

# N Series Crystal



- Industry Standard Package
- RoHS Compliant Available
- Resistance Weld



Frequency Range	3.200MHz to 91.730MHz
Frequency Tolerance / Stability	(See Part Number Guide for Options)
Operating Temperature Range	(See Part Number Guide for Options)
Storage Temperature	-55°C to +125°C
Aging	±5ppm / first year max
Shunt Capacitance	7pF Max
Load Capacitance	(See Part Number Guide for Options)
Equivalent Series Resistance	See ESR Chart
Mode of Operation	Fundamental, or 3 <sup>rd</sup> OT
Drive Level	1mW Max

## Environmental & Mechanical Detail

Shock	MIL-STD-883, Method 2002 Cond B
Solderability	MIL-STD-883, Method 2003
Solvent Resistance	MIL-STD-202, Method 215
Vibration	MIL-STD-883, Method 2007, Cond A
Gross Leak Test	MIL-STD-883, Method 1014, Cond C
Fine Leak Test	MIL-STD-883, Method 1014, Cond A2
MSL	Level 1 per IPC/JEDEC J-STD 20

## Marking Detail

Line 1: MXX.XXX
XX.XXX = Frequency in MHz
Line 2: SYMCCL or SSYMCL
S or SS = Internal Code
YM = Date Code (Year/Month)
CC = Crystal Parameters Code
L = Denotes RoHS Compliant

**QUALITY SYSTEM  
CERTIFIED  
= ISO 9001 =**

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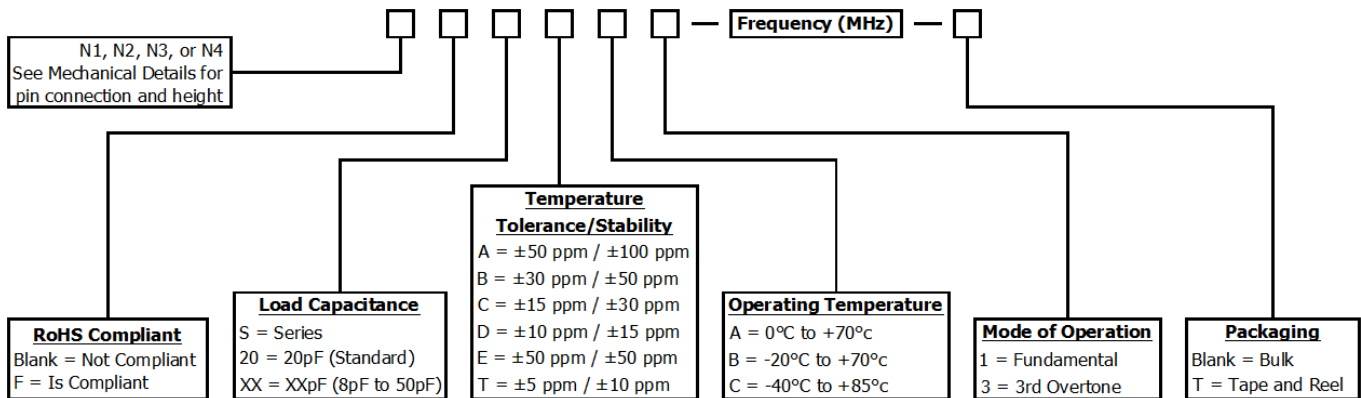


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# ESR Chart

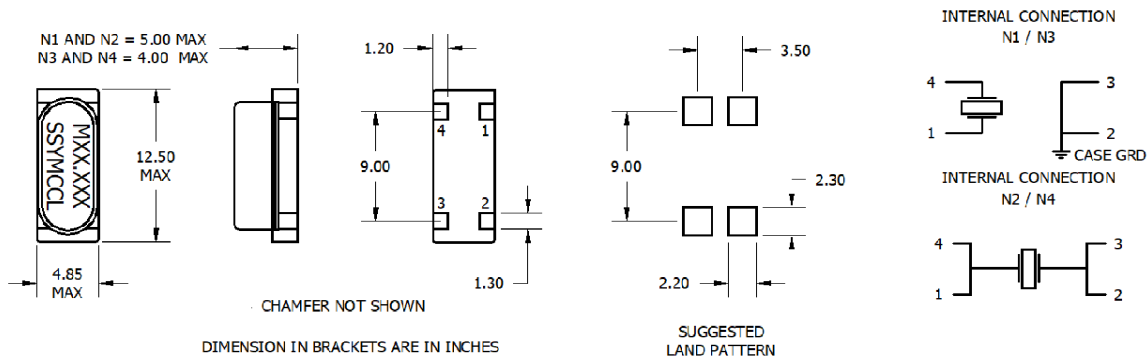
Frequency Range	ESR (Ohms)	Mode / Cut
3.200MHz to 4.999MHz	200 Max	Fund / AT
5.000MHz to 5.999MHz	150 Max	Fund / AT
6.000MHz to 7.999MHz	120 Max	Fund / AT
8.000MHz to 8.999MHz	90 Max	Fund / AT
9.000MHz to 9.999MHz	80 Max	Fund / AT
10.000MHz to 16.999MHz	50 Max	Fund / AT
17.000MHz to 24.999MHz	40 Max	Fund / AT
25.000MHz to 40.000MHz	25 Max	Fund / AT
24.000MHz to 34.999MHz	100 Max	3 <sup>rd</sup> OT / AT
35.000MHz to 59.999MHz	80 Max	3 <sup>rd</sup> OT / AT
60.000MHz to 91.730MHz	60 Max	3 <sup>rd</sup> OT / AT

## Part Number Guide



Please Consult with MMD Sales Department for any other Parameters or Options

## Mechanical Details



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