

SPECIFICATION FOR SMT VCXO M-TRON P/N M3006S016

I. GENERAL & ELECTRICAL REQUIREMENTS:

1. FREQUENCY: 38.8800000 MHz
2. FREQUENCY TOLERANCE AT +25°C: ± 20 ppm ($V_c = +1.65$ VDC)
3. FREQUENCY STABILITY OVER TEMPERATURE RANGE: ± 30 ppm
4. OPERATING TEMPERATURE RANGE: -40°C to +85°C
5. OPERATING VOLTAGE: 3.3 V ± 0.33 V
6. OPERATING CURRENT: 20 mA max.
7. OUTPUT TYPE: HCMOS Compatible
8. SYMMETRY: 45/55% ref. to $\frac{1}{2} V_{dd}$
9. RISE/FALL TIME: 5 nS max. ref. to 20% and 80%
10. OUTPUT LOAD: 15 pF max.
11. OUTPUT LOGIC LEVELS: $V_{OL} = 10\%$ dd max. $V_{OH} = 90\%$ Vdd min.
12. PULLABILITY (APR): ± 5 ppm min. ($V_c = 1.0$ to 2.0 VDC). ± 50 ppm min. ($V_c = 0.3$ to 3.0 VDC).
13. CONTROL VOLTAGE PIN 1 (V_c): 0.3 V to 3.0 V (Center frequency at +1.65 V)
14. CONTROL VOLTAGE LEAKAGE CURRENT(Pin 1): 100 nA max.
15. MODULATION BANDWIDTH (-3 dB): 10 kHz min. ($V_c = +1.65$ VDC)
16. INPUT IMPEDANCE (Pin 1): **DC - >10Mohms (input leakage less than 1 μ Amp)** (Updated by M-tron 5/2/03)
17. LINEARITY: 20% max. with positive monotonic slope.
18. START-UP TIME: 10 mS max. to reach 90% of final waveform amplitude.
19. TRISTATE FUNCTION (Pin2): Logic "1" or floating enables output. Logic "0" disables output to 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 +85°C
5. SOLDERABILITY: Per EIAJ-STD-002
6. REFLOW SOLDER CONDITIONS: +240°C for 10 secs. max.
7. PACKAGE: 6 - pad leadless ceramic surface mount. (MV3 type)

DIMENSIONS

