

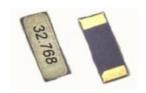
### X4918 SERIES CRYSTALS

## 4.9 x 1.8 x 1.0mm Miniature SMD

32.768kHz

- Ultra-miniature ceramic package 4.9 x 1.8 x 1.0mm
- RoHS compliant and lead free
- Low ageing, high shock and vibration resistance
- Uses include battery operated equipment





#### **DESCRIPTION**

X4918 crystals provide 32.768kHz in an ultra-miniature package. The part is designed to provide a small component size for real-time clock applications. The micro-miniature size and rugged construction make them ideal for real time clocks and battery powered, hand-held equipment.

#### **SPECIFICATION**

Nominal Frequency: 32.7680kHz
Calibration Tolerance at 25°C: ±20ppm

±30ppm (standard)

±50ppm

Crystal Cut: XY-cut

Load Capacitance (CL): 12.5pF, 9.0pF or 7.0pF Equivalent Series Resistance (ESR):  $65k\Omega$  typical,  $70k\Omega$  max.

Drive level: 1.0µW max.

Temperature Coefficient: -0.034ppm/°C2 (Parabolic)

Turnover Temperature: +25°±5°C

Quality Factor: 40,000 min.

Shunt Capacitance: 1.3pF typical

Motional Capacitance: 21fF typical

Capacitance Ration: 619 typical

Ageing: ±3ppm/year max.

Insulation Resistance: 500MΩ minimum @100VDC

Operating Temperature Range: -40° to +85°C Storage Temerature Range: -55° to +125°C

Reflow Soldering: 10s max. at 250°C ±10°C
Shock Resistance: ±5ppm max, free drops x3 from

75cm height onto hard wood

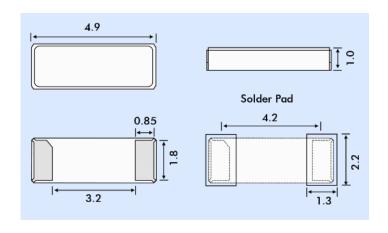
surface.

Packaging: 12.0mm EIA tape, 4.0mm pitch,

180mm diameter reel, 3k

pieces/reel

#### **OUTLINE & DIMENSIONS**



#### PART NUMBER AND SPECIFICATION

Order part number: 32.768kHz X4918/30/--/-40+85/12.5pF

This provides a 32.768kHz crystal in X4918 package with ±20ppm calibration tolerance at 25°C, temperature stability according to the above parabolic coefficient at a load capacitance of 12.5pF.

Options:

Calibration Tolerance: ±20ppm

±30ppm (standard)

±50ppm

Load Capacitance: 7.0pF

9.0pF

12.5pF (standard)

# STABILITY OVER TEMPERATURE X-Cut Crystal

