

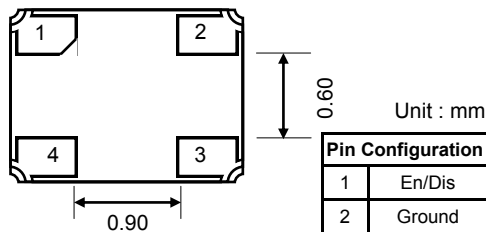
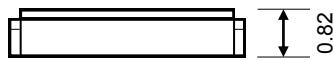
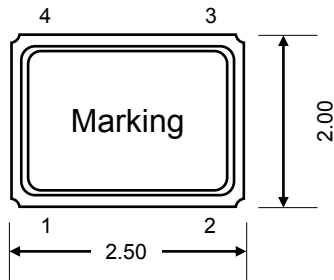
ULTRA MINIATURE SMD CMOS OSCILLATOR (2.5 x 2.0 x 0.82mm)
FEATURES:

- WIDE FREQUENCY RANGE
- LOW VOLTAGE / LOW CURRENT
- ENABLE / DISABLE

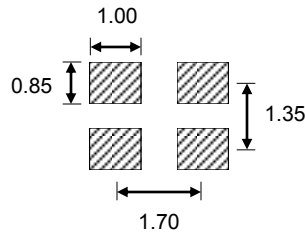
RoHS
Compliant



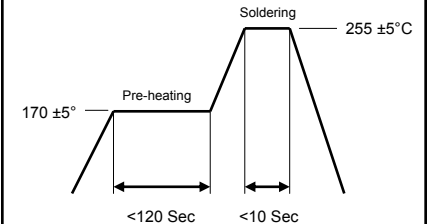
MODEL	TSM22		
SUPPLY VOLTAGE	1.8V	2.5V	3.3V
FREQUENCY RANGE	750.000KHz ~ 80.000MHz		1.000MHz ~ 80.000MHz
FREQUENCY STABILITY	± 25ppm ~ ± 100ppm		
OUTPUT	HCMOS		
OPERATING TEMPERATURE	-10°C to 70°C, -40°C to 85°C		
INPUT CURRENT	20mA max.	24mA max.	50mA max.
DUTY CYCLE	40/60% max. @ 1/2 VDD level		
RISE/FALL TIME	5.0nS typical, 7.0nS max		
OUTPUT VOLTAGE VoH/VoL	90% VDD min. / 10% VDD max.		
OUTPUT LOAD	15pF max.		
START UP TIME	10mS max.		
AGING	± 3.0ppm max. @ 25°C ± 3°C		
PIN# 1 TRISTATE	ViH 0.7 x VDD min. = Oscillation ViL 0.3 x VDD max. = Stop oscillation, High impedance		
DISABLE PHASE DELAY TIME	150nS max.		
ENABLE PHASE DELAY TIME	10mS max.		

PACKAGE DIMENSIONS


Pin Configuration	
1	En/Dis
2	Ground
3	Output
4	Vcc

SOLDER PATTERN


Unit : (mm)

REFLOW PROFILE


Note: Consult factory for detail

PART NUMBERING GUIDE
TSM22 - H 50 HM 33 S T - 12.000M - TR

Product series TSM22	Output H: HCMOS	Stability 00: ± 100ppm 50: ± 50ppm 25: ± 25ppm 15: ± 15ppm 10: ± 10ppm	Operating Temperature HM: 0°C to 70°C CQ: -40°C to 85°C Other options available	Tape and Reel TR: 1000/reel Blank: Cut tape	Frequency M: MHz K: KHz	Tristate T: En/Disable	Supply Voltage 18: 1.8 Volt 25: 2.5 Volt 33: 3.3 Volt 50: 5.0 Volt
				Symmetry R: 40/60% S: 45/55%			