

SERIES RT2012B



● FEATURES

- ULTRA SMALL PACKAGE
- 32.768 kHz
- PRECISION SEALED UNIT

● SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	32.768 kHz
MODE OF OSCILLATION	Fundamental
FREQUENCY TOLERANCE AT 25°C ± 3°C	±20 ppm*
FREQUENCY STABILITY OVER TEMPERATURE COEFFICIENT	-0.04 ppm / °C ² max
OPERATING TEMPERATURE RANGE	-40°C to +85°C
STORAGE TEMPERATURE RANGE	-55°C to +125°C
AGING AT 25°C ± 3°C	±3 ppm first year max
INSULATION RESISTANCE AT 100 VDC	500 MΩ
MOTIONAL CAPACITANCE	4 fF typ
CAPACITANCE RATIO	200
LOAD CAPACITANCE	9 pF to 12.5 pF
EQUIVALENT SERIES RESISTANCE	75 kΩ max
SHUNT CAPACITANCE	1.5 pF max
DRIVE LEVEL	0.1 μw max
SHOCK RESISTANCE	±5 ppm max 75 cm drop test in 3 axes onto a hard surface

Note: * Contact the factory for other tolerances.

● PART NUMBERING SYSTEM

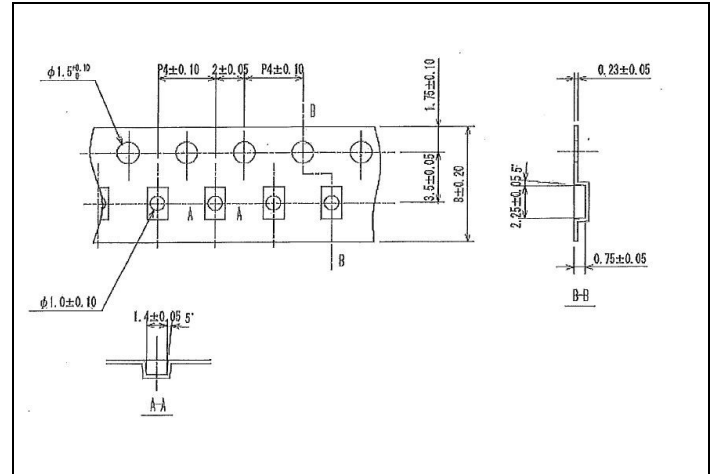
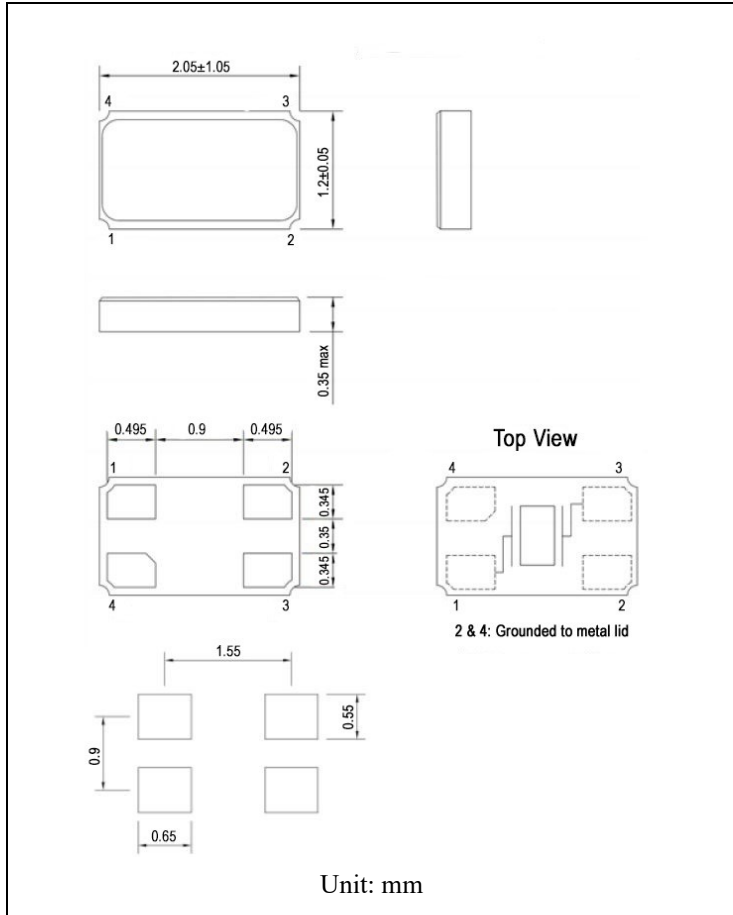
TYPE	-	FREQUENCY kHz	-	LOAD CAPACITANCE pF	-	TOLERANCE ppm	-	TAPE & REEL
RT2012B	-	32.768	-	9 to 12.5	-	Blank for ±20 ppm	-	TR

EXAMPLE: RT2012B-32.768-12.5-TR

Surface Mount Tuning Fork Crystal, 2.0 mm x 1.2 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

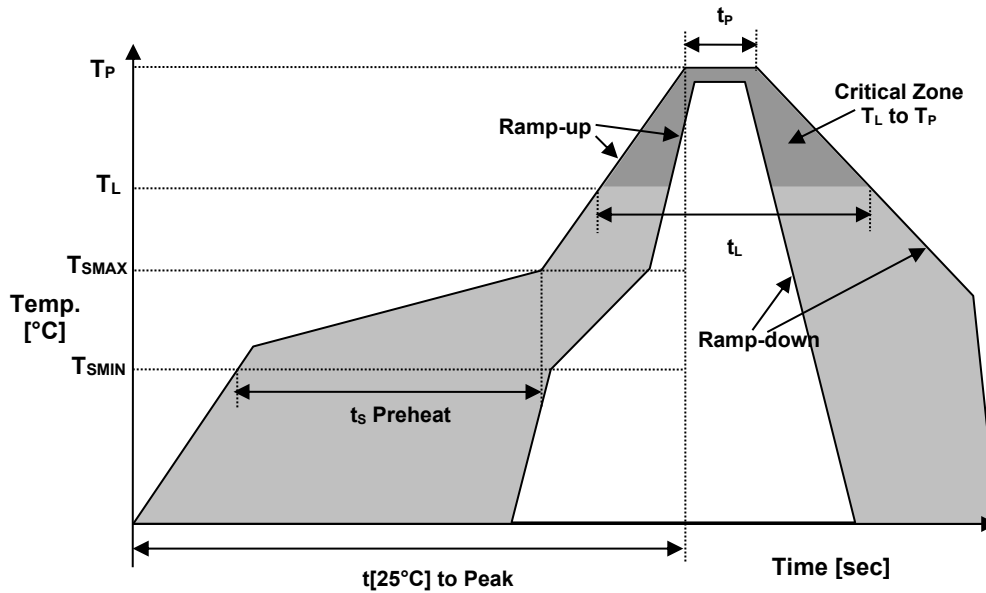


NOTE: REFER TO EIA-481 FOR DIMENSIONS

PACKAGING

- 180 mm REEL DIAMETER
- 8 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

