

# J Series Crystal



- 5mm X 3.2mm X 4 Pads Ceramic Package
- Wide Frequency Range
- Tight Tolerance and Stability
- Tape and Reel Packaging Available



Frequency Range	8.000MHZ to 50.000MHZ
Frequency Tolerance / Stability	(See Part Number Guide for Options)
Operating Temperature Range	(See Part Number Guide for Options)
Storage Temperature	-40°C to +85°C
Aging	±3ppm per year max
Shunt Capacitance	7pF Max
Load Capacitance	(See Part Number Guide for Options)
Equivalent Series Resistance	See ESR Chart
Mode of Operation	Fundamental
Drive Level	100µW Typical
Insulation Resistance	500 Megaohms Min at 100VDC

## 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
S = Internal Code
YM = Date Code (Year/Month)
CC = Crystal Parameters Code
L = Denotes RoHS Compliant

**QUALITY SYSTEM  
CERTIFIED  
= ISO 9001 =**

**MMD MONITOR/QUARTZEK – An ILSI Company,**  
5458 Louie Lane, Reno, NV 89511  
Phone: (775) 851-8880, [www.mmdcomp.com](http://www.mmdcomp.com)

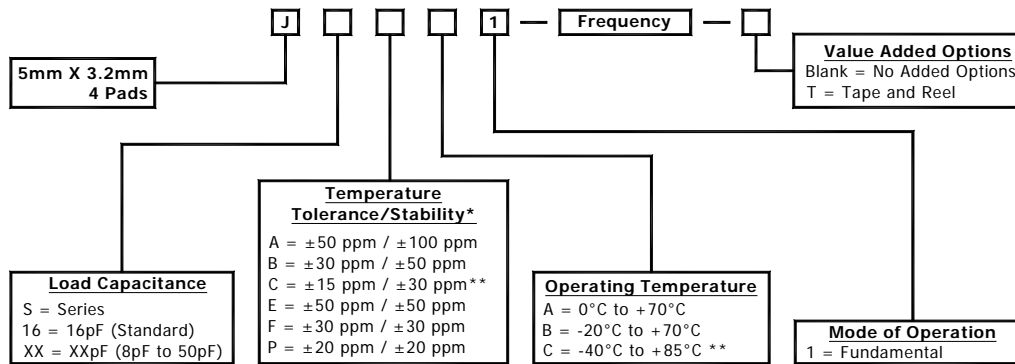


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# ESR Chart

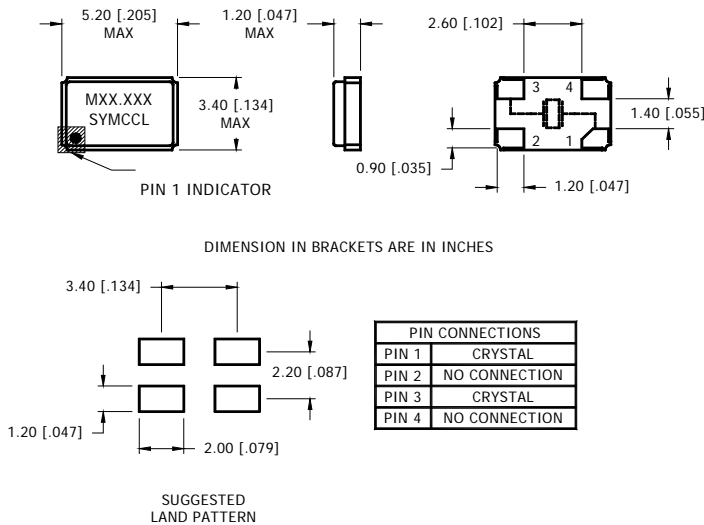
Frequency Range	ESR (Ohms)	Mode / Cut
8.000MHz to 12.000MHz	70 Max	Fund / AT
12.000MHz to 16.000MHz	70 Max	Fund / AT
16.000MHz to 30.000MHz	60 Max	Fund / AT
30.000MHz to 50.000MHz	40 Max	Fund / AT

## Part Number Guide

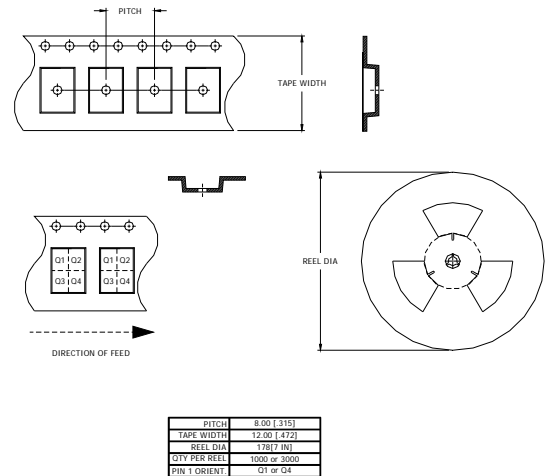


\* Please consult with MMD sales department for any other parameters or options.  
 \*\* Not all Frequency Tolerance/Stability options available at this temperature range.

## Mechanical Details



## Tape & Reel



NOTES: UNLESS OTHERWISE SPECIFIED  
 1. Applicable Standards / Specifications  
 ANSI Y14.5M, Dimensions and Tolerances  
 EIA-481-B, 8 mm through 200mm Embossed Carrier Taping and 8 mm and 12 mm Punched Carrier Taping of Surface Mount Components for Automatic Handling.  
 2. Dimensions are in millimeters.  
 3. Tolerances are ±0.10 [.004] mm unless otherwise specified.  
 4. Do not scale drawing.

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