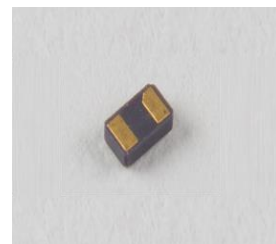


SERIES RT1610



● FEATURES

- SUITABLE FOR TIME OF DAY CLOCKS
- IDEAL FOR HIGH DENSITY PACKAGING APPLICATION
- SMALL AND COMPACT PACKAGE

● SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	32.768 kHz
MODE OF OSCILLATION	Fundamental
FREQUENCY TOLERANCE AT 25°C	±10 ppm, ±20 ppm
FREQUENCY STABILITY OVER TEMPERATURE COEFFICIENT	-0.045 ppm / °C ²
OPERATING TEMPERATURE RANGE	-40°C to +85°C
STORAGE TEMPERATURE RANGE	-55°C to +125°C
AGING	±3 ppm per year max
LOAD CAPACITANCE	6 pF, 9 pF, 12.5 pF*
EQUIVALENT SERIES RESISTANCE	90 kΩ max
SHUNT CAPACITANCE	2 pF max
DRIVE LEVEL	0.1 μw max
SHOCK RESISTANCE	±5 ppm max 75 cm drop test onto a hard wood surface

*Note: Other values available

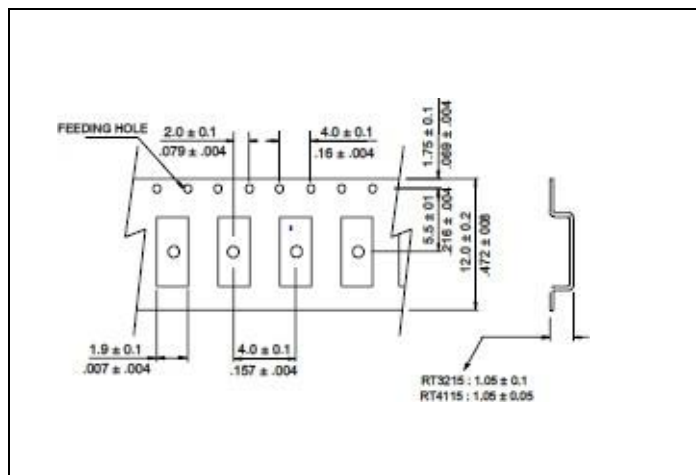
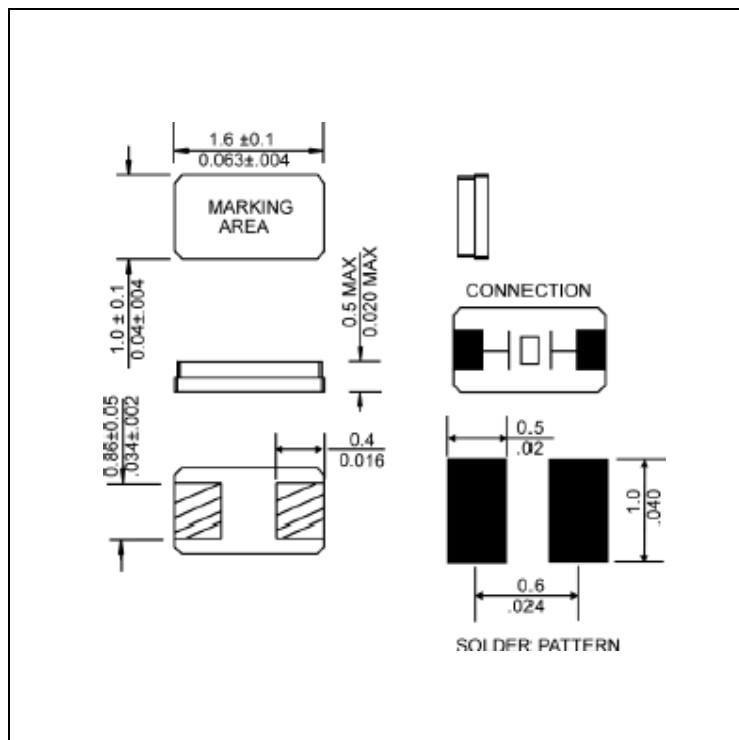
● PART NUMBERING SYSTEM

TYPE	-	FREQUENCY kHz	-	LOAD CAPACITANCE pF	-	TOLERANCE ppm	-	TAPE & REEL
RT1610	-	32.768	-	6, 9 or 12.5	-	Blank for ±20 ppm 10 for ±10 ppm	-	TR

EXAMPLE: RT1610-32.768-12.5-TR

Surface Mount Tuning Fork Crystal, 1.6 mm x 1.0 mm Package, 32.768 kHz, 12.5 pF Load, ±20 ppm Tolerance, Operating Temperature from -40°C to +85°C, Tape and Reel Packaging

MECHANICAL SPECIFICATION

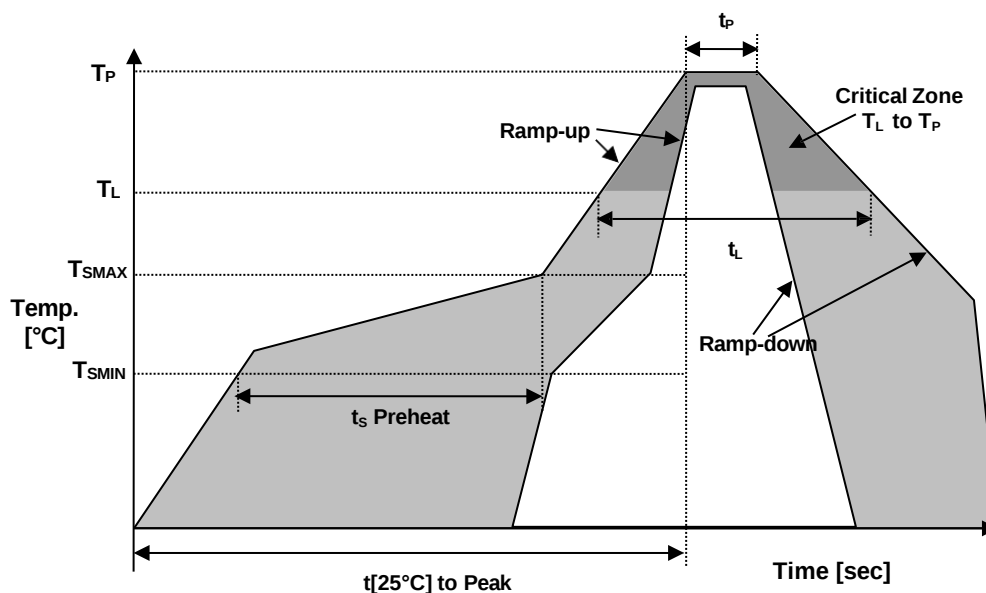


NOTE: REFER TO EIA-481 FOR DIMENSIONS

PACKAGING

180 mm REEL DIAMETER
12 mm TAPE WIDTH, 4mm PITCH
QUANTITY: 3000 PIECES PER REEL

REFLOW PROFILE



Reflow profile (Reference IPC/JEDEC J-STD-020)		
Temperature Min Preheat	T _{SMIN}	150°C
Temperature Max Preheat	T _{SMAX}	200°C
Time (T _{SMIN} to T _{SMAX})	t _s	60-180 sec.
Temperature	T _L	217°C
Peak Temperature	T _P	260°C
Ramp-up rate	R _{UP}	3°C/sec max.
Ramp-down rate	R _{DOWN}	6°C/sec max.
Time within 5°C of Peak Temperature	t _p	10 sec.
Time t[25°C] to Peak Temperature	t[25°C] to Peak	480 sec.
Time	t _L	60-150 sec.

ENVIRONMENTAL

PARAMETER	VALUE
MOISTURE SENSITIVITY LEVEL	1
RoHS	COMPLIANT
REACH SVHC	COMPLIANT
HALOGEN-FREE	COMPLIANT
TERMINATION FINISH	Au
UNIT WEIGHT (GRAMS)	0.051



November 2020

Raltron Electronics/RAMI Technology USA, LLC, including its affiliates, employees, agents and other persons acting on its behalf (collectively Raltron/RAMI Tech), disclaim any and all liability for any errors or inaccuracies contained in this data sheet. While Raltron/RAMI Tech has made every reasonable effort to ensure the accuracy of all product information, specifications and data contained herein, Raltron/RAMI Tech does not guarantee that the information is accurate, reliable or current. The product information is provided for reference purposes only and is subject to change, correction or revision, at any time without notice. Raltron/RAMI Tech does not assume any liability arising out of an application or use of any product described herein and disclaims any warranties expressed or implied. The user of products in such applications shall assume all risks of such use and will agree to hold Raltron/RAMI Tech, harmless against all damages.