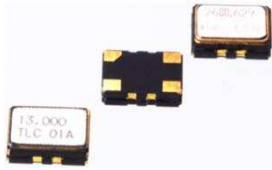


High stability Packaged Crystal Oscillator (HPXO)

Temperature Compensated
Metal Sealed
Onechip IC

Pb-free : RoHs compliance



HP-TC3225

Typical applications

- Cellular Phone, Network equipment, etc.

Features

- 4.000 to 54.000 MHz.
- C-MOS output with Tri-state function
- Temperature Compensated function
- Package : Metal lid + Ceramic package.
- 3.2×2.5×1.0mm

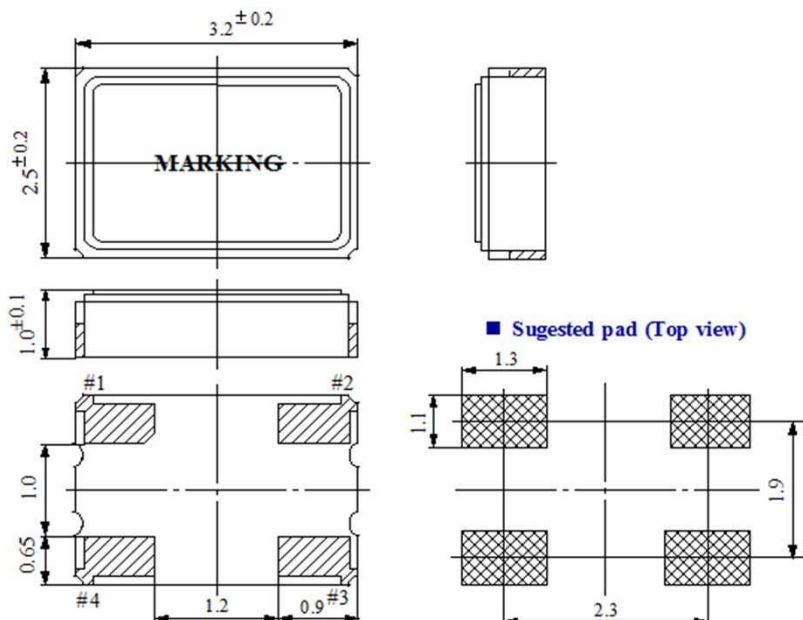
Specifications

| Model | | HP-TC3225 |
|---------------------------|-----------------------------|--|
| Available Frequency Range | | 4.000 to 54.000 MHz |
| Frequency Stability | Tolerance (at 25° C) | ±0.5 ppm |
| | Temperature (Ref. to 25° C) | ±2.5 ppm (-30 to +75° C) , ±2.5ppm (-40 to +85° C) |
| | Supply Voltage Change | ±0.2 ppm |
| | Load Change | ±0.2 ppm |
| Power Supply Voltage | | +1.8V, +2.5V, +3.0V, +3.3V |
| Current consumption | | 7.0 mA max.(3.1mA typ.) / 10µA max. (Standby) |
| Output | Voltage | VOL : 10%Vdd max / VOH : 90% Vdd min. |
| | Load | 15 pF |
| | Waveform | C-MOS |
| Rise & Fall time | | 5ns max. / 10%Vdd -90%Vdd |
| Duty cycle | | 45% to 55% at 1/2Vdd |
| Tri-state Function | | #1 N.C. or "H" : Output enable / #1 "L" : Output disable(Hi-Z) |
| Phase Noise / Jitter | | -145 dBc/Hz typ. at 10KHz offset / 1σ 3ps typ |
| Storage Temperature Range | | -40 to +85° C |

Environmental Characteristics

| Description | Specification |
|------------------|---|
| Aging (at 25° C) | ±1.0 ppm max / Year (at 25° C) |
| Fall Shock | Test : 3 time free drop onto concrete board from 150cm high Result: ±1.0 ppm max. |
| Vibration Shock | Test : Freq. 5-500Hz, Amplitude 1.5mm, Test time 4cycles/XYZ axis Result: ±1.0 ppm max. |
| Solderability | Test : Immersed into solder bath at 235±° C for 3 sec. Result: More than 95% |
| Humidity | Test : 90 to 95%RH at 60±3° C±500 hours Result: ±1.0 ppm max. |
| Reflow Heat | Test : 2 times of IR reflow soldering in accordance with reflow temperature profile as per the document No.:TR-0531 Result: ±1.0 ppm max. |

Outline Drawing & Suggested Pad



| TERMINAL | CONNECTION | |
|----------|------------|--|
| | | |
| #1 | CE | |
| #2 | GND | |
| #3 | OUTPUT | |
| #4 | Vdd | |