EUROQUARTZ

T53 TCXO

Precision Miniature TCXO — 10.0MHz to 50.0MHz

- **Up to 50,000g shock and vibration performance**
- **Low G sensitivity**
- **Stability from ±0.5ppm over -40 to +85°C**
- **HCMOS or Clipped Sine Wave output**
- **Miniature SMD package**

RoHS



DESCRIPTION

T53 series TCXOs are ultra-miniature packaged parts providing extended shock and vibration performance with close tolerance temperature stability. The part provides tight stability from 0.5ppm over -40° to +85°C.

GENERAL SPECIFICATION

Frequency Range:	10.0MHz to 50.0MHz
Output:	HCMOS or Clipped Sine Wave
Supply Voltage:	+3.0V, +3.3V or +5.0VDC±5%
Supply Current	
HCMOS ('C'):	<6mA
Clipped Sine Wave ('S'):	<3MA
Ageing:	<1ppm/yr for std. shock level config. (Improved ageing available.)
Frequency Adjust:	±8ppm typical via 0 to Vcc control Voltage, positive slope.
G-Sensitivity	
Standard (SD):	≤2.5 x 10^{-9}/g typical.
Low G-Sensitivity (LG):	≤7 x 10^{-10}/g typical.

ENVIRONMENTAL

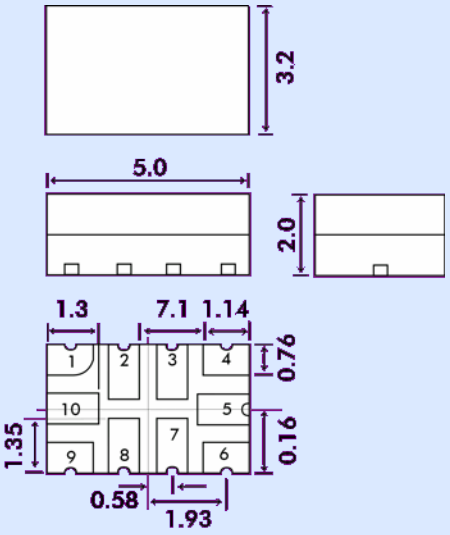
Vibration - per MIL-STD-202G, Method 214, Condition I~F
Shock - per MIL-STD-202G, Method 213, Condition D

Note: Shock withstanding levels up to 50,000g are available. The standard part 'code A,' shock and vibtation is specified as above. For higher levels please specify the 'code B' option and consult factory.

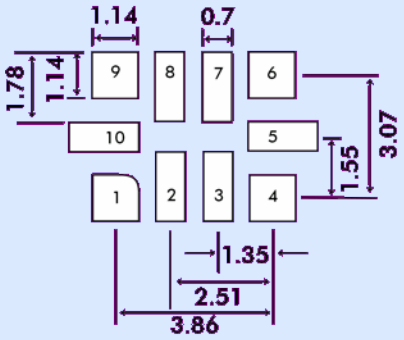
STABILITY OVER TEMPERATURE

Temp. Range	Stability	Part No. Code
-10~+60°C	±0.3ppm	G37
-20~+70°C	±0.5ppm	N57
-40~+85°C	±0.5ppm	T57
-40~+85°C	±1.0ppm	T16
-55~+95°C	±2.0ppm	V26

T53 - OUTLINES AND DIMENSIONS



Pad Layout



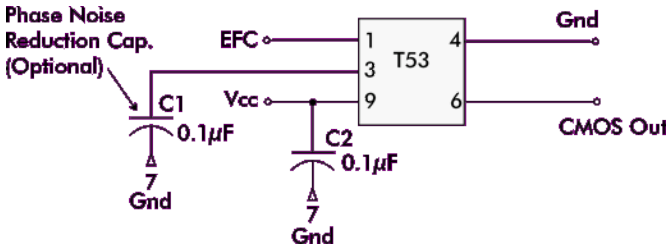
Pad Connections
1: EFC
2: VRef
3: n/c or Low Phase Noise Cap option
4: 0V, Ground
5: Tri-State (enable Hi or float)
6: Output
7: n/c, internal use only
8: n/c, internal use only
9: Supply Voltage
10: n/c, internal use only

Outline Note: An optional pad layout would be to only use the four corner pads, 1, 4, 6 & 9. This pad layout can be used if the Tristate, Vref and Low Phase Noise options are not needed.

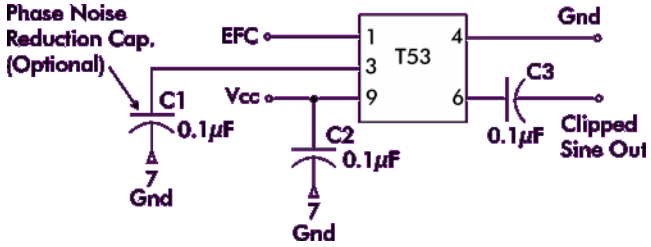
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RECOMMENDED OUTPUT CONFIGURATIONS

CMOS OUTPUT (DC COUPLED)



CLIPPED SINE WAVE OUTPUT (AC COUPLED)



PART NUMBERING

Example: **T53-T57-C-3.3-LG-A-20.0MHz**

