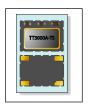
TT-VT3000A-TS

Crystal Oscillator

FEATURES: Stratum III Ceramic Package





(1.9)

(1.2)

TT-VT3000A-TS
Package

0.200

GND (TCXO)

(1.4)

0.059

(4.2)

CMOS and Clipped Sine 7.0 x 5.0 x 1.9 mm

| Parameter | Unit | Min. | Max. |
|---|--------|----------------|------|
| Frequency Range | MHz | 5 | 26 |
| Frequency Tolerance (Overall, 20 Years) | ppm | - | ±4.6 |
| Frequency Stability | | | |
| Holdover | ppm | - | ±0.5 |
| Storage Temperature Range | °C | -55 | +125 |
| Current Consumption (CMOS) | mA | - | 6 |
| Current Consumption (Clipped Sine) | mA | - | 3.5 |
| Load (CMOS) | pF | 15 | |
| Load (Clipped Sine) | | 10 KOhms//10pF | |
| Output Level (CMOS) | V | 90% | 10% |
| Output Level (Clipped Sine) | V p-p | 0.8 | - |
| Duty Cycle (CMOS only) | % | 45/55 | |
| Voltage | | 3.3, 5.0 ±5% | |
| Output Level | Vp-p | 0.8 | - |
| Load | | 10KOhms//10pF | |
| Control Voltage Range (VCTCXO) | V | See Table | |
| Frequency Deviation (VCTCXO) | ppm | ±5 | ±10 |
| VC Input Impedance (VCTCXO) | KOhms | 100 | - |
| Start-up Time | mSec | - | 2 |
| Phase Noise | | | |
| @ 1 kHz | dBc/Hz | -145 typical | |

Overall Stability including frequency tolerance @ 25° C. vs. supply voltage, vs. load, reflow soldering, 20 years of aging, and frequency stability over temperature range. Holdover Stability including 24 hours of aging, vs. supply voltage, and frequency stability over temperature range.

Recommended Solder Pattern Environmental

0.200

| Terminal Material | W |
|--------------------|-------|
| Terminal Plating | Ni-Au |
| REACH Compliant | Yes |
| RoHS Compliant | Yes |
| RoHS Exemptions | No |
| Re-flow Temp. Max. | 260°C |
| MSL | 1 |

Frequency Stability vs. Temperature Range

| | • • | |
|-------------|--|--|
| Temperature | Stability (ppm) | |
| -10 to 60°C | $\pm 0.14, \pm 0.2, \pm 0.28, \pm 0.5$ | |
| -20 to 70°C | $\pm 0.14, \pm 0.2, \pm 0.28, \pm 0.5$ | |
| -40 to 85°C | ±0.28, ±0.5 | |



Example Part Number: VT3000A-TS-A-18-A-27-24M576 VT3000A-TS 2 5 **Stability Pull Range** Temp. Range **Frequency** Voltage 30 = 3.0 V $16 = -10 \text{ to } 60^{\circ}\text{C}$ $A = \pm 0.5$ $A = \pm 10$ Frequency in MHz $B = \pm 0.28$ 25 = 2.5 V $27 = -20 \text{ to } 70^{\circ}\text{C}$ i.e. 24M576 $B = \pm 8$ $C = \pm 0.2$ 18 = 1.8V $C = \pm 5$ $48 = -40 \text{ to } 85^{\circ}\text{C}$ use M for decimal $D = \pm 0.14$ T= TCXO point