



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 $\pm 5\text{ppm}$ / $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Low current consumption
- 3.1mA typ. (40MHz Vdd=+2.5V)
- Low phase noise, Low jitter
- CMOS output with Tri-state function

Specifications

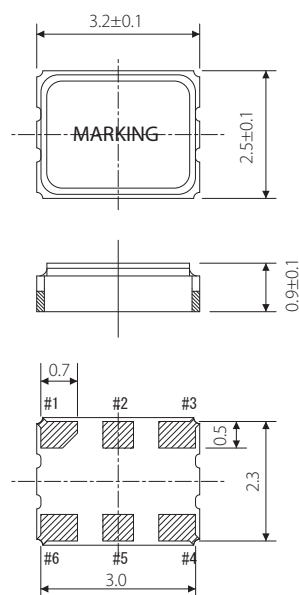


Model	SHO-3225
Frequency range	2.500~60.000 MHz
Nominal Frequency (MHz)	5, 10, 12, 16, 20, 24, 32, 40, 44
Storage temperature range	$-30^{\circ}\text{C} \sim +75^{\circ}\text{C}$, $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Operating temperature range	$-30^{\circ}\text{C} \sim +75^{\circ}\text{C}$, $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Frequency stability	$\pm 10 \times 10^{-6}$, $\pm 15 \times 10^{-6}$ $\times 1$
Power supply voltage (Vdd)	+1.8, +2.5, +3.0V, +3.3V DC $\pm 10\%$
Current consumption	7mA max. / 10uA max (Standby)
Output level	C-MOS
Load	15pF max.
Output voltage level	V _{OL} : 10%Vdd max. / V _{OH} : 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)

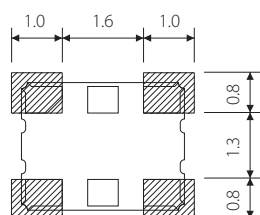
Package quantity: 3,000pcs max./Reel.

$\times 1$ Frequency stability includes initial tolerance, temperature characteristics, supply voltage & load stability, reflow freq. shift, aging(1year @25°C).

Outline and Dimensions [unit:mm]



Example of a Terminal Land Pattern



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

Tri-state Function

Tri-state Pin	Output
High or Floating	Active
Low	Hi-impedance