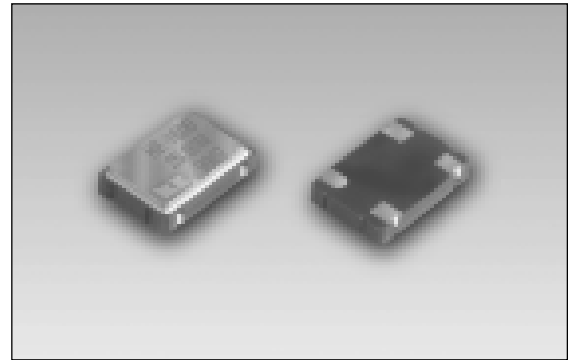


# HE-SMO-250 2.5 VOLT SURFACE MOUNT OSCILLATOR



The HE-SMO-250 series is the ceramic base SMD clock oscillator with the ability to drive both HCMOS and TTL loads in high density applications. These oscillators have industry standard pin out spacing and feature a height of only 1.6mm. The HE-SMO-250 product line features the low voltage operation of 2.5V, helping to increase battery life, reduce heat generation, and improve EMI.



## FEATURES:

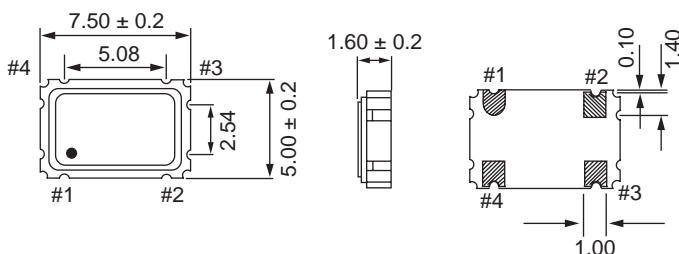
- Industry standard pin-out spacing
- Tri-State Enable/Disable
- Optional extended temperature range -40+85°C

## ELECTRICAL SPECIFICATIONS

PARAMETERS	SPECIFICATIONS
FREQUENCY RANGE	4.00 MHz to 133.00 MHz
OVERALL FREQUENCY TOLERANCE	A = ±25 PPM B = ±50 PPM C = ±100 PPM
OPERATING TEMPERATURE RANGE	0°C to +70°C (-40°C to +85°C Optional)
STORAGE TEMPERATURE RANGE	-55°C to +125°C
SUPPLY VOLTAGE	+2.5VDC (±10% VDC)
MAXIMUM SUPPLY CURRENT (I <sub>CC</sub> )	7mA
OUTPUT CURRENT	7mA
STANDBY CURRENT	2.9~7.6mA
SYMMETRY	45/55%
OUTPUT "0" LEVEL (VOL)	0.1 VDD
OUTPUT "1" LEVEL (VOH)	0.9 VDD
RISE / FALL TIME	1.9 nS
START UP TIME	10mS max.
OUTPUT LOAD	15 pF
DRIVING ABILITY	15 pF
ENABLE / DISABLE FUNCTION	#1 OPEN - #3 ACTIVE
PIN #1: E/D CONTROL PIN	#1 > 0.9 - #3 ACTIVE
PIN #3: OUTPUT PIN	#1 > 0.1 - #3 HIGH Z
JITTER	3pS (5pS max)

PART NUMBER	STABILITY CODE	TEMPERATURE RANGE	-FREQUENCY	OPTIONS
HE-SMO-250	A = ±25 PPM B = ±50 PPM C = ±100 PPM	Blank = 0°C to +70°C E = -40°C to +85°C	FREQUENCY	OTHER OPTIONS
EXAMPLE	HE-SMO-250BE-66.00M			

## MECHANICAL DRAWING

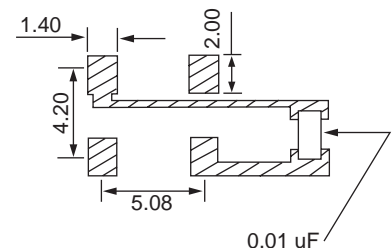


### Pin Connections:

- #1: E/D or NC
- #2: GND
- #3: Output
- #4: VDD

Unit: mm

### Recommended Solder Pad Layout



Note: A 0.01 mF bypass capacitor is recommended between VDD (pin 4) and GND (pin 2) to minimize power supply line noise.