

**SERIES RRSE H14**



**◆ FEATURES**

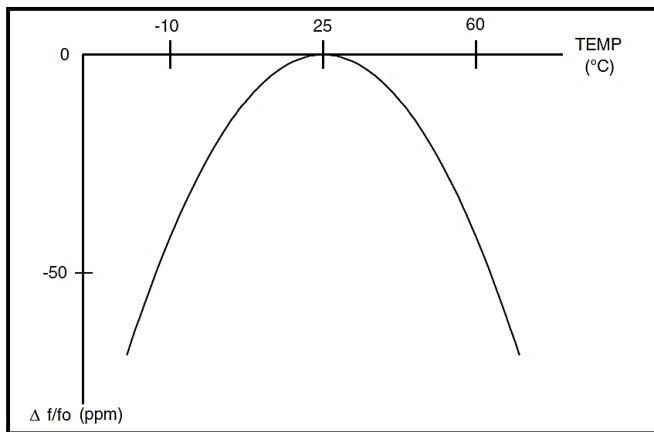
- SUITABLE FOR TIME OF DAY CLOCK APPLICATIONS
- LOW PROFILE 1.4mm HEIGHT
- EXCELLENT FOR AUTOMATIC AND HIGH DENSITY SURFACE MOUNTING

**◆ SPECIFICATIONS**

PARAMETER	VALUE
NOMINAL FREQUENCY	32.768 kHz
FREQUENCY TOLERANCE AT 25°C	±20 ppm max ±5 ppm, ±10 ppm available
TURNOVER TEMPERATURE	+25 ±5 °C
TEMPERATURE COEFFICIENT	-0.035 ± 0.01 ppm/°C <sup>2</sup>
LOAD CAPACITANCE	6 to 12.5 pF
EQUIVALENT SERIES RESISTANCE	65 kΩ max
SHUNT CAPACITANCE	0.8 pF typ
AGING	±3 ppm per year max
DRIVE LEVEL	0.1µW typ, 1µW max
INSULATION RESISTANCE	500 MΩ max
OPERATING TEMPERATURE RANGE	-40°C to +85°C
STORAGE TEMPERATURE RANGE	-40°C to +125°C



**◆ FREQUENCY VS. TEMPERATURE CURVE**



**◆ PART NUMBERING SYSTEM**

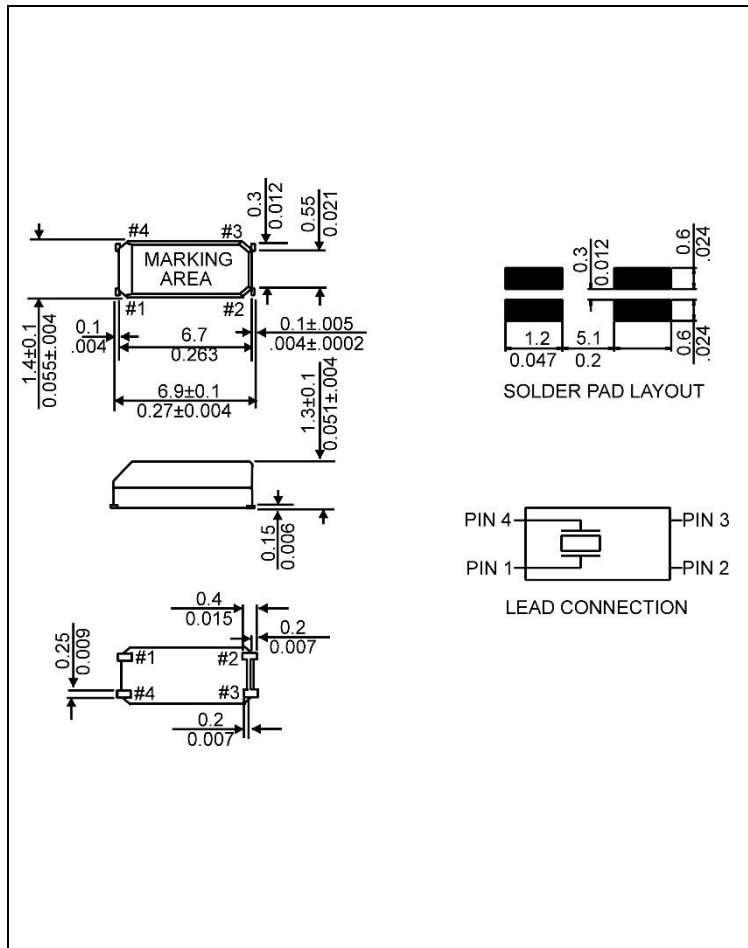
TYPE	-	FREQUENCY	-	LOAD CAPACITANCE	-	HOLDER	-	TAPE & REEL	-	TOLERANCE
RRSE	-	32.768	-	6 to 12.5 pF	-	H14	-	TR	-	Blank for ±20ppm 5PPM for ±5ppm 10PPM for ±10ppm

**EXAMPLE: RRSE-32.768-12.5-H14-TR-10PPM**

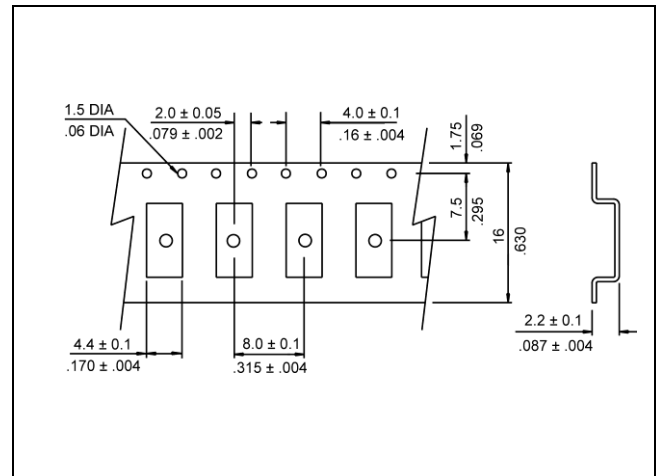
Surface Mount Tuning Fork Crystal RSE H14, 32.768 kHz, 12.5 pF Load Capacitance, ±10ppm Tolerance

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❖ **MECHANICAL SPECIFICATION**



❖ **CARRIER TAPE DIMENSIONS**

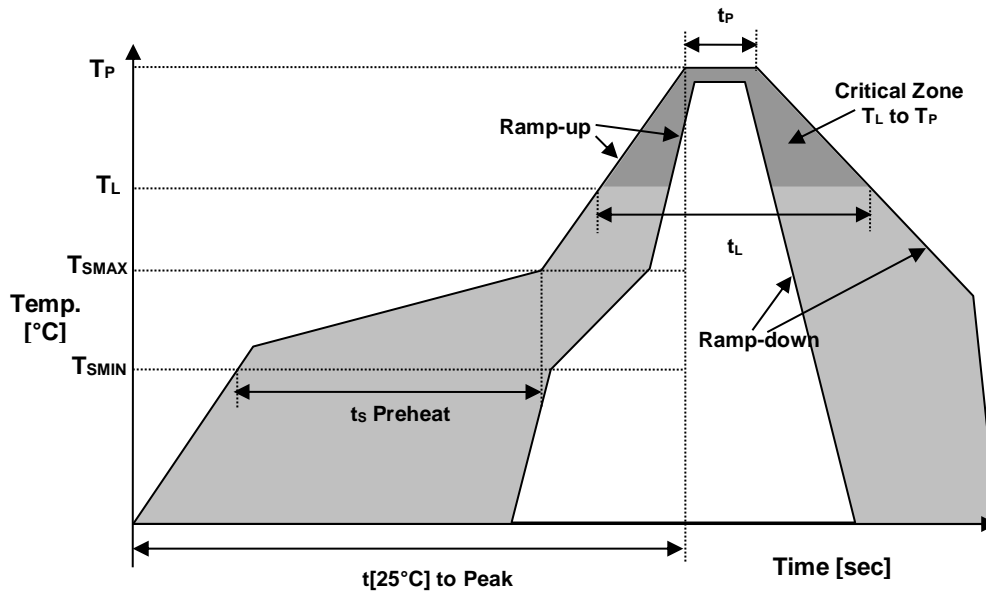


NOTE: REFER TO EIA-481 FOR NON-SPECIFIED DIMENSIONS

● **PACKAGING**

- 180 mm REEL DIAMETER
- 16 mm TAPE WIDTH, 8 mm PITCH
- QUANTITY: 3000 PIECES PER REEL

❖ REFLOW PROFILE



Reflow profile		
Temperature Min Preheat	T <sub>SMIN</sub>	150°C
Temperature Max Preheat	T <sub>SMAX</sub>	200°C
Time (T <sub>SMIN</sub> to T <sub>SMAX</sub> )	t <sub>s</sub>	60-180 sec.
Temperature	T <sub>L</sub>	217°C
Peak Temperature	T <sub>P</sub>	260°C
Ramp-up rate	R <sub>UP</sub>	3°C/sec max.
Ramp-down rate	R <sub>DOWN</sub>	6°C/sec max.
Time within 5°C of Peak Temperature	t <sub>p</sub>	10 sec.
Time t[25°C] to Peak Temperature	t[25°C] to Peak	480 sec.
Time	t <sub>L</sub>	60-150 sec.

❖ ENVIRONMENTAL

PARAMETER	VALUE
RoHS	COMPLIANT
REACH SVHC	COMPLIANT
HALOGEN-FREE	COMPLIANT
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Sn

