

## ELECTRICAL SPECIFICATIONS

PARAMETERS	CONDITIONS	SPECIFICATION
FREQUENCY		8.000 ~ 32.768 MHz
FREQUENCY STABILITY	vs. Temp. Variation (-40°C to +85°C) vs. Supply Variation (2.8V ± 5%) vs. Load Variation (6~15kΩ // 2~10pF) vs. Aging vs. Frequency Tolerance vs. Frequency Stability Slope (-20°C to +85°C) (-40°C to -20°C)	±1.0 PPM (Overall temperature) ±0.3 PPM max. ±0.2 PPM (Based on frequency at 10kΩ//10pF) ±1.0 PPM max. per year ±1.0 PPM max (@ 25°C ± 2°C, after 2nd reflow soldering)
AGING		±1 PPM / YEAR
OPERATING TEMPERATURE		-40°C to +85°C
STORAGE TEMPERATURE		-40°C to +85°C
SUPPLY VOLTAGE		2.7V ~ 3.3V
INPUT CURRENT		2.5 mA max. (typical 1.35mA) / 5 mA (HCMOS)
OUTPUT LEVEL		0.8Vp-p min. CLIPPED SINE OR HCMOS
OUTPUT LOAD		6~15kΩ // 2~10pF (10kΩ // 10pF typical)
HARMONICS		-9 dBc max (-40°C to +85°C)
PHASE NOISE (TYPICAL)		-89 dBc/Hz max. (10Hz offset) -120 dBc/Hz max. (100Hz offset) -135 dBc/Hz max. (1kHz offset) -145 dBc/Hz max. (10kHz offset)
START UP TIME		30 ms. max. (Output level will be 90% from the final value)
DUTY CYCLE		40% ~ 60% (Based on DC level 0V)

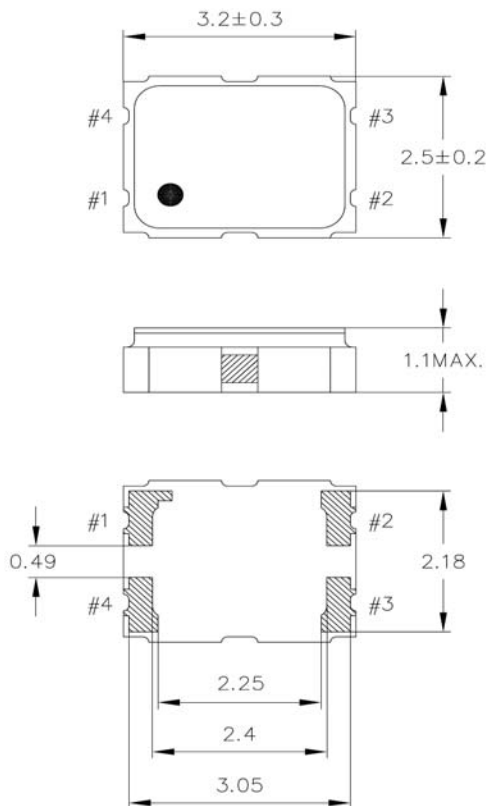
## ENVIRONMENTAL SPECIFICATION

ITEM	SPECIFICATIONS
VIBRATION	After following test, shall meet electrical specification. <b>Test Condition:</b> 10~55Hz, 1.52mm total amplitude, 2 hours for each 3 directions (X, Y, Z)
DROP TEST	After following test, shall meet electrical specification. <b>Test Condition:</b> TCXO is fixed to 200g test fixture. 5 cycles drops onto concrete from 1.5m height. (1 cycle consists of each 3 directions X, Y, Z)
HUMIDITY	After following test, shall meet electrical specification. <b>Test Condition:</b> +40°C 90% RH for 48 hours.
LOW TEMPERATURE TEST	After following test, shall meet electrical specification. <b>Test Condition:</b> -35°C ± 3°C for 10 ± 2 hours
HIGH TEMPERATURE STORAGE	After following test, shall meet electrical specification. <b>Test Condition:</b> +85°C ± 2°C for 10 ± 2 hours

**SOLDERING SPECIFICATIONS**

ITEM	SPECIFICATIONS
REFLOW SOLDERING	
MANUAL HOT GAS SOLDERING	The heating parts are limited to terminal. Max. Air Temperature : +300°C Max. Air Velocity: 10m/s Max. Exposure Time: 30s
MANUAL USING SOLDERING IRON	The heating parts are limited to terminal. Max. Tip Temperature : +370°C Antistatic Protection: Yes Max. Exposure Time: 3s

**MECHANICAL DRAWING**



Pin Connections

Pin No.	Connection
# 1	$V_{CONT}$
# 2	GND
# 3	OUT
# 4	$V_{CC}$