

# H Series Crystal



- 6.0mm x 3.5 mm x 1.2mm Ceramic Package
- Tight Tolerance and Stability
- Wide Frequency Range
- Tape and Reel Packaging



## ELECTRICAL SPECIFICATIONS:

|                                 |  |
|---------------------------------|--|
| Frequency Range                 | 8.000MHZ to 100.000MHZ                               |
| 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<br>(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                      |
| Shock                           | MIL-STD-883, Meth 2002, Cond B                       |
| Solderability                   | MIL-STD-883, Meth 2003                               |
| Solvent Resistance              | MIL-STD-202, Meth 215                                |
| Vibration                       | MIL-STD-883, Meth 2007, Cond A                       |
| Gross Leak Test                 | MIL-STD-883, Meth 1014, Cond C                       |
| Fine Leak Test                  | MIL-STD-883, Meth 1014, Cond A                       |

## ESR CHART:

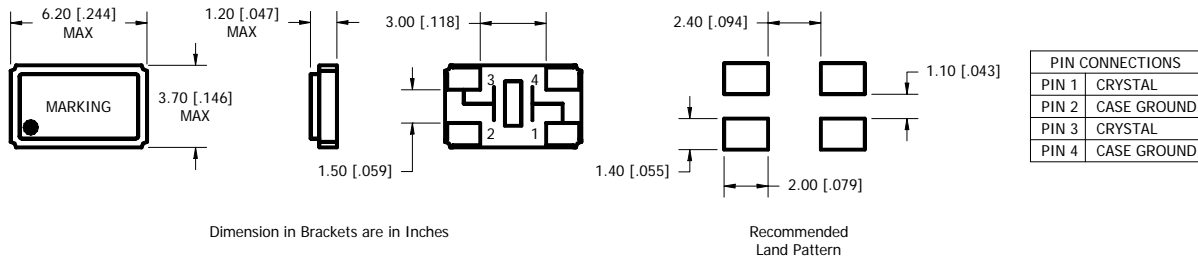
| Frequency Range         | ESR (Ohms) | Mode / Cut             |
|-------------------------|------------|------------------------|
| 8.000MHZ to 10.999MHZ   | 100 max    | Fund / AT              |
| 11.000MHZ to 11.999MHZ  | 80 max     | Fund / AT              |
| 12.000MHZ to 15.999MHZ  | 60 max     | Fund / AT              |
| 16.000MHZ to 39.999MHZ  | 40 max     | Fund / AT              |
| 40.000MHZ to 100.000MHZ | 70 max     | 3 <sup>rd</sup> OT/ AT |

## MARKING:

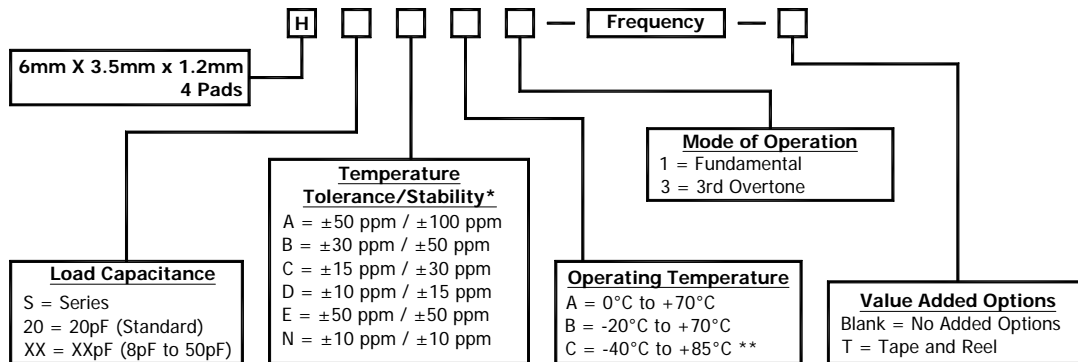
Line 1: MXX.XXX  
XX.XXX = Frequency in MHz

Line 2: SYMCLL  
S = Internal Code  
YM = Date Code (Year/Month)  
CC = Crystal Parameters Code  
L = Denotes RoHS Compliant

## MECHANICALS DETAIL:



## 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.

**MMD Components**, 30400 Esperanza, Rancho Santa Margarita, CA, 92688  
 Phone: (949) 709-5075, Fax: (949) 709-3536, [www.mmdcomp.com](http://www.mmdcomp.com)  
 Sales@mmdcomp.com