

## 3.2 x 1.5 x 0.9mm Ultra-miniature 32.768kHz Crystal

- Frequency 32.768kHz
- Ultra-miniature package: 3.2 x 1.5 x 0.75mm
- Low mass, rugged construction
- Packaged in standard EIA tape and reel



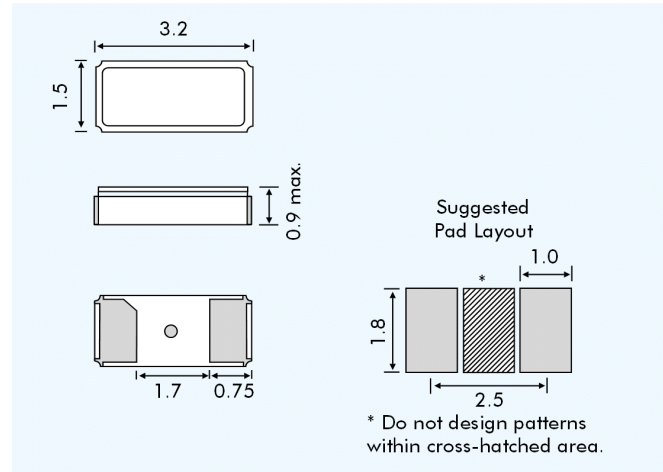
### DESCRIPTION

EQ156 crystals provide 32.768kHz in an ultra-miniature package. The part is designed to provide the smallest possible component size for real-time clock applications. Their miniature size and rugged construction make them ideal for battery powered, hand-held equipment.

### SPECIFICATION

Nominal Frequency:	32.7680kHz
Calibration Tolerance at 25°C:	±20ppm
Operating Temperature Range:	-40 to +85°C
Storage Temperature Range:	-55 to +125°C
Load Capacitance (CL):	12.5pF or 7.0pF
Motional Capacitance (C1):	3.6fF typical
Shunt Capacitance (C0):	1.0pF typical
Equivalent Series Resistance (ESR):	70k Ohms
Drive level:	0.5 micro Watt maximum
Temperature Coefficient:	-0.04/°C <sup>2</sup> maximum
Turnover Temperature:	+25°±5°C
Ageing:	±3ppm per year
Insulation Resistance:	500 MOhm minimum @100VDC
Crystal Cut:	X Cut
Reflow Soldering:	10s maximum at 260°C twice or 180s at 230°C, once.
Packaging:	EIA tape and reel

### OUTLINE & DIMENSIONS



### PART NUMBERS AND SPECIFICATION

Frequency (kHz)	CL (pF)	Stock Number	Tolerance (±ppm)/Temp. Range (°C)/Max. ESR (Ohms)
32.7680	12.5	PH32768F	20/-40+85/80k
32.7680	7.0	PH32768G	20/-40+85/80k

### STABILITY OVER TEMPERATURE X-Cut Crystal

