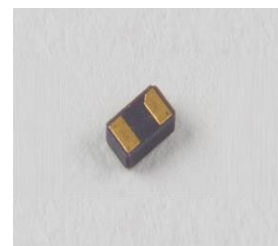


### SERIES RT1610



#### ● 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 <sup>2</sup>
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

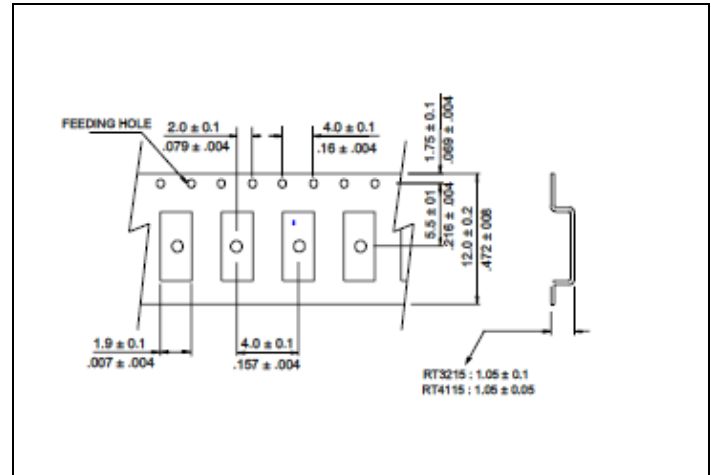
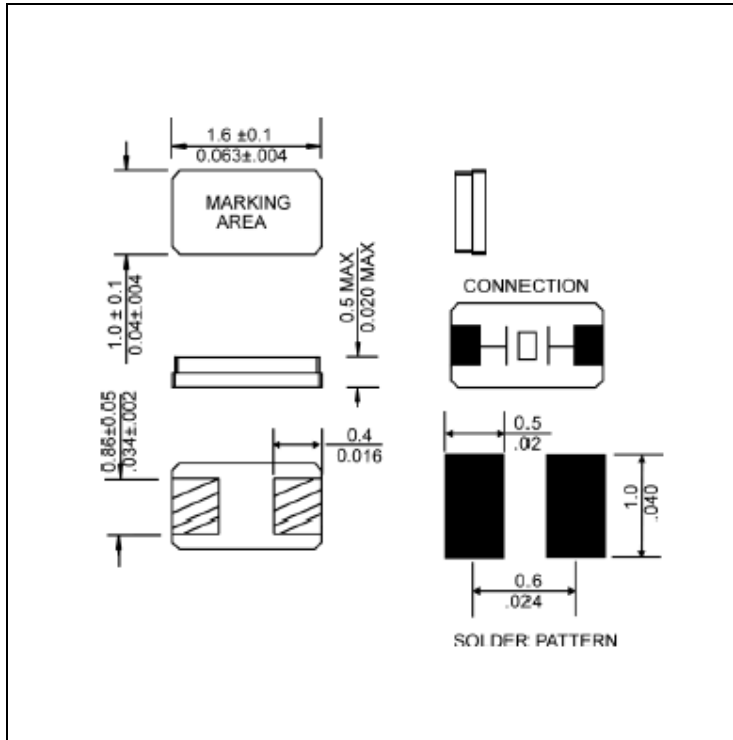
#### ● PART NUMBERING SYSTEM

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**

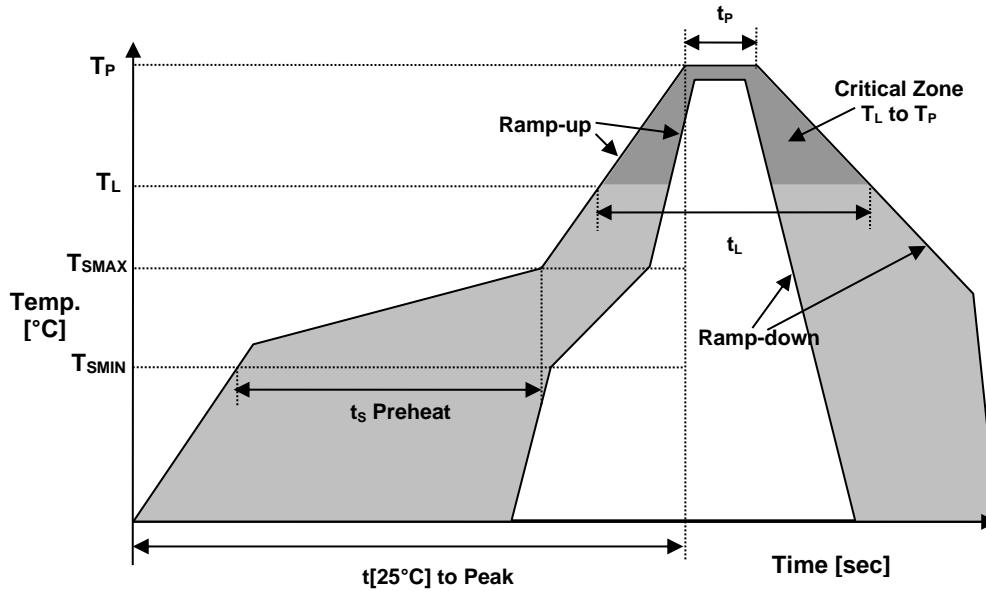


NOTE: REFER TO EIA-481 FOR DIMENSIONS

● **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 $t[25^\circ\text{C}]$ to Peak Temperature	$t[25^\circ\text{C}]$ 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

