

# I Series Crystal



- 6.0mm x 3.5 mm 2 Pads Ceramic Package
- Tight Tolerance and Stability
- Wide Frequency Range
- Tape and Reel Packaging



Frequency Range	10.000MHZ to 80.000MHZ
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	±5ppm per year max
Shunt Capacitance	7pF max
Load Capacitance	20pF Standard (See Part Number Guide for Options)
Equivalent Series Resistance	See ESR Chart
Mode of Operation	Fundamental / 3 <sup>rd</sup> OT
Drive Level	100µW max
Insulation Resistance	500 M ohms min at 100VDC ±15VDC

## ESR Chart

Frequency Range	ESR (Ohms)	Mode / Cut
10.000MHZ to 10.999MHZ	100 max	Fund / AT
11.000MHZ to 11.999MHZ	80 max	Fund / AT
12.000MHZ to 15.999MHZ	60 max	Fund / AT
16.000MHZ to 39.999MHZ	40 max	Fund / AT
40.000MHZ to 80.000MHZ	70 max	3 <sup>rd</sup> OT/ AT

## 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



**MMD Monitor/Quartztek**  
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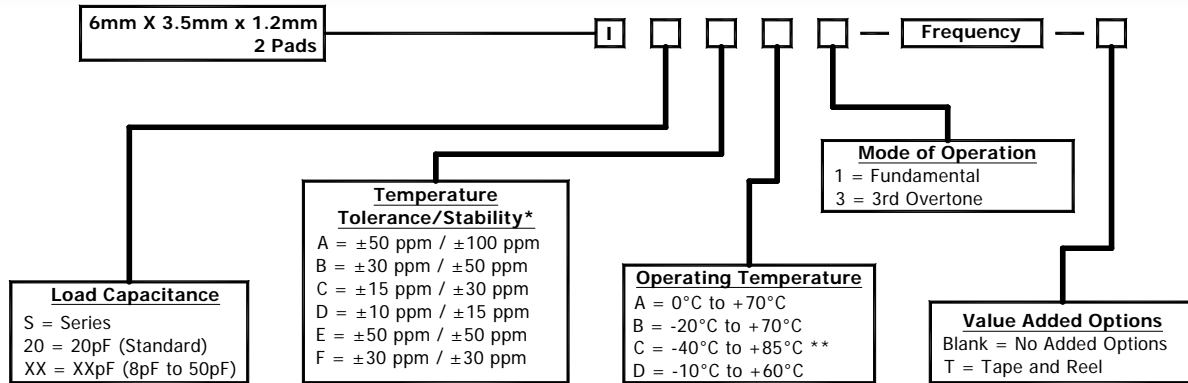


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Specifications are subject to change without notice.

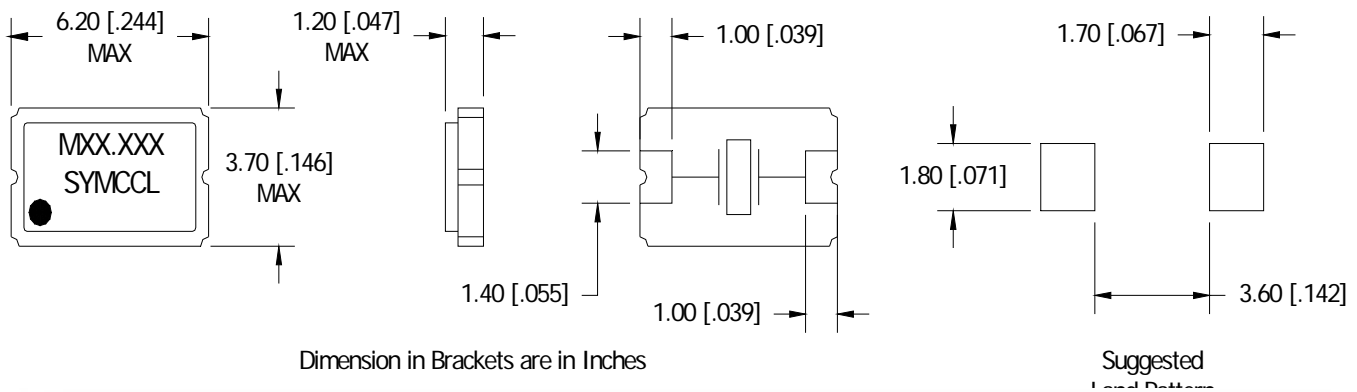
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## Part Number Guide

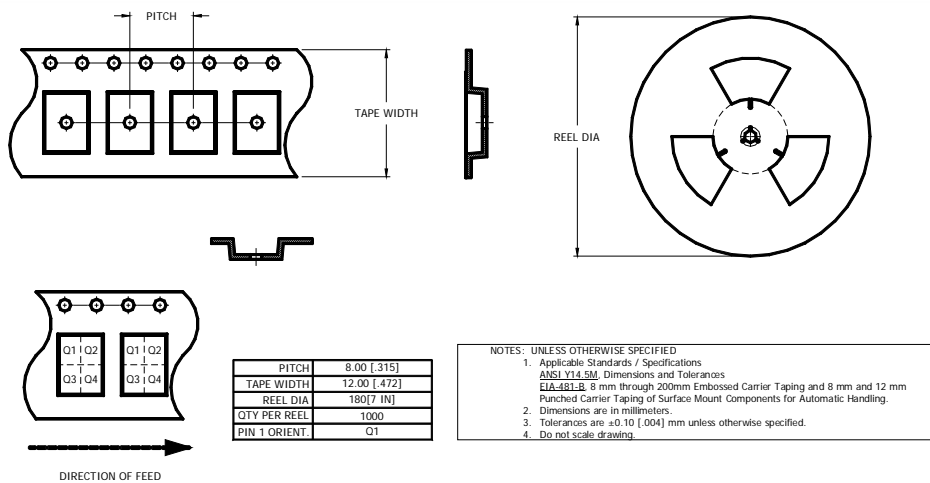


\* Please consult with MMD sales department for any other parameters or options.  
\*\* Not all Frequency Tolerance/Stability options available at this temperature range.

## Mechanical Details



## Tape & Reel



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