

FEATURES

- High temperature operation up to 200°C
- Excellent stability over temperature
- High shock resistance
- CMOS output
- Through-hole leaded package - reduces mounting stress
- Robust lead attach-eutectic brazing process
- Gold plated Kovar leads



DESCRIPTION

For applications with high operating temperatures such as downhole instrumentation, rotary shaft sensors and underground boring tools.

SPECIFICATION

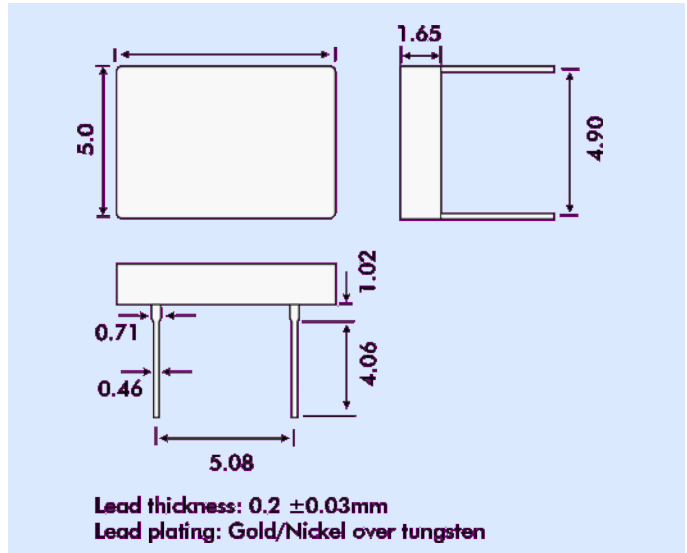
Specifications are typical at 25°C unless otherwise indicated. Tighter specifications are available, contact Euroquartz technical sales.

Supply Voltage:	+3.3 ±10%
Calibration Tolerance:	±50ppm or tighter as reqd.
Frequency Stability	
25° ~ +150°C:	±100ppm
25° ~ +175°C:	±150ppm
25° ~ +200°C:	±175ppm
Total Tolerance:	±200ppm for 25° to 200°C
Supply Current (Typical)	
24MHz:	3.0mA
32MHz:	5.0mA
50MHz:	6.0mA
Output Load (CMOS):	15pF
Start-up Time:	5ms max.
Rise/Fall Time:	10ns typical
Duty Cycle:	60/40%
Ageing first year:	±5ppm max. at 25°C
Ageing:	±100ppm max. at 200°C
Shock Survival	
Standard:	5,000g, 0.3ms, ½ sine
HG version:	30,000g, 0.3ms, ½ sine
Vibration Survival:	20g, 10~2000Hz swept sine
Operating Temp. Range:	-55°C to 225°C

ABSOLUTE MAXIMUM RATINGS

Supply Voltage:	-0.5V to +4.0V
Maximum Process Temperature:	260°C for 20 seconds
Storage Temperature:	-55° to +125°C

OUTLINE & DIMENSIONS



ENABLE/DISABLE OPTIONS (E/N)

LHTAT oscillators have two enable/disable options, designated E & N. The E version has a tristate output and stops oscillating internally when the output is placed in a high Z state. The N version does not have the control pin, Pin1, connected internally so there is no enable/disable function with this option.

ENABLE/DISABLE OPTION E - FUNCTION TABLE

	Enable (Pin1 High*)	Disable (Pin 1 Low)
Output	Frequency Output	High Z state
Oscillator	Oscillates	Stops
Current	Normal	Very low

*When Pin 1 is allowed to float it is held by an internal pull-up resistor

PACKAGING

LHTAT oscillators are supplied tube packed.

HOW TO ORDER LHTAT OSCILLATORS

