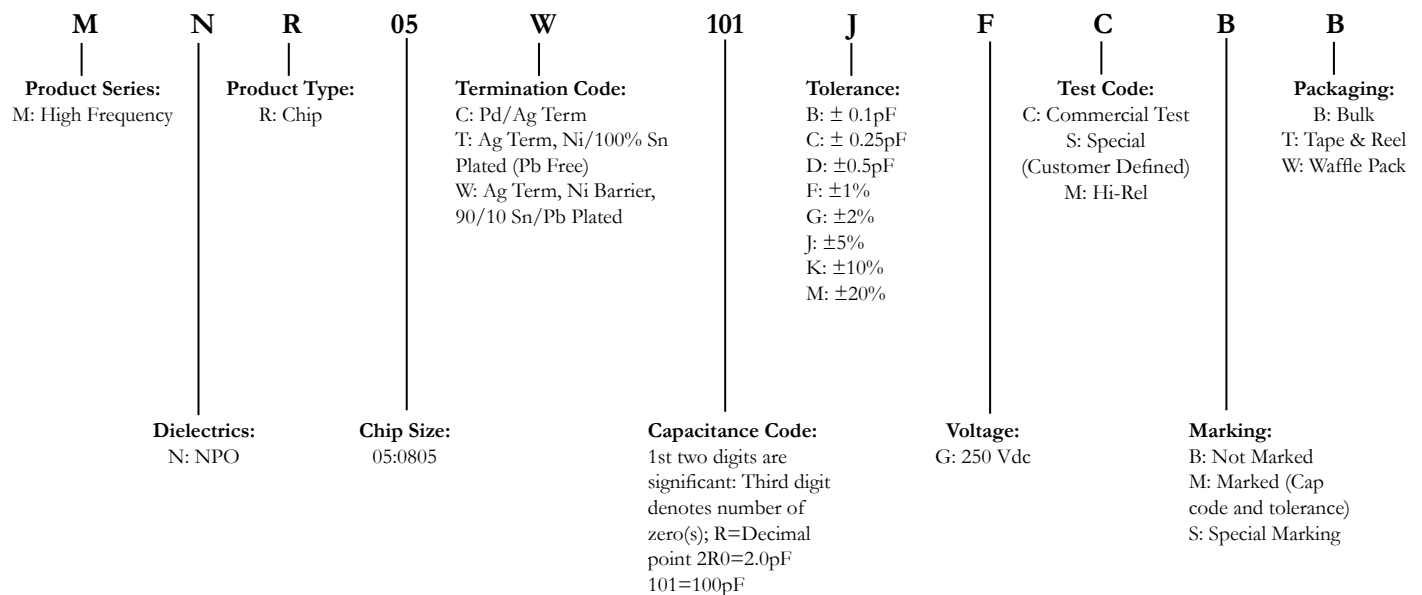
- Capacitance Range: 0.1pF to 240pF
- High Q Low ESR/ESL
- High Power
- Ultra Stable Performance
- High Self-Resonance
- Operating Voltages
  - DC Voltage: 250Vdc



## Applications

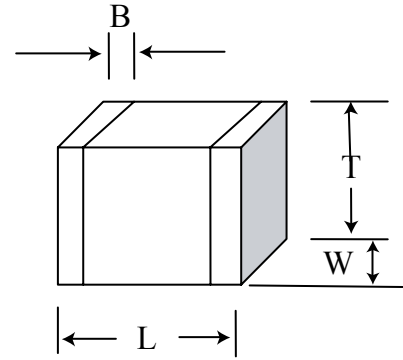
Typical Functional Applications: Bypass, Coupling, Tuning, Feedback, Impedance Matching and DC Blocking. Devices such as RF oscillators and precision timing circuits requiring a predictable temperature coefficient are examples of devices utilizing these capacitors.

## AFM Part Number Code



## Chip Dimensions

Length	.080±.010in (2.00±0.25mm)
Width	.050±.010in (1.20±0.25mm)
Thickness	.057in (1.45mm)
Band	.015in (0.38mm)



## Standard Capacitance Values

CAP CODE	CAP (pF)	TOL	WVDC V	CAP CODE	CAP (pF)	TOL	WVDC V	CAP CODE	CAP (pF)	TOL	WVDC V
0R1	0.1	A, B	250	3R3	3.3	B, C, D	250	300	30	F, G, J, K, M	250
0R2	0.2			3R6	3.6			330	33		
0R3	0.3	3R9		3.9	360			36			
0R4	0.4	4R3		4.3	390			39			
0R5	0.5	4R7		4.7	430			43			
0R6	0.6	A, B, C		5R1	5.1			470	47		
0R7	0.7			5R6	5.6	510		51			
0R8	0.8			6R2	6.2	560		56			
0R9	0.9	A, B, C, D		6R8	6.8	620		62			
1R0	1.0			7R5	7.5	680		68			
1R1	1.1			8R2	8.2	750		75			
1R2	1.2			9R1	9.1	820		82			
1R3	1.3		B, C, J, K	100	10	910	91				
1R5	1.5			110	11	101	100				
1R6	1.6		F, G, J, K, M	120	12	111	110				
1R8	1.8			150	15	121	120				
2R0	2.0			180	18	151	150				
2R2	2.2			200	20	181	180				
2R4	2.4	220		22	201	200					
2R7	2.7	240		24	221	220					
3R0	3.0	270	27	241	240						

### Specification and Performance

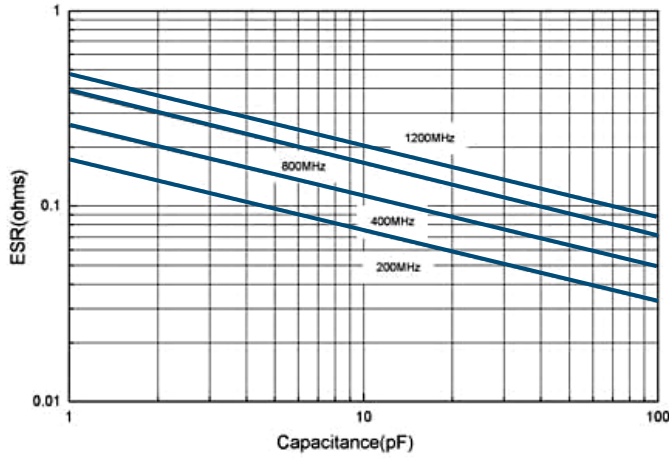
Piezoelectric and Aging Effect:	None
Temperature Range:	-55°C to +125°C
Temperature Coefficient of Capacitance:	+20~+70ppm/°C
Quality Factor (Q) :	>10,000 at 1MHz
Insulation Resistance (IR, at Rated Voltage):	10 <sup>6</sup> MΩ min. at +25°C at rated WVDC 10 <sup>5</sup> MΩ min. at +125°C at rated WVDC
Dielectric Withstand Voltage (DWV):	250% of rated WVDC for 5 secs
Capacitance Drift:	±0.02% or ±0.02pF, whichever is greater

### Environmental Tests

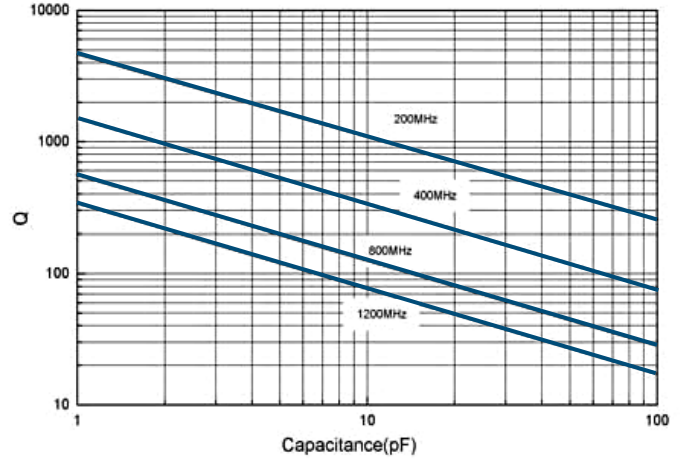
Item	Specifications	Method
Thermal Shock	DWV: the initial value IR: shall be not less than 30% the initial value Capacitance Change: no more than 0.5% or 0.5pF	MIL-STD-202, Method 107, Condition A. At the maximum rated temperature (-55°C and +125°C) stay 30 minutes, the time of removing shall be not more than 3 minutes. Perform the five cycles.
Moisture Resistance		MIL-STD-202, Method 106
Humidity (steady state)	DWV: the initial value IR: the initial value Capacitance Change: no more than 0.3% or 0.3pF	MIL-STD-202, Method 103, Condition A, with 1.5 volts D.C. applied while subjected to an environment of 85°C with 85% relative humidity for 240 hours min.
Life	IR: shall be not less than 30% the initial value Capacitance Change: no more than 0.2%	MIL-STD-202, Method 108, for 2000 hours, at 125°C. 200% Rated Voltage D.C. applied.

## Performance Curve

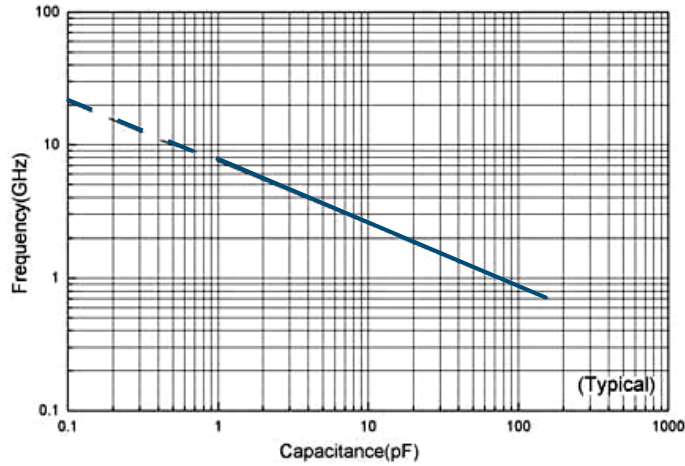
ESR vs.Capacitance



Q vs.Capacitance



Resonance vs.Capacitance



Current Rating vs.Capacitance

