



## SPECIFICATION FOR 3.3V LVDS SMT TCXO MtronPTI P/N M6300S124

### Electrical Specifications:

| Parameter                                     | Symbol       | Min.                         | Typ.      | Max.  | Units | Conditions               |
|---|--------------|------------------------------|-----------|-------|-------|--------------------------|
| Frequency of Operation                        | $F_O$        |                              | 25.000000 |       | MHz   |                          |
| Frequency Tolerance                           |              | -1.0                         |           | +1.0  | ppm   | @ +25°C                  |
| <b>Frequency Stability</b>                    |              |                              |           |       |       |                          |
| vs. Temperature                               | $\Delta F/F$ |                              |           | 4.6   | ppm   | (Max-Min)/2              |
| vs. Aging                                     |              | -3                           |           | +3    | ppm   | 1 <sup>st</sup> year     |
|   |              | -1                           |           | +1    | ppm   | Per year thereafter.     |
| <b>RF Output</b>                              |              |                              |           |       |       |                          |
| Output Type                                   |              | Differential LVDS Compatible |           |       |       |                          |
| Output Load                                   |              | 100 $\Omega$ Differential    |           |       | V     |                          |
| Common Mode Output Voltage                    |              |                              | 1.2       |       | V     |                          |
| Differential Output Voltage                   |              | 250                          | 425       | 500   | mV    | LVDS Load                |
| Symmetry (duty cycle)                         | $T_{DC}$     | 45                           |           | 55    | %     | Referenced to 1.2 V      |
| Rise/Fall Time                                | $T_R/T_F$    |                              |           | 0.35  | nS    | From 20% to 80% $V_{CC}$ |
| <b>Supply Voltage &amp; Power Consumption</b> |              |                              |           |       |       |                          |
| Operating Voltage                             | $V_{CC}$     | 3.135                        | 3.3       | 3.465 | V     |                          |
| Operating Current                             | $I_{CC}$     |                              |           | 100   | mA    |                          |

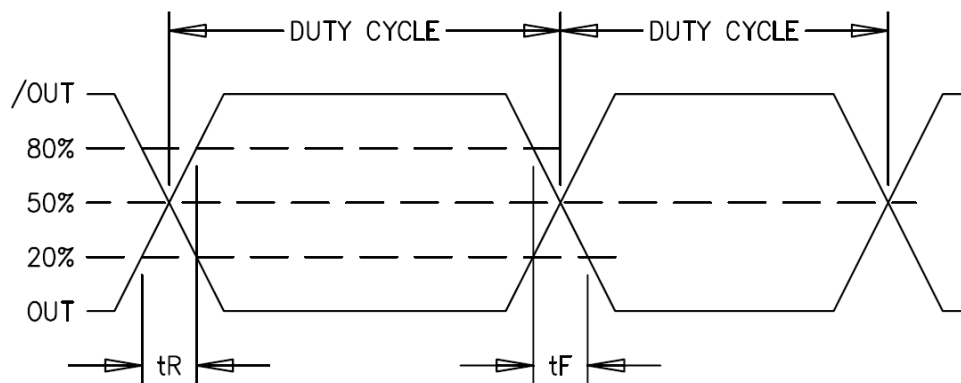
### Environmental Conditions:

| Parameter                        | Symbol  | Min. | Typ. | Max. | Units | Conditions |
|----------------------------------|---|------|------|------|-------|------------|
| Operating Temperature            | T <sub>A</sub>  | -55  |      | +125 | °C    |            |
| Storage Temperature              | T <sub>S</sub>  | -55  |      | +125 | °C    |            |
| 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 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 <sup>-8</sup> 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.                    |      |      |      |       |            |

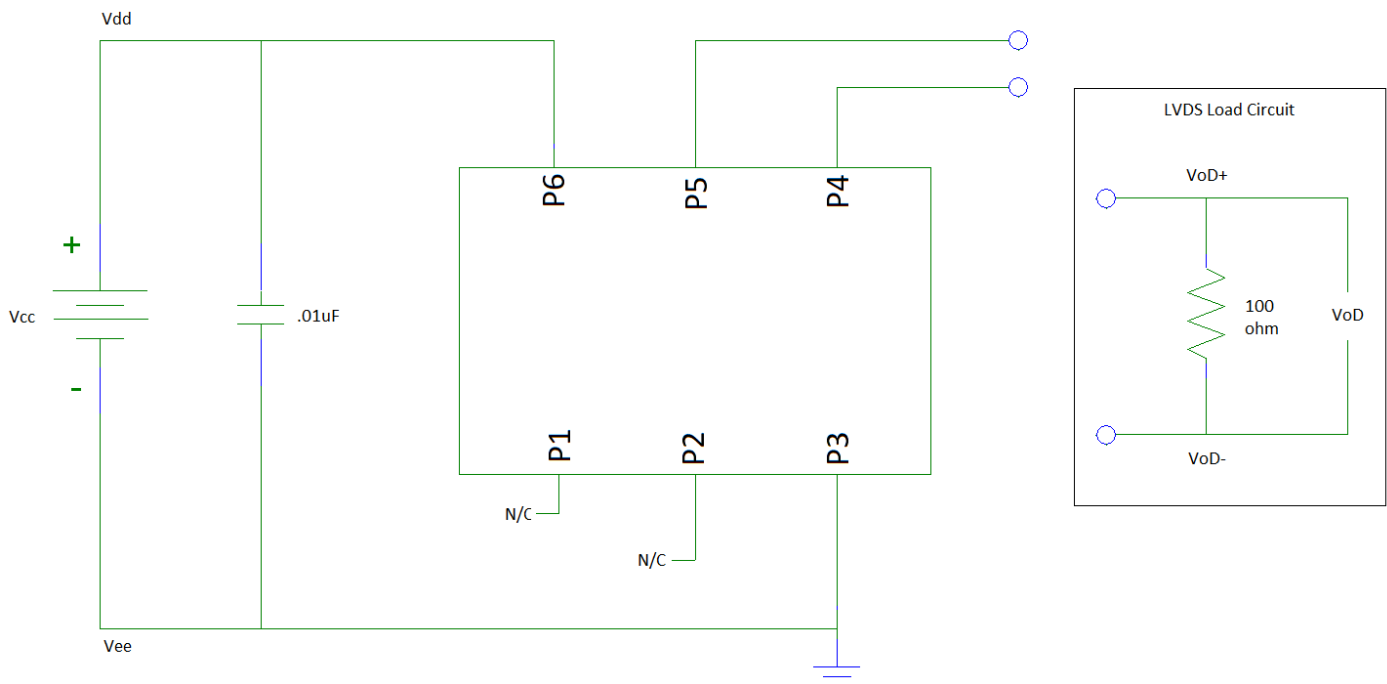


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### Output Waveform:



### Typical Test Circuit & Load Circuit Diagrams:





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### Soldering Conditions:

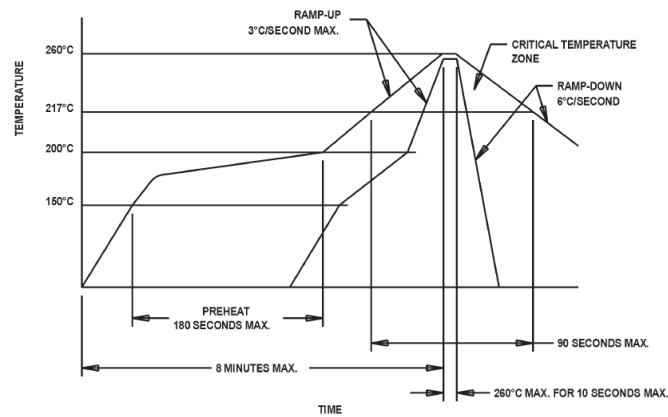
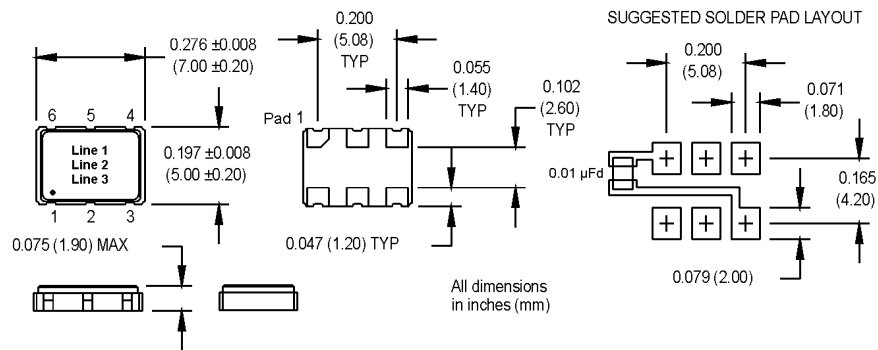


Figure 1

### Mechanical, Marking, and Pin Out Information:



### Datasheet Revision Table:

| Date     | Rev. | Author | Details of Revision |
|----------|------|--------|---------------------|
| 11/28/18 | 0    | MM     | Original release.   |