

RoHS
Compliant



Specifications:

Electrical Parameters:

No	Description	Contents
1	Holder Type	MCRSD20000F183000RR
2	Nominal Frequency	20MHz
3	Oscillation Mode	AT-FUND
4	Load Capacitance	18pF
5	Frequency Tolerance at 25°C ±3°C	±30ppm
6	Frequency Tolerance in Operating Temperature Range	±30ppm
7	Operating Temperature Range	-20°C to +70°C
8	Storage Temperature Range	-40°C to +85°C
9	Equivalent Series Resistance	≤40Ω
10	Drive Level	≤100μW
11	Shunt Capacitance	≤5pF
12	Insulation Resistance	≥500MΩ
13	Test Impedance Meter	KH1200
14	Aging	±3ppm/Year

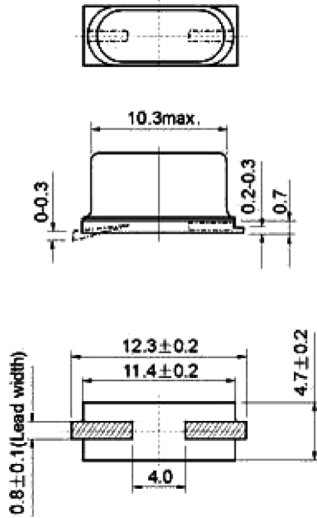
Physical & Environmental Parameters:

No	Description	Contents	Requirements
1	Lead Strength Lead Bending	Force of 0.9kg is applied for 10 ±1 seconds to each lead in axial direction. 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.	No mechanical damage and the measured values shall meet electrical parameters.
2	Vibration	10 ~ 500Hz, 0.75mm amplitude, in 3 directions duration of 2h. Measurement taken after 1 hour.	
3	Random Dropping	The crystal will be test by natural dropping to 3cm wooden board 3 times from high of 75cm.	
4	Solder Stability	Dipped the terminals no closer than 2mm into the solder bath at 235°C ±5°C for 2 ±0.5 sec.	At least 95% of the terminal surface shall be coated by the solder
5	Resistance Solder Heat	Use a 350°C ±10°C solder iron to touch device under test at the 2 ~ 2.5mm end part of lead for 10 ±1 seconds. Measurement taken after DUT being left at room temperature for at least 1 hours.	Measured values shall meet electrical parameters.
6	Temperature Cycle Shock	Temperature cycling from -40°C (30mins) to +85°C (30mins) was performed 3 times, then placed in a natural condition for 24 ±2 hours.	
7	Life Test (High Temperature)	Placed in a chamber (125°C ±2°C) for 72 hours, then placed in a natural condition for 24 ±2 hours.	
8	Life Test (Low Temperature)	Placed in a chamber (-55°C ±2°C) for 72 hours, then placed in a natural condition for 24 ±2 hours.	
9	Humidity	Placed in a chamber (Humi: 90% ~ 95% RH, Temp: 40°C ±2°C) for 96 hours, then placed in a natural condition for 24 ±2 hours.	

Crystal Resonator



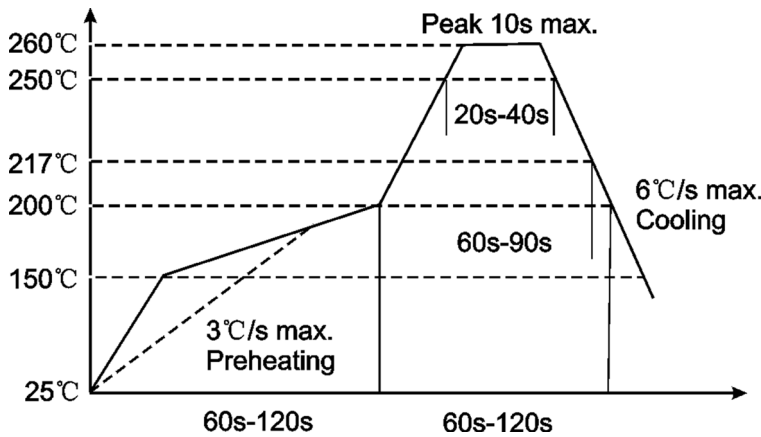
Dimensions:



Part Number	L Max.
MCRSD20000F183000RR	4.3

Dimensions : Millimetres

Reflow Profile:



Part Number Table

Description	Part Number
Crystal Resonator	MCRSD20000F183000RR

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