



SPECIFICATION FOR 1.8V CML SMT TCXO MtronPTI P/N M6302S025

Electrical Specifications:

| Parameter | Symbol | Min. | Typ. | Max. | Units | Conditions |
|---|--------------|------|---------------------------|------|-------|---------------------------|
| Frequency of Operation | F_O | | 125.000000 | | MHz | |
| Frequency Tolerance | | -1.0 | | +1.0 | ppm | @ +25°C |
| Frequency Stability | | | | | | |
| vs. Temperature | $\Delta F/F$ | | | 4.6 | ppm | (Max-Min)/2 |
| vs. Aging | | -3 | | +3 | ppm | 1 st year |
| | | -1 | | +1 | ppm | Per year thereafter. |
| RF Output | | | | | | |
| Output Type | | | CML | | | |
| Output Load | | | 100 Ω Differential | | V | |
| Differential Output Voltage | | 250 | 425 | 500 | mV | CML Load |
| Symmetry (duty cycle) | T_{DC} | 45 | | 55 | % | 50% ($V_{OH} - V_{OL}$) |
| Rise/Fall Time | T_R/T_F | | | 0.35 | nS | From 20% to 80% V_{CC} |
| Supply Voltage & Power Consumption | | | | | | |
| Operating Voltage | V_{CC} | 1.71 | 1.80 | 1.89 | V | |
| Operating Current | I_{CC} | | | 125 | mA | |

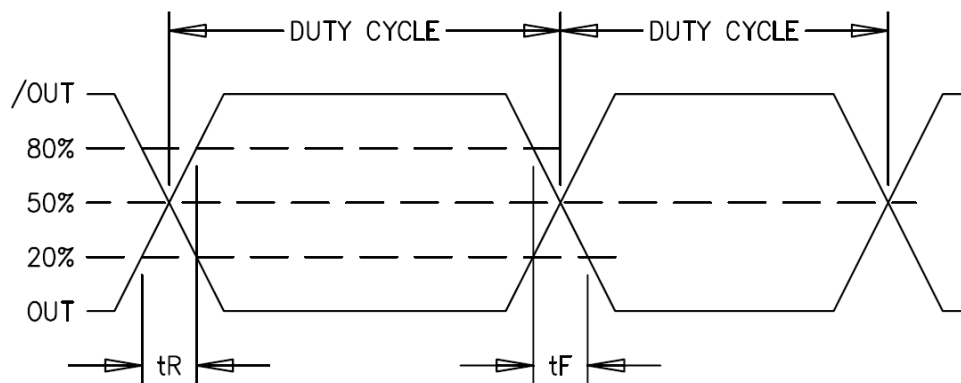
Environmental Conditions:

| Parameter | Symbol | Min. | Typ. | Max. | Units | Conditions |
|----------------------------------|---|------|------|------|-------|------------|
| Operating Temperature | T_A | -55 | | +125 | °C | |
| Storage Temperature | T_S | -55 | | +125 | °C | |
| Shock | Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, 1/2 sinewave) | | | | | |
| Vibration | Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz) | | | | | |
| Thermal Shock | Per MIL-STD-883, Method 1011, Condition A | | | | | |
| Thermal Cycle | Per MIL-STD-883, Method 1010, Condition B | | | | | |
| Hermeticity | Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of helium) | | | | | |
| Moisture Sensitivity Level (MSL) | MSL 1 | | | | | |
| Solderability | Per EIAJ-STD-002 | | | | | |
| Max. Soldering Conditions | See Figure 1. | | | | | |
| Package Type | 6-pad 5.0 X 7.0 X 1.9 mm leadless ceramic. RoHS compliant. | | | | | |

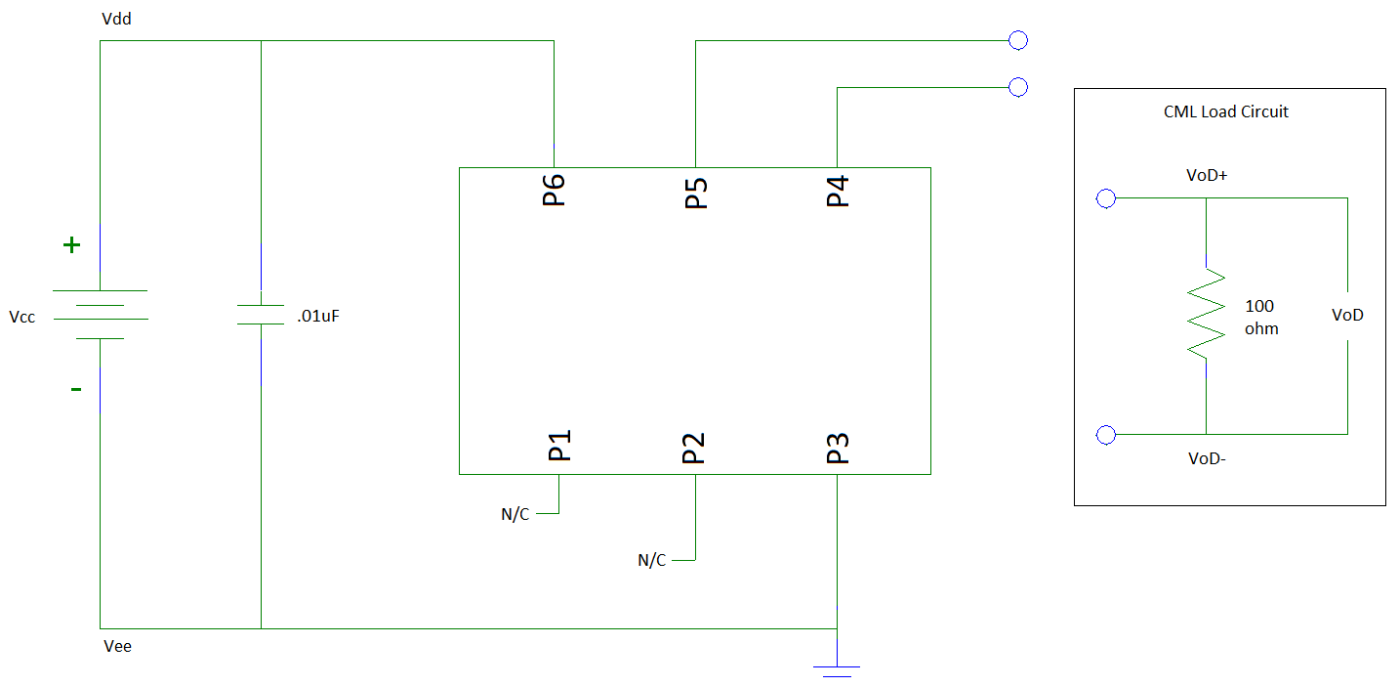


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Output Waveform:



Typical Test Circuit & Load Circuit Diagrams:





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Soldering Conditions:

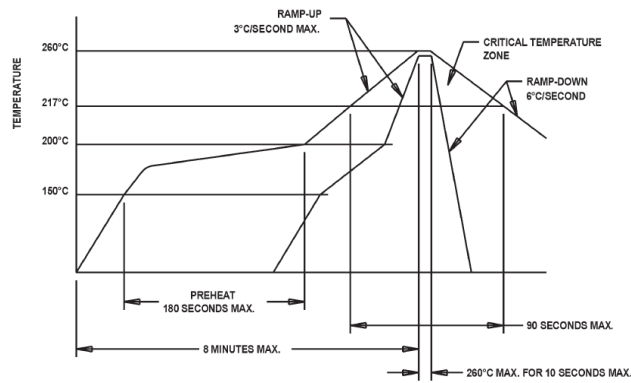
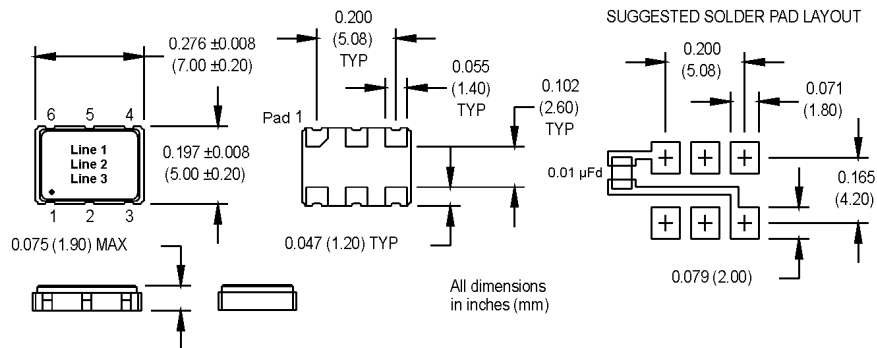


Figure 1

Mechanical, Marking, and Pin Out Information:



Datasheet Revision Table:

| Date | Rev. | Author | Details of Revision |
|----------|------|--------|---------------------|
| 11/15/18 | 0 | MM | Original release. |