

Temperature Compensated Crystal Oscillators



ULTRA MINIATURE (2.5x2.0x0.9 mm) SMD VCTCXO IN LCC PACKAGE - TC22 Series

FEATURES

- RoHS Compliant (Pb-Free), Tight Stability over Wide Temperature Range
- Voltage Control Option for Electric Frequency Adjustments
- Leadless Chip Carrier (LCC) Miniature Small Package, Industry de factor Standard Footprint
- Ultra Small Size, Low Profile, Light Weight and Low Power Consumption

SPECIFICATIONS

Frequency Range	10.000 MHz to 52.000 MHz
Input Voltage (Vcc)	B = 3.3V ± 5%; C = 3.0V ± 5%; D = 2.8V ± 5%
Input Current	2.2 mA Maximum (at 3V, 25°C)
Storage Temperature	-40°C to 85°C
Frequency Stability vs Temp. Temperature Range	005 = ±0.5 ppm; 010 = ±1 ppm; 025 = ±2.5 ppm (not all combination is available) A = 0°C to 70°C; B = -40°C to 85°C; H = -30°C to 75°C; J = -30°C to 85°C
Frequency Tolerance	±1.5 ppm Maximum, after 2time reflow, @25°C
Frequency Stability vs Vcc	±0.2 ppm Maximum / Vcc ± 10%
Frequency Stability vs Load	±0.2 ppm Maximum / 10 kOhms or 10 pF ±10%
Aging	±1.0 ppm Maximum per year @25°C
Output Load	10 kOhms or 10 pF ±10%
Output Waveform	Clipped Sine wave; Harmonics: -5 dBc Maximum
Output Level	0.8Vp-p Minimum
Start-up Time	4 ms (Typical)
SSB Phase Noise	-130 dBc/Hz at 1KHz (Typical)
Control Voltage (Vc, Option)	+1.4V ±1.0V, Positive polarity
Controllable Frequency	±3 ppm to ±5 ppm over control voltage range (0.4V to 2.4V)

Creating a Part Number

TC22-19M200-C V 025 J

Product Series	TC22	Operating Temperature Range: A = 0 to 70°C
Frequency	19M	Frequency Stability: J = -30 to 85°C
Supply Voltage: B = 3.3V	C	H = -30 to 75°C
C = 3.0V	V	X = Customized Temp Range
D = 2.8V	blank	005 = ±0.5 ppm
		010 = ±1 ppm
		025 = ±2.5 ppm

OUTLINE DRAWING

