

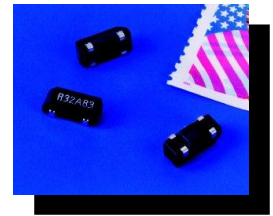
● **FEATURES**

- SUITABLE FOR TIME OF DAY CLOCKS
- SMALL AND COMPAK PACKAGE
- IDEAL FOR PICK AND PLACE ASSEMBLY



● **SPECIFICATIONS**

PARAMETER	VALUE
NOMINAL FREQUENCY	32.768 KHz
FREQUENCY TOLERANCE AT 25°C	±20 PPM MAXIMUM
TURNOVER TEMPERATURE	+25°C ±5°C
PARABOLIC CURVATURE CONSTANT	(-0.034 ±0.006) PPM/°C <sup>2</sup>
OPERATING TEMPERATURE RANGE	-10°C TO +60°C (STANDARD)
	-40°C TO +85°C (EXTENDED)
STORAGE TEMPERATURE RANGE	-55°C TO +125°C
AGING (FIRST YEAR)	±3 PPM MAXIMUM
LOAD CAPACITANCE	6, 7, 8, 9 OR 12.5 pF
EQUIVALENT SERIES RESISTANCE	50K OHMS MAXIMUM
SHUNT CAPACITANCE	1.35 pF TYPICAL
MOTIONAL CAPACITANCE	0.003 pF TYPICAL
CAPACITANCE RATIO	450 TYPICAL
DRIVE LEVEL	1 μW MAXIMUM
INSULATION RESISTANCE	500 MOHM MINIMUM
SHOCK RESISTANCE	±5 PPM MAXIMUM 75 cm DROP TEST ONTO A HARD SURFACE OR 3000 g X 0.3 ms X ½ SINEWAVE IN 3 AXES
REFLOW CONDITIONS	260°C ±5°C FOR 10s MAXIMUM



■ **PART NUMBERING SYSTEM**

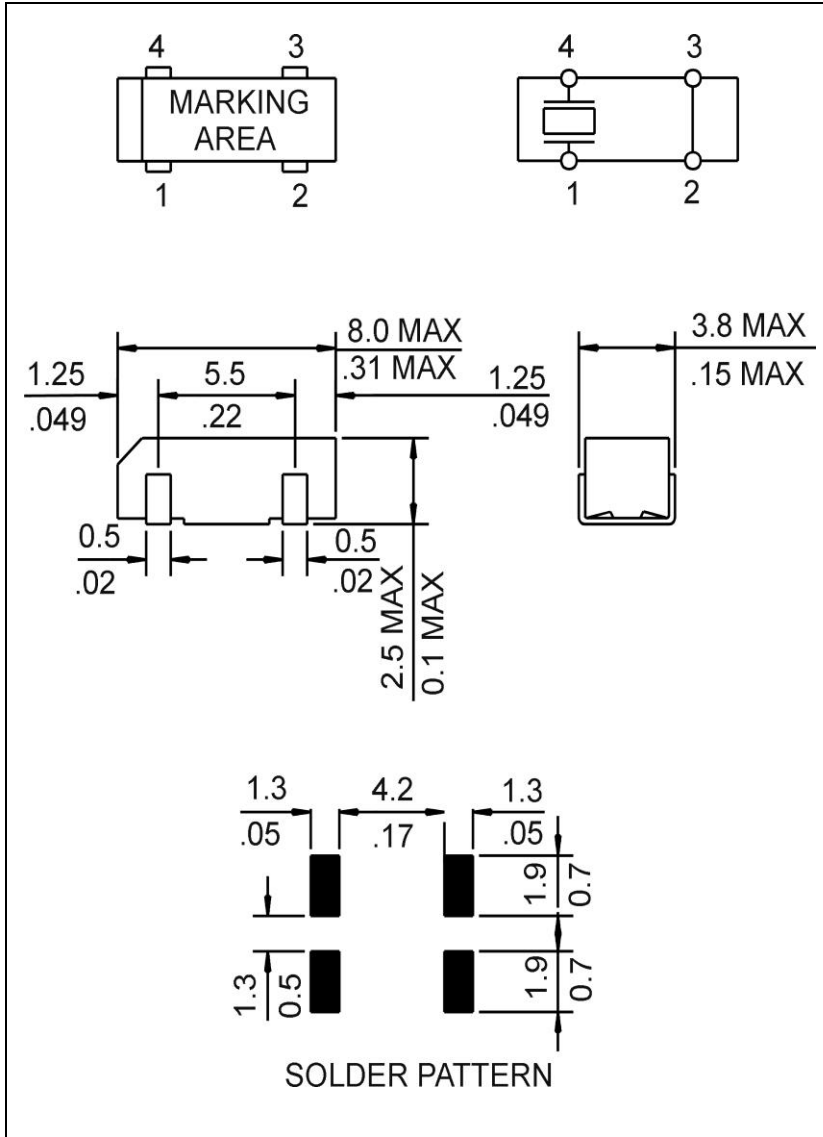
TYPE	-	FREQUENCY IN KHz	-	LOAD CAPACITANCE (pF)	-	TAPE & REEL
RSM200S	-	32.768	-	6 to 12.5	-	TR

**EXAMPLE: RSM200S-32.768-12.5-TR**

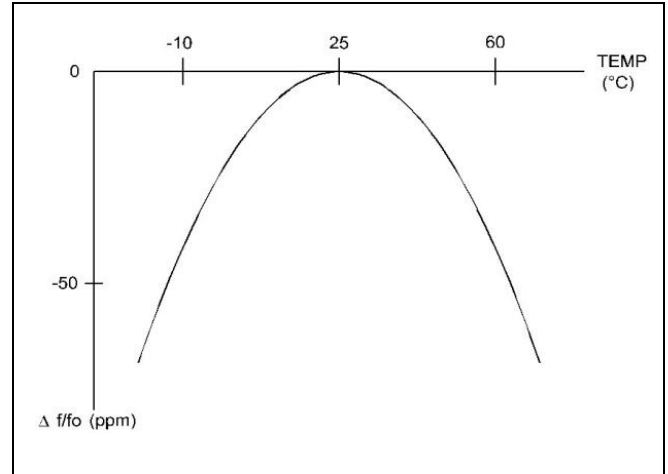
Surface Mount Tuning Fork Crystal, 8.0 x 3.8 mm, 32.768 KHz, 12.5 pF load, ±20 ppm Tolerance, from -40°C to +85°C, Tape and reel packaging

### SERIES RSM200S

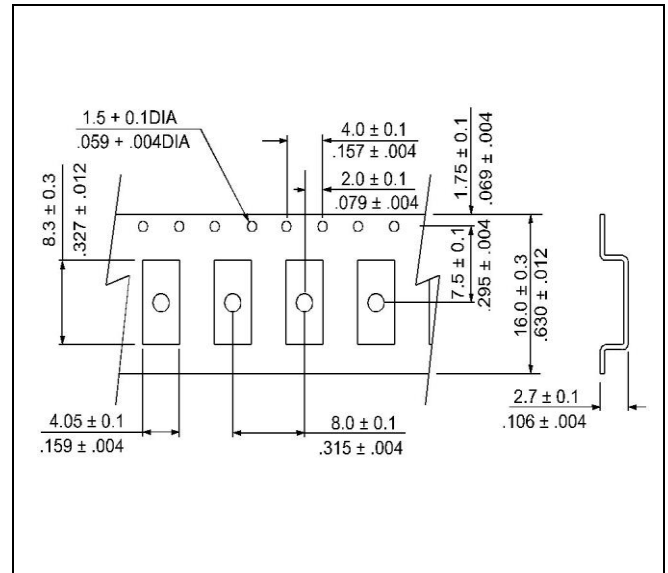
#### MECHANICAL SPECIFICATION



#### FREQUENCY vs. TEMPERATURE CURVE



#### CARRIER TAPE DIMENSIONS



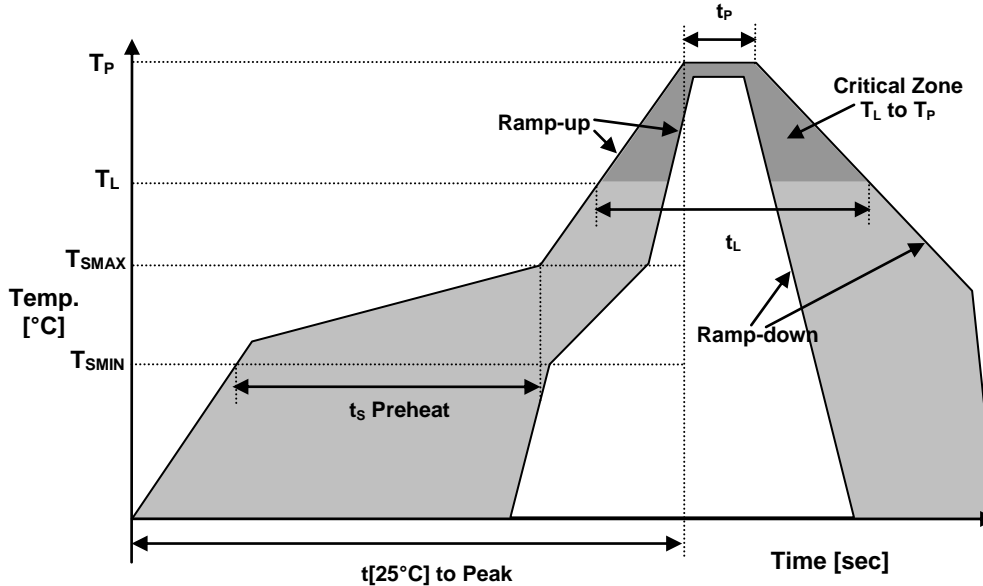
NOTE REFER TO eia-481 FOR NON-SPECIFIED DIMENSIONS

#### PACKAGING

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

IN ACCORDANCE WITH EIA-481

● REFLOW PROFILE



Reflow profile		
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	5/6 – EXEMPTION 7A
REACH SVHC	COMPLIANT
HALOGEN-FREE	COMPLIANT
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Sn
UNIT WEIGHT (GRAMS)	0.14

