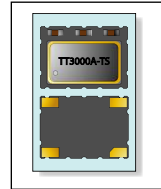


TT-VT3000A-TS Crystal Oscillator



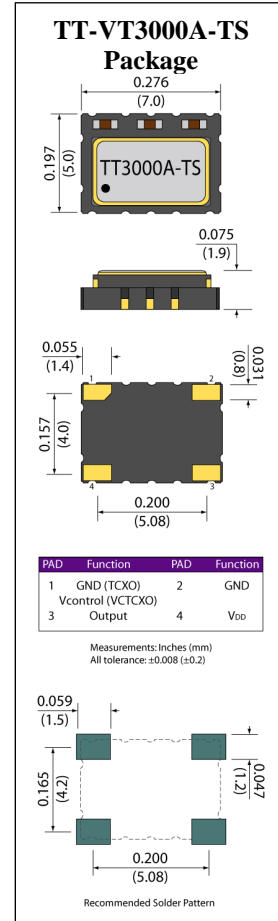
FEATURES:
Stratum III
Ceramic Package

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.



Frequency Stability vs. Temperature Range

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

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Environmental

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

Example Part Number: VT3000A-TS-A-18-A-27-24M576

| VT3000A-TS | 1 | 2 | 3 | 4 | 5 |
|------------|------------------|----------------|-------------------|--------------------|-------------------------|
| | Stability | Voltage | Pull Range | Temp. Range | Frequency |
| | A = ±0.5 | 30= 3.0 V | A = ±10 | 16= -10 to 60°C | Frequency in MHz |
| | B = ±0.28 | 25= 2.5V | B = ±8 | 27= -20 to 70°C | i.e. 24M576 |
| | C = ±0.2 | 18= 1.8V | C = ±5 | 48= -40 to 85°C | use M for decimal point |
| | D = ±0.14 | | T= TCXO | | |