

SMD TCXO

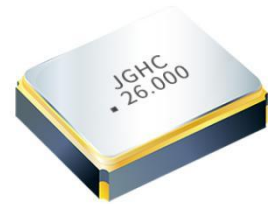
Crystal Oscillators

2.5x2.0x0.8mm W22 Series



Features

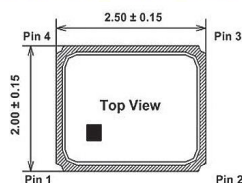
- Temperature Stability: ± 0.5 ppm $\sim\pm 2.0$ ppm.
- Operating Temperature Range: $-30^{\circ}\text{C}\sim 85^{\circ}\text{C}$.
- Supply Voltage: 1.8V \sim 3.3V.
- Voltage Control Function Available.
- Applications: GPS, WiMAX, Cellular and Wireless Communications.
- RoHS Compliant / Pb Free.



Crystals specifications

| ITEMS/TYPE | | W22 |
|---|--|--|
| Frequency Range | | 13 ~ 52MHz |
| Output Load | | 10K Ω // 10pF |
| Oscillation Mode | | Fundamental |
| Supply Voltage | | 1.8~3.3 V |
| Output Type | | Clipped Sinewave |
| Clipped Sinewave Output Voltage | | 0.8 Vp-p min |
| Supply Current | | 2.0mA max. |
| Harmonics | | - 5 dBc Max. |
| Output Level | | 0.8 Vp-p min |
| Frequency Stability | Vs Temperature($-30\sim+85^{\circ}\text{C}$) | ± 0.5 ppm / ± 2.0 ppm |
| | Supply Voltage ($V_{cc}=\text{Typical} \pm 0.1\text{V}$) | ± 0.2 ppm max. |
| | Load (Load varies $\pm 10\%$) | ± 0.2 ppm max. (10K Ω / 10pF $\pm 10\%$) |
| Slope of Frequency Drift | | ± 0.1 ppm / $^{\circ}\text{C}$ Typical ; ± 0.5 ppm / $^{\circ}\text{C}$ Max. |
| Initial Frequency Tolerance at 25°C after 2 Reflows | | ± 2.5 ppm max. (After 2 times reflow) |
| Storage Temperature Range | | $-40\sim+85^{\circ}\text{C}$ |
| Auto Frequency Control Range | | $\pm 7 \sim \pm 16$ ppm (1.4+/- 1V) |
| Start-up Time | | 5 ms max. |
| Phase Noise at 1 kHz offset | | - 130 dBc / Hz |
| Aging(at 25°C) | | ± 1 ppm / year |
| Packing Unit | | 3,000pcs/Reel |

Dimensions and patterns(unit:mm)

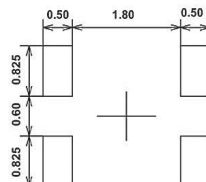
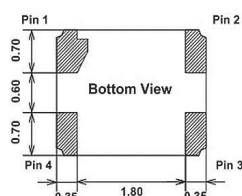


Pin Connection

| Name | Connection |
|-------|------------|
| Pin 1 | AFC or GND |
| Pin 2 | GND |
| Pin 3 | OUTPUT |
| Pin 4 | VCC |



Recommended Land Pattern



Units:mm