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 Maximum
Shunt Capacitance	7pF Maximum
Load Capacitance	(See Part Number Guide for Options)
Equivalent Series Resistance	See ESR Chart
Mode of Operation	Fundamental / 3rd Overtone
Drive Level	100µWatts Maximum
Insulation Resistance	500 Megaohms Minimum at 100Vdc

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	3rd 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 or SSYMCCL
S or SS = 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
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Phone: (775) 851-8880, www.mmdcomp.com

RoHS Compliant Lead Free

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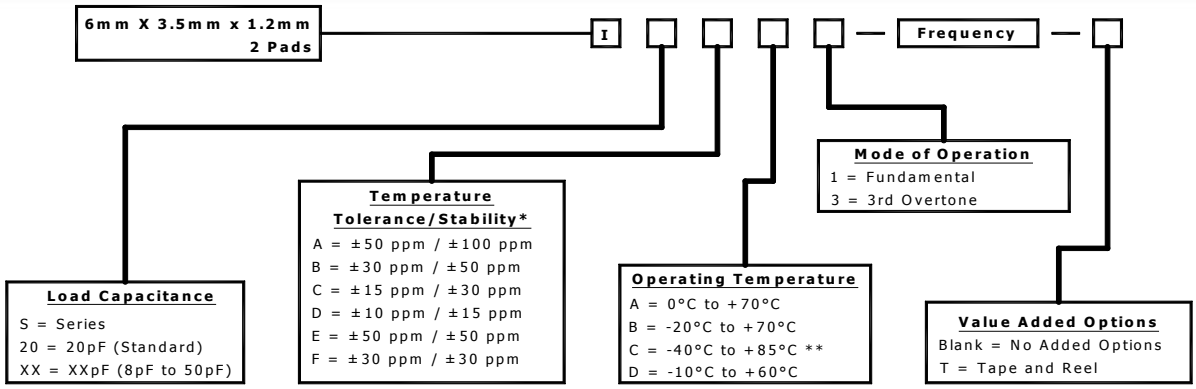
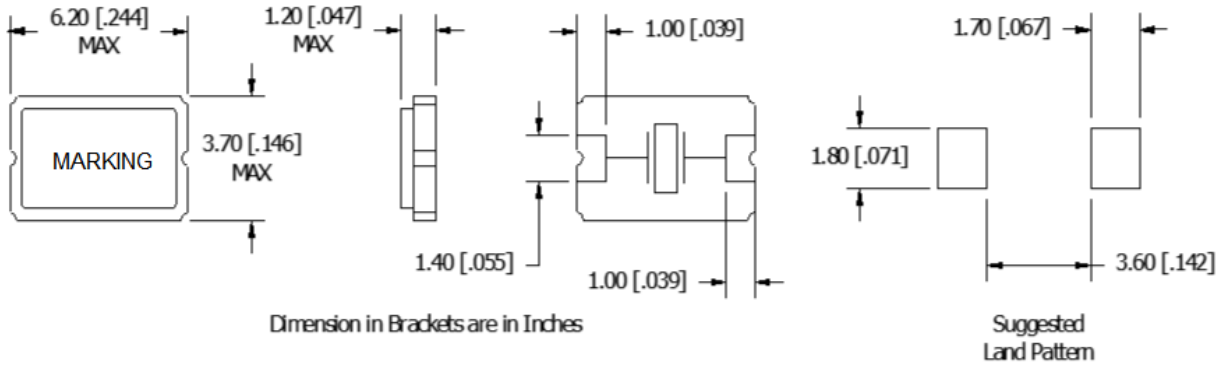
Part Number Guide

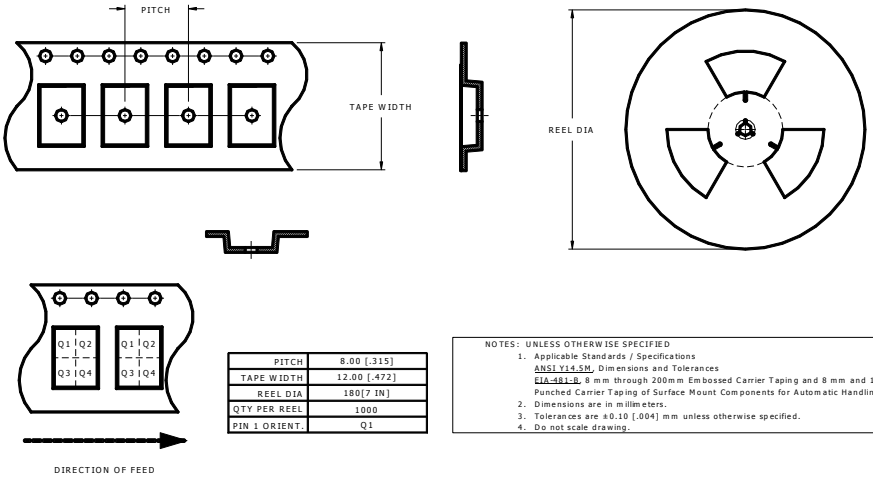


* Please consult with MMD sales department for any other parameters or options.
** Not all Frequency Tolerance/Stability options available at this temperature range.

Mechanical Details



Tape & Reel



PITCH	8.00 [.315]
TAPE WIDTH	12.00 [.472]
REEL DIA	180[7 IN]
QTY PER REEL	1000
PIN 1 ORIENT.	Q1

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.

QUALITY SYSTEM CERTIFIED = ISO 9001 =

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