

# SMD Crystal Oscillators

## CMOS Output

### 2.5x2.0x0.8mm O22 Series



#### Features

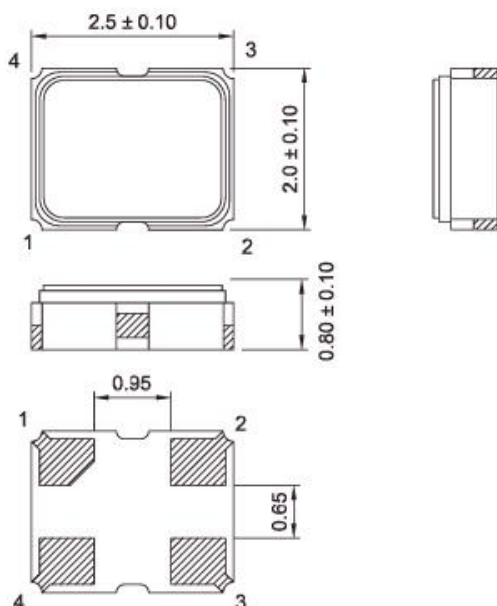
- Extremely small SMD seam sealed clock oscillator unit.
- Application for smart phone, sip module, variety of compact portable consumer products.
- Tri-state function available.
- High reliable environmental performance.
- RoHS Compliant / Pb Free.



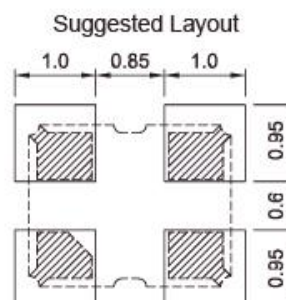
#### Crystals specifications

ITEMS/TYPE	O22
Frequency Range	1~125MHz
Output Type	CMOS
Output Load	15 pF , or specify
Oscillation Mode	Fundamental / 3rd Overtone
Supply Voltage	1.8V~3.3V, or specify
Frequency Stability	± 20 ppm , or specify
Operating Temperature Range	-40~+85 °C , or specify
Storage Temperature Range	-55~+125 °C
Voltage Vol ( Max. )/Voltage Voh ( Min. )	VOH=90%Vdd / VOL+10%Vdd
Rise ( Tr ) / Fall ( Tf ) Time	8 ns Max.
Current Consumption	20 mA Max.
Symmetry	40 ~ 60 %
Start-up Time	5 ms Max.
Phase Jitter ( 12 KHz ~ 20 MHz )	1 ps Max.
Aging ( at 25°C )	± 3 ppm / year Max.
Packing Unit	3,000pcs/Reel

#### Dimensions and patterns(unit:mm)



PAD FUNCTION:  
 1:ENABLE CONTROL  
 2:GND  
 3:OUT  
 4:VDD



Units:mm