

SPECIFICATION FOR RoHS 6 COMPLIANT SMT CRYSTAL MtronPTI Part Number M1253S218

Electrical Specifications:

| Parameter | Symbol | Min. | Typ. | Max. | Units | Conditions |
|-----------------------|----------------|----------------------|-----------|------|---------|---------------------------|
| Mode of Oscillation | | Fundamental (AT-Cut) | | | | |
| Frequency | F ₀ | | 48.000000 | | MHz | Nominal Center Frequency |
| Frequency Tolerance | F/F | -30 | | +30 | ppm | @ +25°C |
| Frequency Stability | ΔF/F | -30 | | +30 | ppm | Over operating temp range |
| Aging | | -5 | | +5 | ppm/yr | @ +25°C |
| Load Capacitance | C _L | | 12.5 | | pF | |
| Shunt Capacitance | C ₀ | | | 3 | pF | |
| ESR | | | | 35 | Ω | |
| Drive Level | D _L | 10 | 100 | 300 | μW | |
| Insulation Resistance | I _R | 500 | | | Megohms | 100 VDC |

Environmental Conditions:

| | | | | | | |
|---------------------------|---|-----|--|------|----|--|
| Operating Temperature | T _A | -40 | | +85 | °C | |
| Storage Temperature | T _S | -55 | | +125 | °C | |
| 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) | | | | | |
| Solderability | Per EIAJ-STD-002 | | | | | |
| Max. Soldering Conditions | See solder profile, Figure 1 | | | | | |
| Termination finish | 0.3 to 1.0 micrometers of gold | | | | | |

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Dimensions, Marking, and Pin Out Information:

| Pad | Function |
|-----|----------------|
| 1 | Input / Output |
| 2 | Cover / Ground |
| 3 | Input / Output |
| 4 | Cover / Ground |

| Part Marking | |
|--------------|------------|
| Line 1 | 48M0000 |
| Line 2 | M B y ww v |

| Line 2 Legend | |
|---------------|---------------|
| M | MtronPTI |
| B | Part Series |
| y | Year |
| ww | Work Week No. |
| v | Factory code |

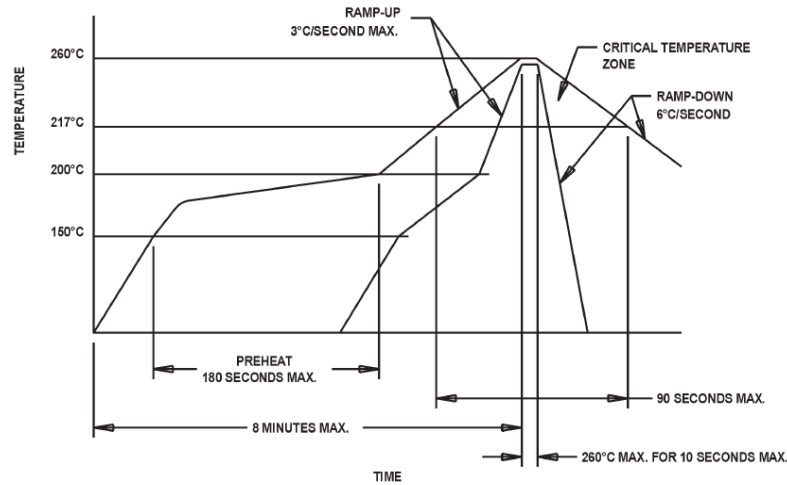
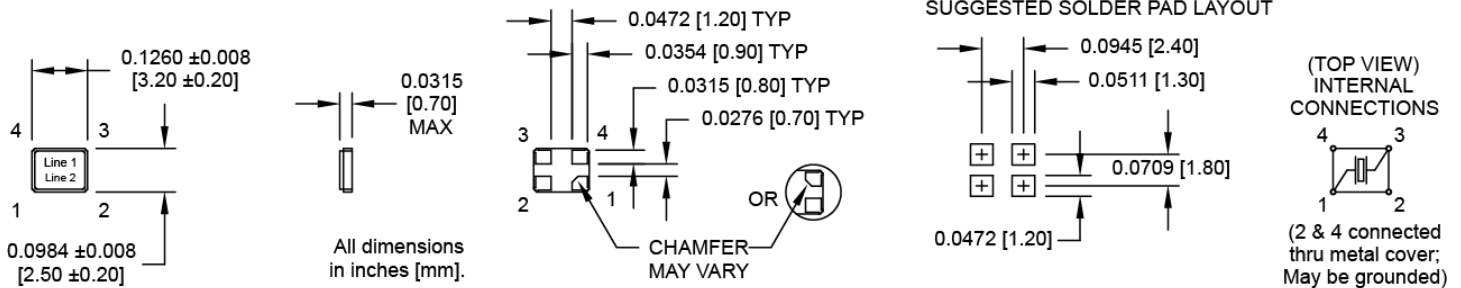


Figure 1

DATA SHEET REVISION TABLE:

| Date | Rev. | Author | Details of Revision |
|----------|------|--------|---------------------|
| 07-24-19 | A | BRR | Preliminary Release |