Crystal Oscillator



RoHS Compliant





Specifications:

Oscillation Mode : AT, Fundamental

Nominal Frequency : 50MHz

Storage Temperature : -55°C to +125°C
Operable Temperature : -20°C to +70°C

Electrical Performance

Frequency Stability : ±50ppm
Supply Voltage : 3.3V ±10%
Voltage Change Tolerance : ±3 ppm
Supply Current : 25mA max.
Rise/Fall Time : 7ns max.

Output Symmetry : 40% to 60 % (at 50% VDD)

 $\begin{array}{lll} \text{Output Level} & : \text{CMOS} \\ \text{Output Load} & : 15 \text{pF} \\ \text{Aging} & : \pm 3 \text{ppm} \end{array}$

Physical and Environmental Parameters:

No.	Description	Contents	Requirements
1	Lead Strength Lead Bending	Force of 0.9 kg is applied for 5 seconds to each lead in axial direction. Firmed the terminal up to 2 mm, lead shall be subjected to withstand against 90° bending its stem. This operation shall be done toward both direction.	No mechanical damage and the measured values shall meet electrical parameters.
2	Vibration	10~55Hz, 0.75mm amplitude, in 3 directions duration of 30 minutes.	
3	Random Dropping	The crystal will be test by natural dropping to 30mm wooden broad 3 times from high of 30 cm.	
4	Solder Stability	Dipped the terminals no closer than 2mm into the solder bath at 260 ±5°C for 10 ±0.5 sec.	At least 95% of the terminal surface shall be coated by the solder
5	Resistance Solder Heat	Dipped the terminals up to 2mm into the solder bath (260 ±5°C) for 5 sec., placed in a natural condition for 2 hours.	Measured values shall meet electrical parameters.
6	Thermal Shock	Temperature cycling from -40°C (30mins) to +85°C (30mins) was performed 3 times, then placed in a natural condition for 2 hours.	
7	Life Test (High Temperature)	Placed in a chamber (85 \pm 2°C) for 48 hours, then placed in a natural condition for 2 hours.	
8	Life Test (Low Temperature)	Placed in a chamber (-40 ±2°C) for 48 hours, then placed in a natural condition for 2 hours.	
9	Humidity	Placed in a chamber (Humi: 90% to 95% RH, Temp: 60 ±2°C) for 48 hours, then placed in a natural condition for 2 hours.	

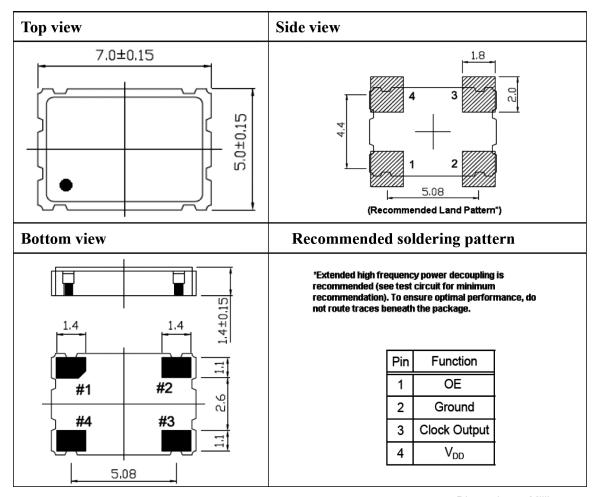
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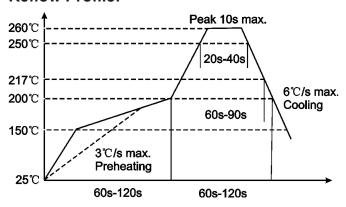


Dimensions:



Dimensions: Millimetres

Reflow Profile:



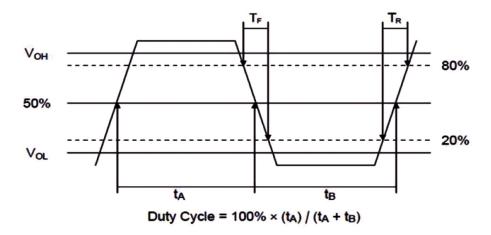
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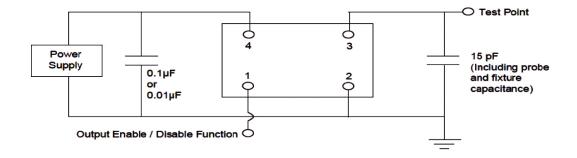
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Output Waveform



Test Circuit



Part Number Table

Description	Part Number	
Oscillator, 50MHz, SMD	MCOT7500003V300000RA	

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