

SPECIFICATION FOR RoHS 6 COMPLIANT SMD CRYSTAL
MtronPTI P/N: M1253S162

Electrical Specifications:

| Parameter | Symbol | Min. | Typ. | Max. | Units | Conditions |
|-----------------------|----------------|----------------------|-----------|------|--------|------------------------------------|
| Mode of Oscillation | | Fundamental (AT-Cut) | | | | |
| Frequency | F ₀ | | 24.000000 | | MHz | |
| Frequency Tolerance | F/F | -15 | | +15 | ppm | @ 25°C |
| Frequency Stability | ΔF/F | -15 | | +15 | ppm | Reference to the Frequency at 25°C |
| Operating Temperature | T _A | -30 | | +85 | °C | |
| Storage Temperature | T _S | -55 | | +125 | °C | |
| Aging | F _A | -5 | | +5 | ppm/yr | @ 25°C |
| Load Capacitance | C _L | | 20 | | pF | |
| Shunt Capacitance | C ₀ | | | 3 | pF | |
| ESR | | | | 70 | Ω | |
| Drive Level | D _L | 10 | 100 | 300 | μW | |
| Insulation Resistance | I _R | 500 | | | M Ω | DC100V |

Environmental Conditions:

| | |
|---------------------------|---|
| Mechanical Shock | Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave) |
| Vibration | Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz) |
| Thermal Cycle | Per MIL-STD-883, Method 1010, B (-55°C to 125°C, 15 min. dwell, 10 cycles) |
| Hermeticity | Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of Helium) |
| Gross Leak | Per MIL-STD-202, Method 112 (30 sec. Immersion) |
| Fine Leak | Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of Helium) |
| Resistance to Solvents | Per MIL-STD-883, Method 2015 |
| Solderability | Per EIAJ-STD-002 |
| Max. Soldering Conditions | See solder profile, Figure 1 |

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Mechanical, Marking and Layout Information:

| Part Marking | |
|--------------|----------|
| Line 1 | 24M000 |
| Line 2 | M Y WW V |

| Legend | |
|--------|-----------|
| M | MtronPTI |
| F | Frequency |
| Y | Year |
| WW | Week |
| V | Vendor |

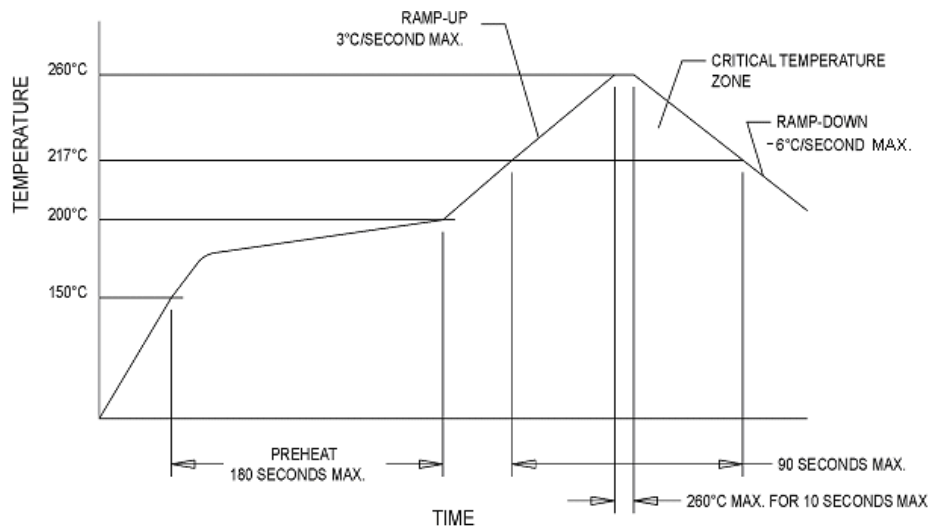
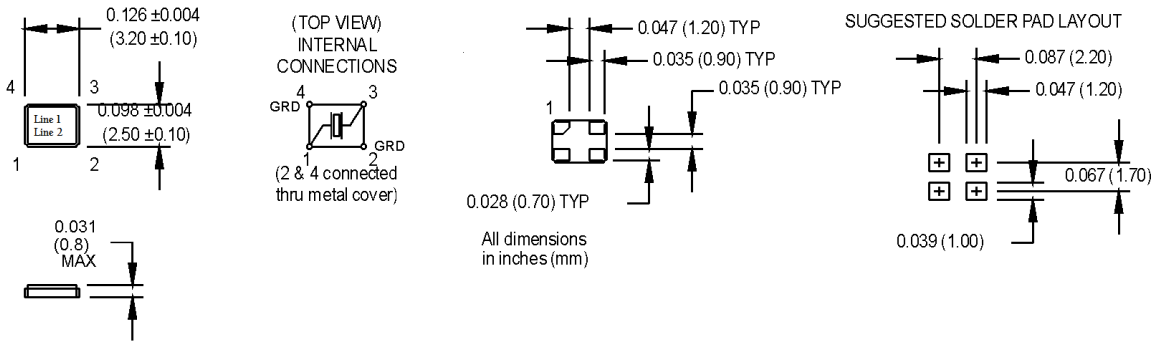


Figure 1

Datasheet Revision Table:

| Date | Rev. | Author | Details of Revision |
|----------|------|--------|---------------------|
| 05/23/13 | 0 | TOY | Original release. |