

SPECIFICATION FOR SMT VCXO M-tron P/N 1674-009

I. GENERAL & ELECTRICAL REQUIREMENTS:

1. FREQUENCY: 25.000000 MHz
2. FREQUENCY STABILITY VS. TEMPERATURE: ± 50 ppm (Inclusive of initial tolerance, operating temperature, voltage & load variation, shock, vibration, and aging.
3. OPERATING TEMPERATURE RANGE: -40°C to $+85^{\circ}\text{C}$
4. OPERATING VOLTAGE (Vdd): $3.3\text{ V} \pm 0.15\text{ V}$
5. OPERATING CURRENT: 25 mA max.
6. OUTPUT TYPE: CMOS/TTL Compatible
7. SYMMETRY: 45/55% ref. to $\frac{1}{2}$ Vdd
8. RISE/FALL TIME: 5 nS max. ref. to 20% to 80%
9. OUTPUT LOGIC LEVELS: $V_{OL} = 0.33\text{ V}$ max. $V_{OH} = V_{dd} - 0.33\text{ V}$ min.
10. OUTPUT LOAD: 15 pF max.
11. PULLABILITY (APR): ± 50 ppm (With respect to nominal frequency at any combination of temperature, supply voltage, shock, vibration, load, and aging).
12. CONTROL VOLTAGE (Pin 1): 0.3 V to 3.3 V (Center frequency at + 1.65 V)
13. LINEARITY: 10% max. with positive monotonic slope.
14. MODULATION BANDWIDTH: 10 kHz min. (-3 dB)
15. PHASE JITTER: 10 pS RMS max. (Integrated from 12 kHz to 20 MHz).
16. PHASE NOISE (Typical): 10 Hz -60 dBc/Hz, 100 Hz -90 dBc/Hz, 1 kHz -112 dBc/Hz, 10 kHz -131 dBc/Hz, 100 kHz -128 dBc/hz
17. TRISTATE FUNCTION (Pin 2): Logic "1", or floating enables the output.
Logic "0" disables the output to a high impedance.

II. ENVIRONMENTAL & MECHANICAL REQUIREMENTS:

1. SHOCK: MIL-STD-202, Method 213, Condition C.
2. VIBRATION: MIL-STD-202, Methods 201 & 204.
3. HERMETICITY: 1×10^{-8} atm cc/sec min.
4. STORAGE TEMPERATURE: -55°C to $+125^{\circ}\text{C}$
5. SOLDERABILITY: Per EIAJ-STD-002
6. REFLOW SOLDER CONDITIONS: $+240^{\circ}\text{C}$ for 10 secs. max.
7. PACKAGE: 6- pad leadless ceramic (MV3 Type)

DIMENSIONS

