SERIES R38

- **FEATURES**
  - DESIGNED FOR TIME OF DAY CLOCKS APPLICATIONS
  - SMALL COMPACT SIZE WITH PERFORMANCE AND ECONOMY
  - EXCELLENT SHOCK AND ENVIRONMENTAL CHARACTERISTICS

RoHS Compliant

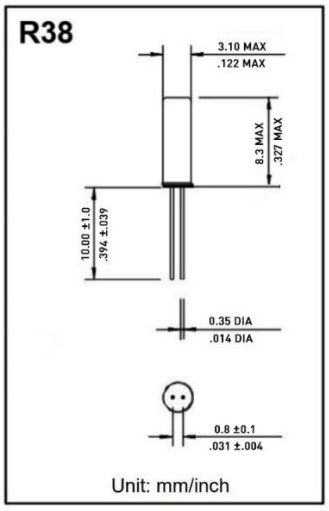
- **SPECIFICATIONS**

PARAMETERS	VALUE
NOMINAL FREQUENCY	32.768 kHz
FREQUENCY TOLERANCE	±20 ppm Standard
	±5 ppm and ±10 ppm Available
TURNOVER TEMPERATURE	25°C ±5°C
PARABOLIC CURVATURE CONSTANT (TYP)	-0.034±0.006 ppm/°C²
LOAD CAPACITANCE	6 to 12.5 pF
EQUIVALENT SERIES RESISTANCE (MAX)	30 kΩ
DRIVE LEVEL (MAX)	1.0 µW
MOTIONAL CAPACITANCE (TYP)	0.0035 pF
SHUNT CAPACITANCE (TYP)	1.6 pF
CAPACITANCE RATIO (TYP)	460
AGING (FIRST YEAR MAX)	±3 ppm
QUALITY FACTOR (TYP)	60000
INSULATION RESISTANCE (MIN)	500 MΩ
OPERATING TEMPERATURE RANGE	-40°C to +85°C
STORAGE TEMPERATURE RANGE	-40°C to +85°C
SHOCK RESISTANCE	±5 ppm max 75 cm drop test in 3 axes onto a hard surface

SCALE NONE DIMENSION IN mm/INCH

Notes: **FREQUENCY DEVIATION AT T IS GIVEN AS: Δ f/f = K (To - T) ², WHERE K IS PARABOLIC CURVATURE CONSTANT**

- **MECHANICAL SPECIFICATION**



- **PART NUMBERING SYSTEM**

TYPE	-	FREQUENCY kHz	-	LOAD CAPACITANCE pF	-	TOLERANCE ppm
R38	-	32.768	-	6 to 12.5	-	Blank: ±20 ppm 5: ±5 ppm 10: ±10 ppm

EXAMPLE: R38-32.768-6-10

Tuning Fork Crystal 3x8 mm,32.768 kHz,6 pF,±10 ppm