

3.2 x 1.5 x 0.9mm Ultra-miniature SMD

32.768kHz

2.5 * Do not design patterns within cross-hatched area.

- Frequency 32.7680kHz
- Ultra-miniature package: 3.2 x 1.5 x 0.9mm
- Low mass, rugged construction
- Packaged in standard EIA tape and reel

DESCRIPTION

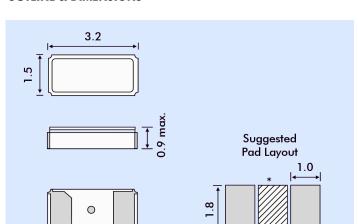
EQ156 crystals provide 32.768kHz in an ultra-miniature package. The part is designed to provide the smallest possible component size for real-time clock applications. Their miniature size and rugged construction make them ideal for battery powered, hand-held equipment.

SPECIFICATION

Nominal Frequency:	32.7680kHz	
Calibration Tolerance at 25°C:	±20ppm	
Operating Temperature Range:	-40 to +85°C	
Storae 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/°C2 maximum	
Turnover Temperature:	+25°±5°C	
Ageing:	±3ppm per year	
Insulation Resistance:	500MΩ 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

1.7

