

General Performance

Oscillation Mode	AT, Fundamental
Storage Temperature	-55°C to +125°C
Operable Temperature	-20°C to +70°C

Electrical Performance

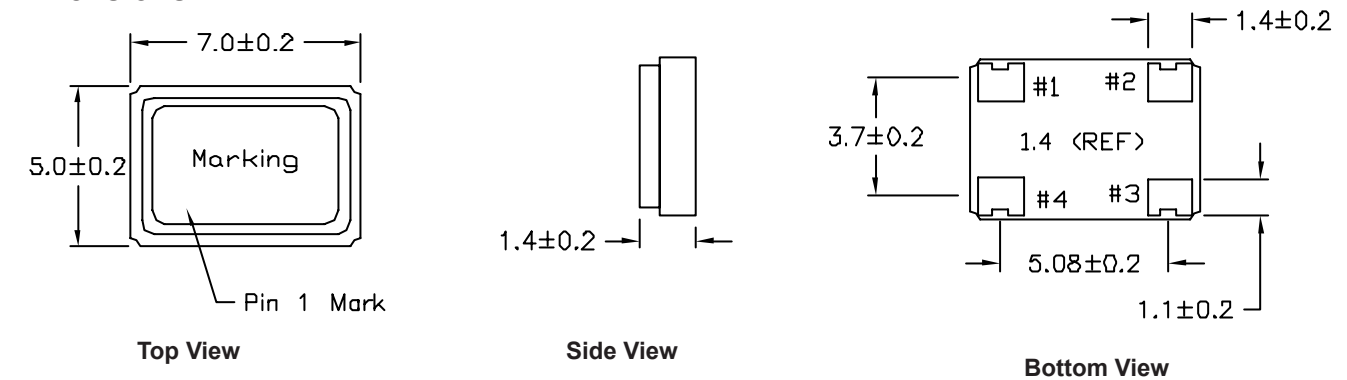
Frequency Stability	±100 ppm overall
	-20°C to +70°C
Voltage Change Tolerance	±3 ppm
Supply Current	10mA max.
Transition Time	Rise Time 6.0ns max.
	Fall Time 6.0ns max.
Start Time	10.0ms max.
Symmetry or Duty Cycle	45 / 55 % at 1/2 VDD
Output Waveform	CMOS
Output Voltage	V _{OH} : 90% V _{DD} min
	V _{OL} : 10% V _{DD} min
Aging	±3ppm/first year

Physical & Environmental Parameters

Description	Contents	Requirements
Vibration	10~55Hz 0.75mm amplitude, in 3 directions duration of 30 minutes.	No mechanical damage and the measured values shall meet electrical parameters.
Random Dropping	The crystal will be test by natural dropping to 30mm wooden broad 3 times from high of 30cm	
Solder Stability	Dipped the terminals no closer than 2mm into the solder bath at 260 ±5 for 10 ±0.5 sec.	At least 95% of the terminal surface shall be coated by the solder
Resistance Solder Heat	Dipped the terminals up to 2 mm into the solder bath (260 ±5°C) for 3 sec, placed in a natural condition for 2 hours.	Measured values shall meet electrical parameters.
Thermal Shock	Temperature cycling from -20°C (30mins) to +70°C (30mins) was performed 3 times, then placed in a natural condition for 2 hours.	
Life Test (High Temperature)	Placed in a chamber (70 ±2°C) for 48 hours, then placed in a natural condition for 2 hours.	

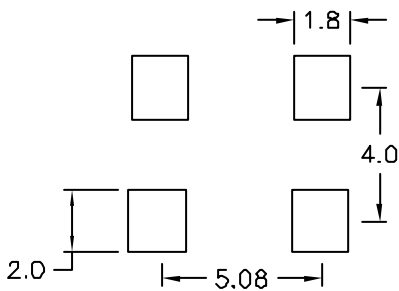
Description	Contents	Requirements
Life Test (Low Temperature)	Placed in a chamber ($-20 \pm 2^{\circ}\text{C}$) for 48 hours, then placed in a natural condition for 2 hours.	Measured values shall meet electrical parameters.
Humidity	Placed in a chamber (Humi: 90 ~ 95% RH, Temp: $40 \pm 2^{\circ}\text{C}$) for 48 hours, then placed in a natural condition for 2 hours	

Dimensions



Pad Function:

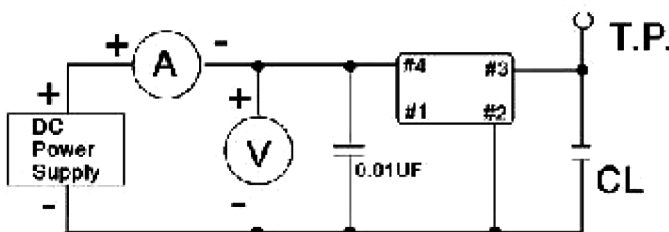
- #1. Enable Control
- #2. GND
- #3. Out
- #4. VDD



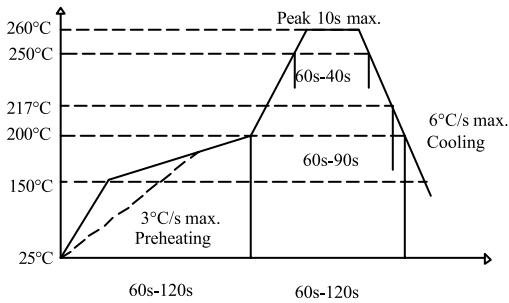
Recommended Soldering Pattern

Dimensions : Millimetres

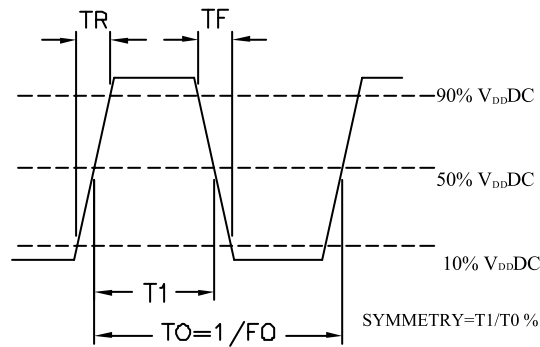
Test Circuit



REFLOW PROFILE



OUTPUT WAVEFORM



Part Number Table

Description	Supply Voltage	Fanout	Part Number
Oscillator, 4MHz, 7mm × 5mm	3.3V ±10%	CMOS/30pF	MCOT7040003V30000RA
Oscillator, 4MHz, 7mm × 5mm	5V ±10%	CMOS/15pF	MCOT7040005V00000RA
Oscillator, 10MHz, 7mm × 5mm	5V ±10%	CMOS/15pF	MCOT7100005V00000RA
Oscillator, 14.7456MHz, 7mm × 5mm	5V ±10%	CMOS/15pF	MCOT7147455V00000RA
Oscillator, 16MHz, 7mm × 5mm	3.3V ±10%	CMOS/30pF	MCOT7160003V30000RA
Oscillator, 16MHz, 7mm × 5mm	5V ±10%	CMOS/15pF	MCOT7160005V00000RA
Oscillator, 18.432MHz, 7mm × 5mm	3.3V ±10%	CMOS/30pF	MCOT7184323V30000RA
Oscillator, 20MHz, 7mm × 5mm	5V ±10%	CMOS/15pF	MCOT7200005V00000RA
Oscillator, 24.576MHz, 7mm × 5mm	3.3V ±10%	CMOS/30pF	MCOT7245763V30000RA
Oscillator, 25MHz, 7mm × 5mm	5V ±10%	CMOS/15pF	MCOT7250005V00000RA
Oscillator, 32.768MHz, 7mm × 5mm	3.3V ±10%	CMOS/15pF	MCOT7327683V30000RA

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