# PRECISION CRYSTAL OSCILLATOR

# SHO-3225


## Applications

- Wireless-LAN / PLC modem / WiMax / Mobile Communications etc.

## Features

- Ceramic package / Dimensions (3.2×2.5×0.9)
- High stability ±10ppm/-40℃ ~ +85℃
- Low current consumption
- 3.1mA typ. (40MHz Vdd=+2.5V)
- Low phase noise, Low jitter
- CMOS output with Tri-state function

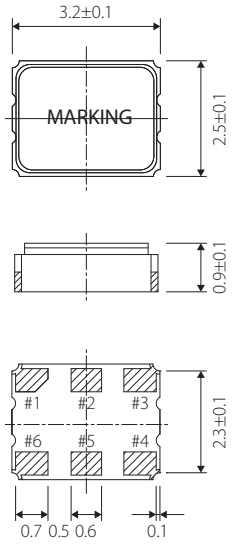
## Specifications

| Model | SHO-3225 |
|---|---|
| Frequency range | 2.5~60.0MHz |
| Nominal frequency (MHz) | 5, 10, 12, 16, 20, 24, 32, 40, 54 |
| Storage temperature range | -40~+85℃ |
| Operating temperature range | -40~+85℃ |
| Frequency stability | ±10×10$^{-6}$ , ±15×10$^{-6}$ ※1 |
| Power supply voltage (Vdd) | +1.8, +2.5, +3.0V, +3.3V DC±10% |
| Current consumption | 7mA max. / 10uA max (Standby) |
| Output level | C-MOS |
| Load | 15pF max. |
| Output voltage level | VOL: 10%Vdd max. / VOH: 90%Vdd min. |
| Rise & Fall time | 5ns max. / 10%Vdd ~ 90%Vdd |
| Duty cycle | 45%~55% at 1/2Vdd |
| Phase Noise / Jitter | -145dBc / Hz Typ. at 10kHz offset / 1 σ 3ps typ. |
| Tri-state Function | #1: Floating or "H"→Output enable / #1: "L"→Output disable (Hi-Z ) |

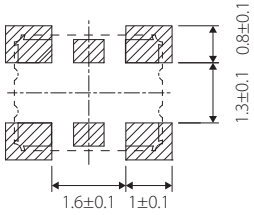
* Frequency stability include initial tolerance, temperature characteristics, suppli voltage & load stability, reflow frequency shift, aging (1 year@25℃ )

Package quantity: 3,000pcs max./Reel.

## Outline and Dimensions [unit:mm]




Land Pattern(REFERENCE)




| Terminal | Connection |
|---|---|
| #1 | Tri-state |
| #2 | N.C |
| #3 | GND |
| #4 | OUTPUT |
| #5 | N.C |
| #6 | Vcc |

| Tri-state Function | |
|---|---|
| Tri-state pin | Output |
| High or Floating | Active |
| Low | Hi-Impedance |

Patience Confidence Concentric
SIWARD