J Series Crystal

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

ELECTRICAL SPECIFICATIONS:

Frequency Range	10.000MHZ 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
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:

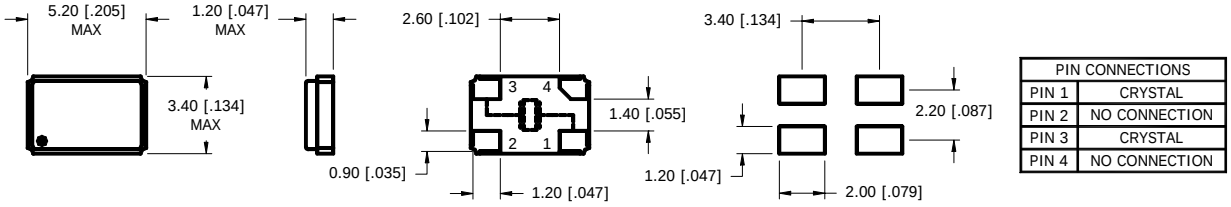
Frequency Range	ESR (Ohms)	Mode / Cut
10.000MHz to 12.000MHz	70 Max	Fund / AT
12.000MHz to 16.000MHz	70 Max	Fund / AT
16.000MHz to 30.000MHz	60 Max	Fund / AT
30.000MHz to 50.000MHz	40 Max	Fund / AT

MARKING:

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

MECHANICALS DETAIL:



PIN CONNECTIONS	
PIN 1	CRYSTAL
PIN 2	NO CONNECTION
PIN 3	CRYSTAL
PIN 4	NO CONNECTION

DIMENSION IN BRACKETS ARE IN INCHES

RECOMMENDED LAND PATTERN

PART NUMBER GUIDE:

J [ ] [ ] [ ] 1 — Frequency — [ ]

5mm X 3.2mm x 1.2mm 4 Pads

Load Capacitance
S = Series
16 = 16pF (Standard)
XX = XXpF (8pF to 50pF)

Temperature Tolerance/Stability*
A = ±50 ppm / ±100 ppm
B = ±30 ppm / ±50 ppm
C = ±15 ppm / ±30 ppm**
E = ±50 ppm / ±50 ppm
F = ±30 ppm / ±30 ppm

Operating Temperature
A = 0°C to +70°C
B = -20°C to +70°C
C = -40°C to +85°C **

Mode of Operation
1 = Fundamental

Value Added Options
Blank = No Added Options
T = Tape and Reel

* Please consult with MMD sales department for any other parameters or options.
** Not all Frequency Tolerance/Stability options available at this temperature range.
*** Not available in the 20MHZ - 40MHZ range.

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