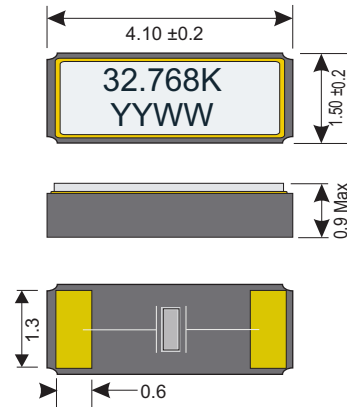




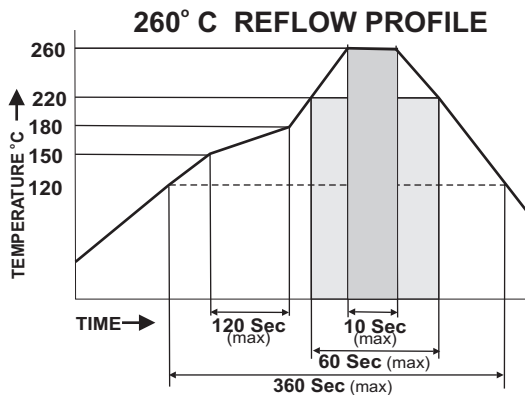
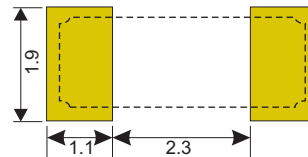
### Specifications

Part Number / Package		TFC4R
Frequency (fo)		32.768kHz
Mode		Tuning Fork (Flexure)
Frequency Stability	Calib. Tol. @ 25°C	±20ppm
	Temp. Coefficient	-0.034 ±0.006ppm/°C
	Aging @25°C ±3°C	±3ppm Max
Temp. Range	Turnover (T <sub>o</sub> )	25°C ±5°C
	Operating (TOPR)	-40°C ~ +85°C
	Storage (TSTG)	-55°C ~ +125°C
Drive Level (DL)		1.0 μW Max
Q		68,000 Typ.
Capacitance	MOTIONAL (C <sub>i</sub> )	2.0fF Typ.
	Load (C <sub>L</sub> )	12.5pF
	Shunt (C <sub>o</sub> )	1.1pF Typ.
	Ratio (r)	550 Typ.
Resistance	Insulation (I <sub>R</sub> )	500MΩ Min
	Shock	±5ppm Max
	Motional Series (R <sub>1</sub> )	70KΩ Max

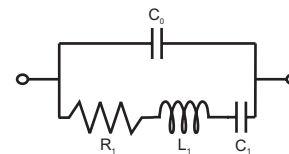
### Dimensions (mm)



### Recommended Pad (mm)



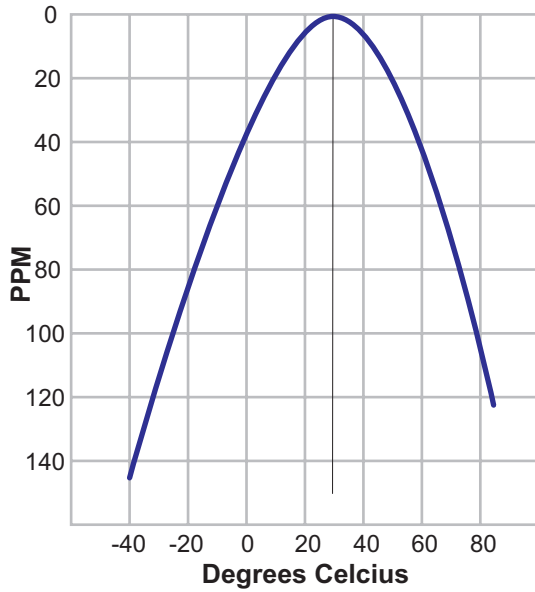
### Equivalent Circuit



- C<sub>o</sub> Shunt Capacitance
- R<sub>1</sub> Equivalent Series Resistance
- L<sub>1</sub> Motion Inductance
- C<sub>1</sub> Motion Capacitance



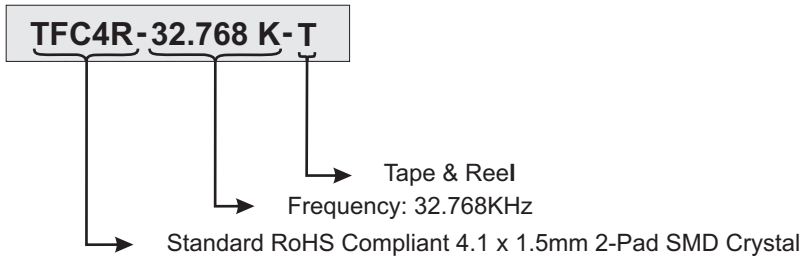
### Frequency Vs Temperature



### Environmental And Mechanical

<b>Temperature</b>	10 Cycles of -30°C (30Mins), Normal (1Hr), 85°C (30Mins), Normal (1Hr)
<b>Shock</b>	Accelerated at 1000G for 1mS in each perpendicular axis.
<b>Vibration</b>	4 Cycles of 20G acceleration at 20 - 2,000Hz within 4 Minutes in each perpendicular axis.
<b>Solder</b>	Peak Temperature of 260°C Max for 10 Seconds with preheat of 160°C for 90±10% for 10 Seconds for a Maximum of 2 Cycles.

### Part Number



Example: **TFC4R-32.768K-T** 32.768KHz, ±20ppm Crystal operating at -40°C ~ +85°C with 12.5pF Load Capacitance, delivered on Tape & Reel

### Tape & Reel

