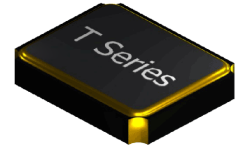


T Series Crystal



- **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) |

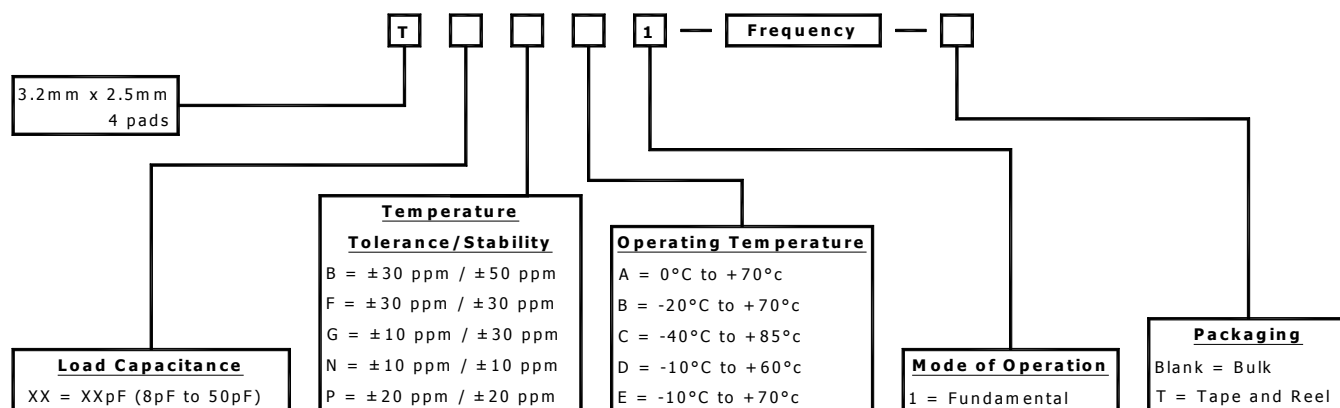
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5458 Louie Lane, Reno, NV 89511
Phone: (775) 851-8880, www.mmdcomp.com



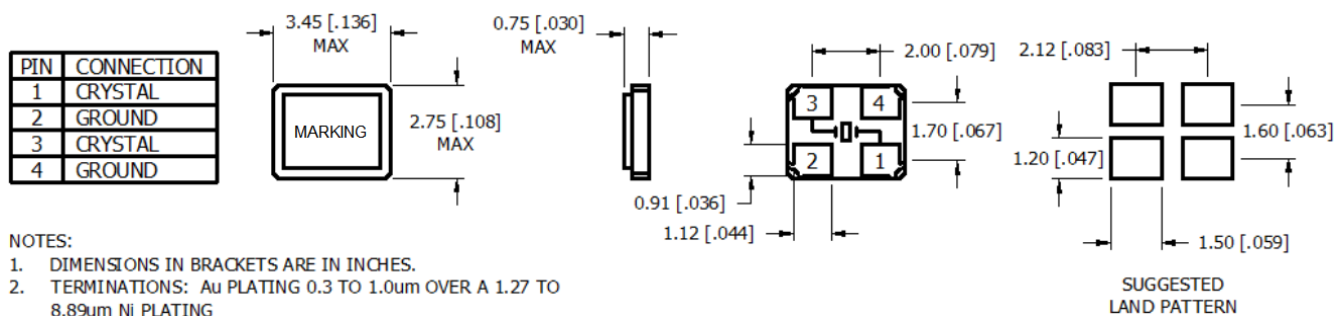
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Part Number Guide

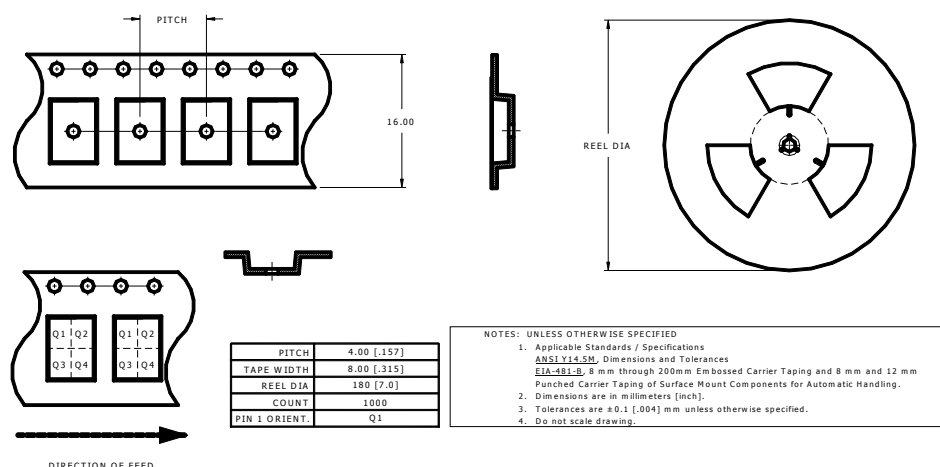


Please Consult with MMD Sales Department for any other Parameters or Options

Mechanical Details



Tape and Reel



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Specifications are subject to change without notice.