

SPECIFICATION FOR SMT TCXO

MtronPTI P/N M6164S041

Electrical Specifications:

| Parameter | Symbol | Min. | Typ. | Max. | Units | Conditions |
|-----------------------------------------------|------------------|------------------------------------------------------------------------|-------------------|-------|--------------------|-----------------------------------------|
| Frequency of Operation | F _O | | 20.000000 | | MHz | |
| Frequency Tolerance | | -1.0 | | +1.0 | ppm | @ +25°C |
| Frequency Stabilities | | | | | | |
| Frequency vs. Temperature | ΔF/F | | | 1.0 | ppm | (F _{MAX} -F _{MIN})/2 |
| Aging | | -5.0 | | +5.0 | ppm | 10 years |
| Frequency vs. Supply | F _{VS} | | ± 0.02 | ± 0.1 | ppm | For 5% voltage change |
| Frequency vs. Load | F _L | | ± 0.02 | ± 0.1 | ppm | For 5% load change |
| Output | | | | | | |
| Output Type | | | Clipped Sine Wave | | | |
| Output Load | | | 10kΩ // 10pF | | | |
| Output Level | V _{OUT} | 0.8 | | | V _{pk-pk} | |
| Tristate Function | | Logic "1", or floating, output Enabled. Logic "0", output Disabled. | | | | Pad 8 |
| Startup Time | T _{SU} | | | 10 | ms | |
| Additional Specifications | | | | | | |
| SSB Phase Noise (Under Static Conditions) | | | -94 | | dBc/Hz | @ 10Hz Offset |
| | | | -123 | | | @ 100Hz Offset |
| | | | -145 | | | @ 1kHz Offset |
| | | | -154 | | | @ 10kHz Offset |
| | | | -156 | | | @ 100kHz Offset |
| G-sensitivity | | | 1.3 | | ppb/g | |
| Supply Voltage & Power Consumption | | | | | | |
| Operating Voltage | V _{DD} | 3.135 | 3.3 | 3.465 | V _{DC} | |
| Operating Current | I _{DD} | | | 4.0 | mA | |

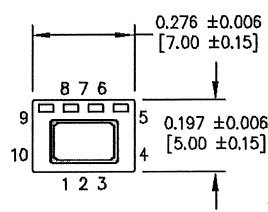
Environmental & Mechanical Requirements:

| | | | | | | |
|---------------------------|--------------------------------------------------------------------------------|-----|--|------|----|--|
| 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 sine wave) | | | | | |
| Vibration | Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz) | | | | | |
| Solderability | Per MIL-STD-202, Method 208, except steam aging is not required | | | | | |
| Max. Soldering Conditions | See solder profile, Figure 1 | | | | | |
| Package Type | 5.0 x 7.0 x 2.0mm, 10-pad Ceramic Leadless Chip Carrier. RoHS Compliant. | | | | | |

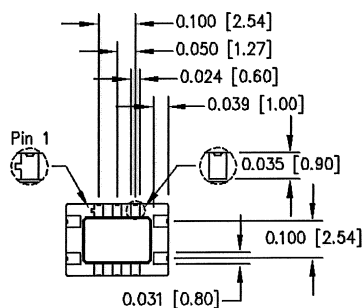
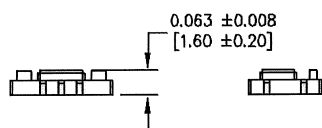
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Mechanical, Marking and Layout Information:

| Pad | Function |
|-----|------------------|
| 1 | N/C |
| 2 | N/C |
| 3 | N/C |
| 4 | Ground/Case |
| 5 | Output |
| 6 | N/C |
| 7 | N/C |
| 8 | Tristate |
| 9 | +V _{DD} |
| 10 | N/C |



All dimensions
in inches [mm].



SUGGESTED SOLDER PAD LAYOUT

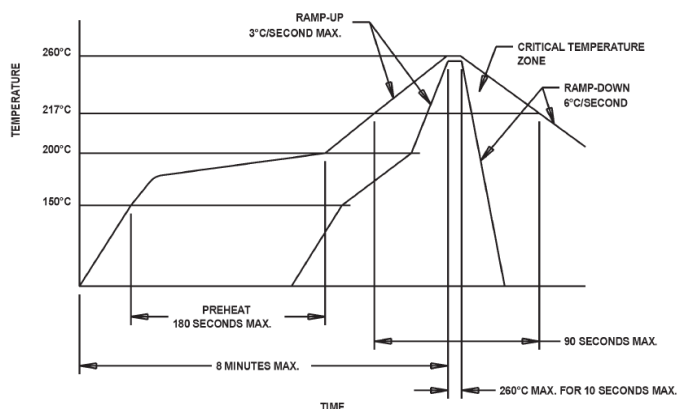
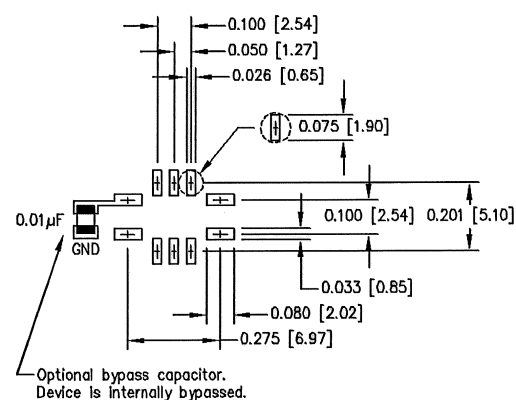


Figure 1

Data Sheet Revision Table:

| Date | Rev. | Author | Details of Revision |
|----------|------|--------|---------------------|
| 05/31/17 | 0 | MM | Original Release. |