Crystal Resonator

RoHS Compliant

Specifications:

General

Oscillation Mode	: AT, Fundamental
Nominal Frequency	: 25MHz
Load Capacitance	: 18pF
Storage Temperature	: -40°C to +85°C
Operable Temperature	: -20°C to +70°C

Electrical Performances

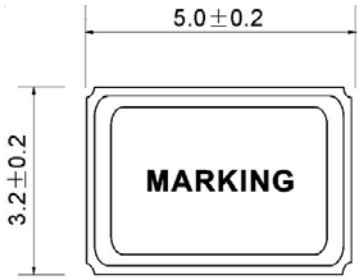
Frequency Stability	: ±30ppm at 25°C ±3°C
Temperature Characteristics	: ±30ppm from -20°C to +70°C
Series Resistance	: 40Ω max.
Load Resistance	: NA
Supply Current	: 100mA max.
Shunt Capacitance	: 5pF max.
Drive Level Nominal	: 100uW
Insulation Resistance	: 500MΩ at DC 100V
Aging	: ±3ppm / year

Physical and Environmental Parameters:

Description	Contents	Requirements
Vibration	10Hz to 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 Ability	Dipped the terminals no closer than 2mm into the solder bath at 240 ±5°C for 3 ±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 5 sec., placed in a natural condition for 2 hours.	Measured values shall meet electrical parameters.
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.	
Life Test (High Temperature)	Placed in a chamber (85 ±2°C) for 48 hours, then placed in a natural condition for 2 hours.	
Life Test (Low Temperature)	Placed in a chamber (-40 ±2°C) for 48 hours, then placed in a natural condition for 2 hours.	
Humidity	Placed in a chamber (Humidity : 90% to 95% RH, Temp: 60 ±2°C) for 48 hours, then placed in a natural condition for 2 hours.	

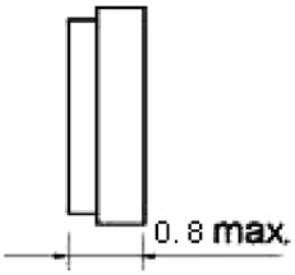
Dimensions

Top View



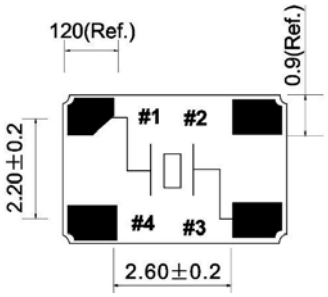
Unit : mm

Side View



Unit : mm

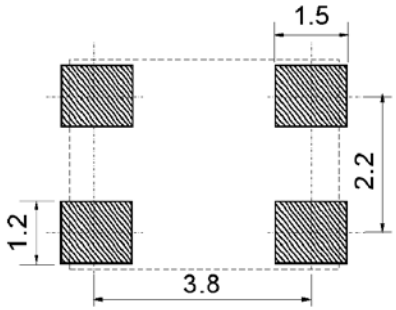
Bottom View



Marking #2 and #4 are connected to metal cap on top.

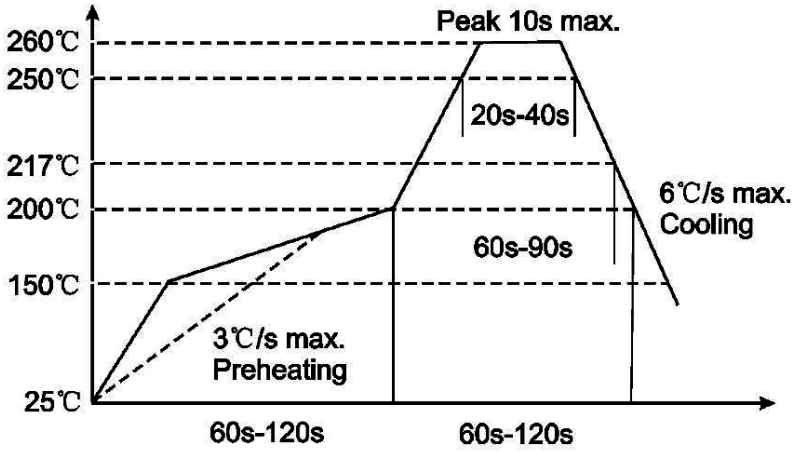
Unit : mm

Recommended soldering pattern



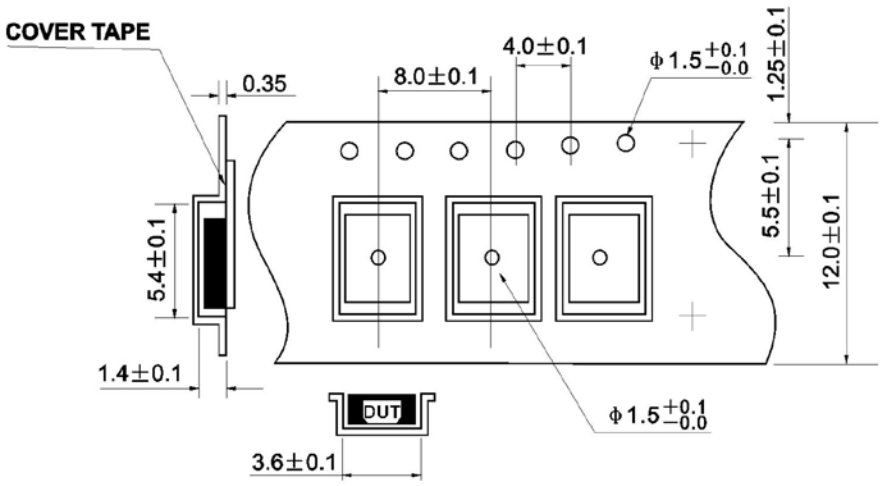
Unit : mm

Reflow Profile



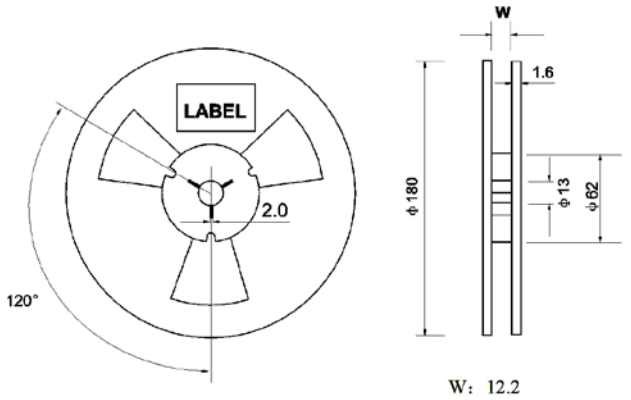
Packing Information

Tape Dimensions



Unit : mm

Reel



Unit : mm

Part Number Table

Description	Part Number
Crystal, 18pF 25MHz, SMD	MCRT525000F183000RU