

SERIES RRT3215

❖ **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	±5, ±10, ±20 ppm
FREQUENCY STABILITY OVER TEMPERATURE COEFFICIENT	-0.04 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	6pF, 7pF, 9pF, 12.5 pF*
EQUIVALENT SERIES RESISTANCE	65 kΩ max
SHUNT CAPACITANCE	1.1 pF typ
DRIVE LEVEL	0.5 μW MAX
SHOCK RESISTANCE	±5 ppm max 75 cm drop test onto a hard wood surface
REFLOW CONDITIONS	260°C for 10s max

*Note: Other values available

❖ **PART NUMBERING SYSTEM**

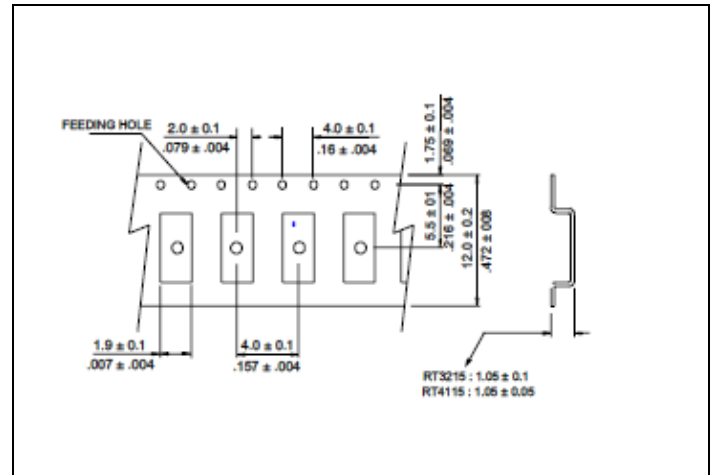
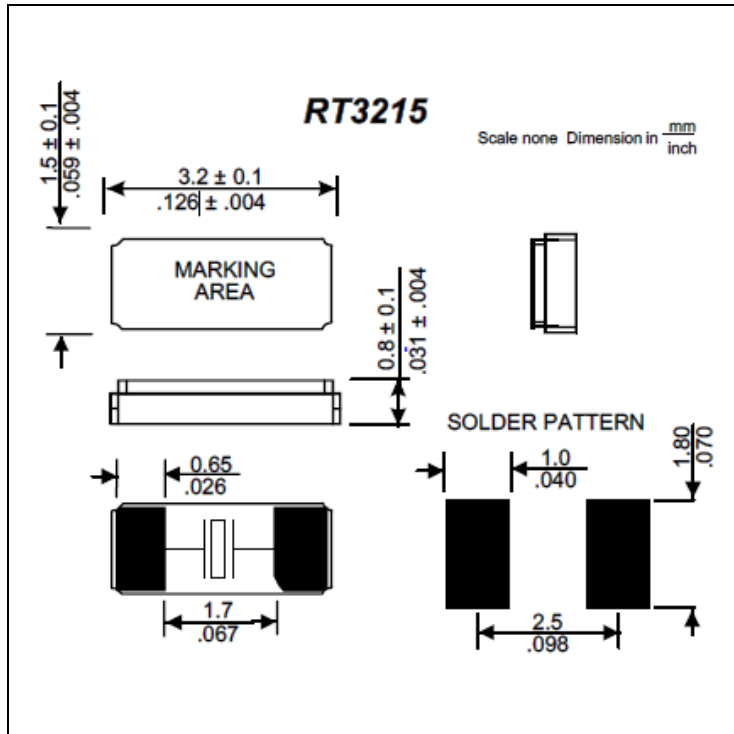
TYPE	-	FREQUENCY kHz	-	LOAD CAPACITANCE pF	-	TOLERANCE PPM	-	TAPE & REEL
RRT3215	-	32.768	-	6, 7, 9 or 12.5	-	5, 10 or 20	-	TR

EXAMPLE: RRT3215-32.768-12.5-20-TR

Surface Mount Tuning Fork Crystal, 3.2 mm x 1.5 mm package, 32.768 kHz, 12.5 pF load, ±20 ppm Tolerance, Operating Temperature from -40°C to +85°C, Tape and Reel packaging

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❖ **MECHANICAL SPECIFICATION**

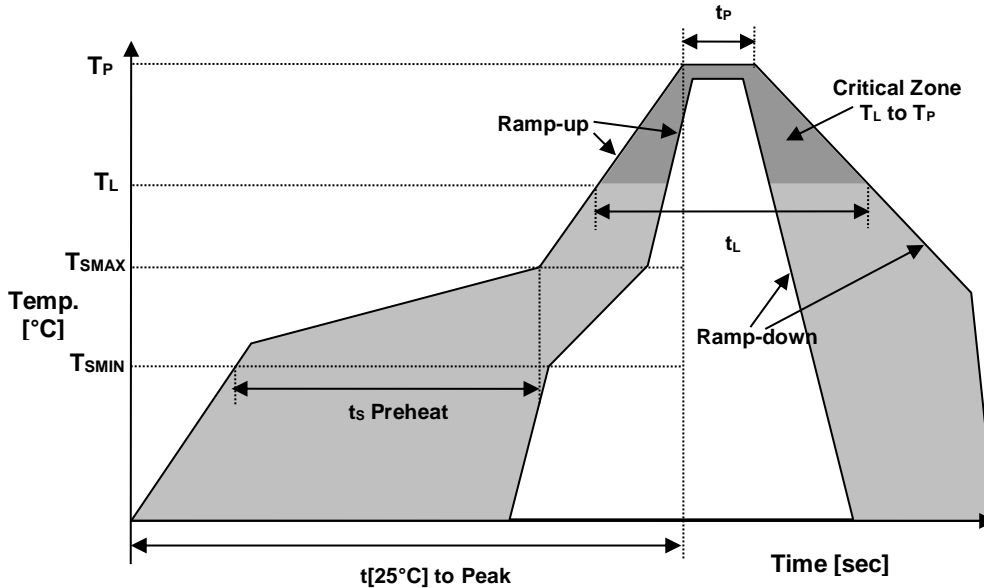


NOTE: REFER TO EIA-481 FOR DIMENSIONS

❖ **PACKAGING**

180 mm REEL DIAMETER
 12 mm TAPE WIDTH, 4mm PITCH
 QUANTITY: 3000 PIECES PER REEL
 IN ACCORDANCE WITH EIA-481

❖ 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 $t_{[25^\circ\text{C}] \text{ to Peak}}$	$t_{[25^\circ\text{C}] \text{ to Peak}}$	480 sec.
Time	t_L	60-150 sec.

❖ ENVIRONMENTAL

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

