

RoHS  
Compliant

## Specifications

Oscillation Mode	AT, Fundamental
Nominal Frequency	25MHz
Storage Temperature	-55°C to +125°C
Operable Temperature	-20°C to +70°C

## Electrical Performance

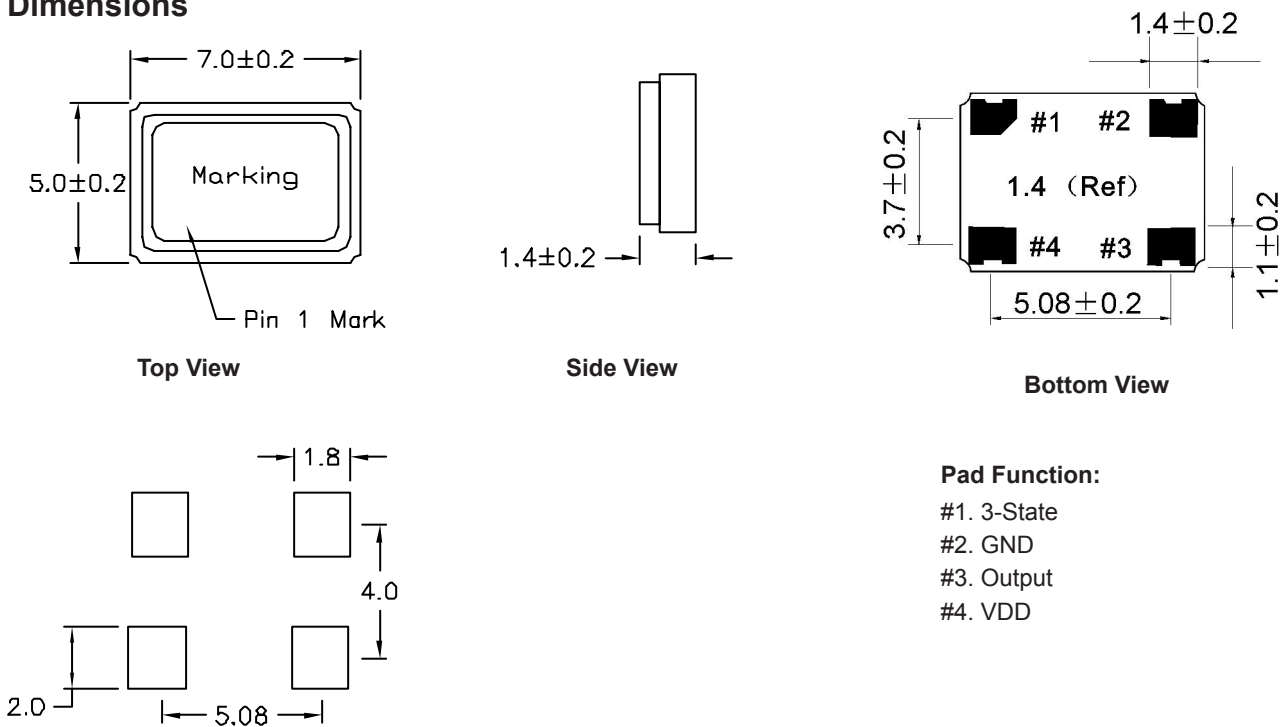
Frequency Stability	±100 ppm overall
	-20°C to +70°C
Supply Voltage	3.3V ±10%
Voltage Change Tolerance	±3ppm
Supply Current	25mA max.
Transition Time	Rise Time 6ns max.
	Fall Time 6ns max.
Start Time	10ms max.
Symmetry or Duty Cycle	40% / 60% at 1/2 VDD
Output Waveform	CMOS
Output Voltage	V <sub>OH</sub> : 90% V <sub>DD</sub> min.
	V <sub>OL</sub> : 10% V <sub>DD</sub> max.
Fan Out	CMOS/15pF
Aging	±3ppm/first year

## Physical and Environmental Parameters

Description	Contents	Requirements
Lead Strength	Force of 0.9kg is applied for 5 seconds to each lead in axial direction.	No mechanical damage and the measured values shall meet electrical parameters.
Lead Bending	Firmed the terminal up to 2mm, lead shall be subjected to withstand against 90° bending its stem. This operation shall be done toward both direction.	
Vibration	10 ~ 55Hz, 0.75mm amplitude, in 3 directions duration of 30 minutes.	
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

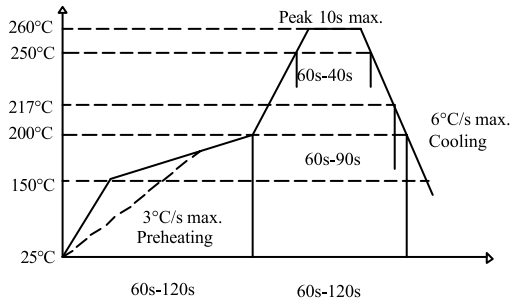
Description	Contents	Requirements
Resistance Solder Heat	Dipped the terminals up to 2mm into the solder bath (260 ±5°C) for 3 sec, placed in a natural condition for 2 hours.	Measured values shall meet electrical parameters.
Thermal Shock	Temperature cycling from -20°C (30mins) to +70°C (30mins) was performed 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.	
Life Test (Low Temperature)	Placed in a chamber (-20 ±2°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 ±2°C) for 48 hours, then placed in a natural condition for 2 hours	

## Dimensions

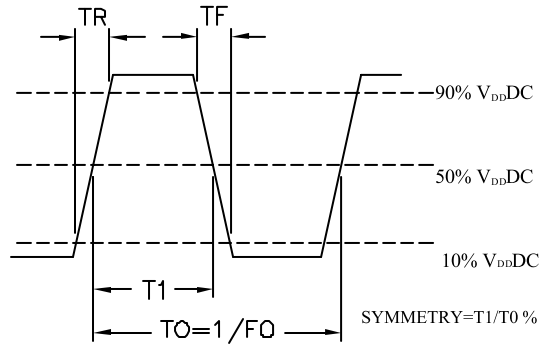


Dimensions : Millimetres

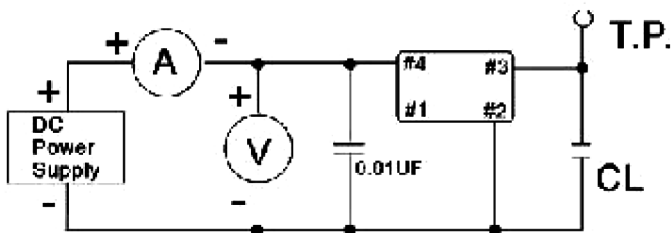
## REFLOW PROFILE



## OUTPUT WAVEFORM



## Test Circuit



## Part Number Table

Description	Part Number
Oscillator, 25MHz, 3.3V, 7mm × 5mm	MCOT7250003V300000RA

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