

Crystal Resonator



RoHS
Compliant



Specifications

Oscillation Mode : AT - Fundamental
Nominal Frequency : 20MHz
Load Capacitance : 18pF
Storage Temperature : -40°C to +125°C
Operable Temperature : -20°C to +70°C

Electrical Performance

Frequency Stability : ± 30 ppm at 25°C ± 3 °C
Temperature Characteristics : ± 30 ppm from -20°C to +70°C
Series Resistance : 30 Ω max.
Load Resistance : NA
Shunt Capacitance : 5pF max.
Drive Level Nominal : 100 μ W
Insulation Resistance : 500m Ω at DC 100V
Aging : ± 3 ppm/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 120 cm.	
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
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 -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 (Humi: 90% to 95% RH, Temp: 40 ± 2 °C) for 48 hours, then placed in a natural condition for 2 hours.	

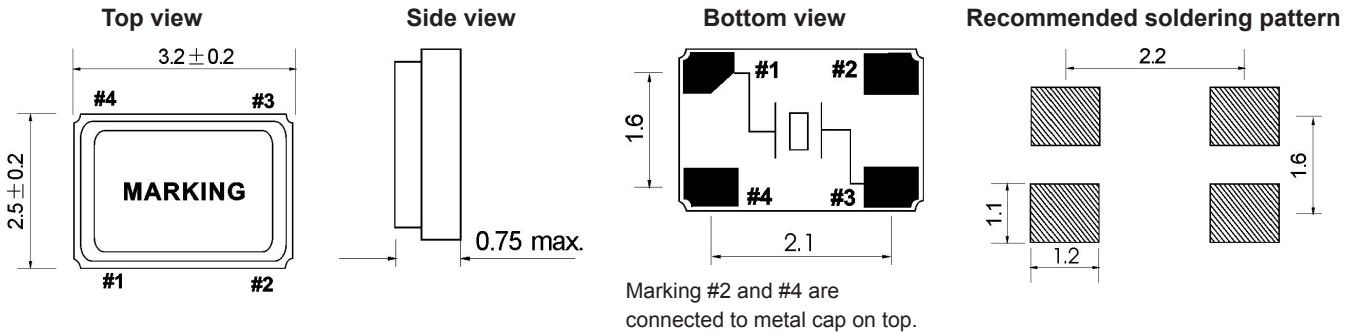
www.element14.com
www.farnell.com
www.newark.com



Crystal Resonator

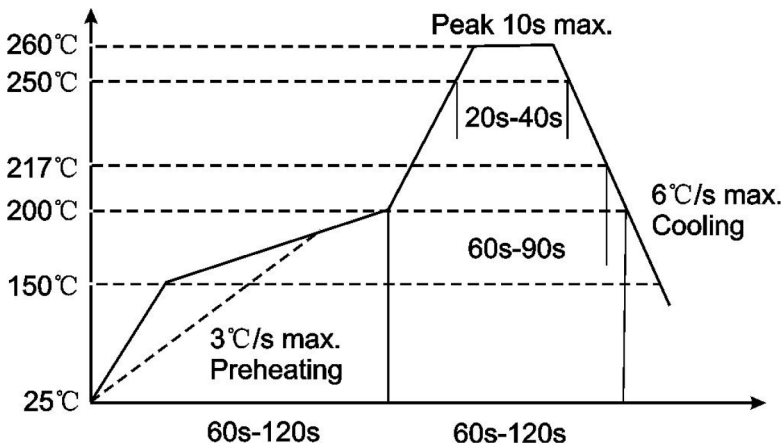


Dimensions



Dimensions : Millimetres

Reflow Profile



Part Number Table

Description	Part Number
Crystal Oscillator, Surface Mount, RT3 Series, 20MHz, 10ppm, SMD, 3.2mm × 2.5mm, 18pF	MCRT320000F183000RU

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.

www.element14.com
www.farnell.com
www.newark.com

