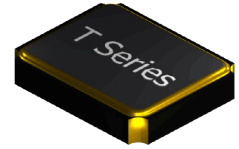


# T Series Crystal



- **3.2mm X 2.5mm SMD**
- **Wide Frequency Range**
- **RoHS Compliant**
- **Tight Tolerance and Stability**



Frequency Range	12.000MHz to 54.000MHz
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 / first year Maximum
Shunt Capacitance	5pF Maximum
Load Capacitance	(See Part Number Guide for Options)
Equivalent Series Resistance (ESR)	See ESR Chart
Drive Level	10µW Typical / 100µW Maximum
Insulation Resistance	500 Megaohms Minimum at 100Vdc

## ESR Chart

Frequency Range	ESR (Ohms)	Mode / Cut
12.000MHz to 19.999MHz	100 Max	Fund / AT
20.000MHz to 29.999MHz	80 Max	Fund / AT
30.000MHz to 54.000MHz	50 Max	Fund / 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

First Line = MXX.XXX		
M	=	MMD
XX.XXX	=	Device Frequency
Second Line = SYYWW or SSYYWW		
S or SS	=	Internal Code
YYWW	=	Date Code (Year/Week)

**QUALITY SYSTEM  
CERTIFIED  
= ISO 9001 =**

**MMD MONITOR/QUARTZEK – An ILSI Company**  
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