

## 90SMX(N) CRYSTALS 8.7mm x 3.8mm

### DESCRIPTION

90SMX (N) crystals are miniature surface-mount crystals specifically designed to provide a low cost crystal for mass-market applications. The crystals have a low-profile and are manufactured in epoxy resin.

### FEATURES

- Frequency 32.7680kHz
- Industry-standard package
- Compact and low-profile: 8.7mm x 3.8mm x 2.5 mm
- Supplied in standard EIA 16mm tape and reel

### GENERAL SPECIFICATION

Nominal Frequency:	32.7680kHz
Calibration Tolerance at 25°C*:	±20ppm
Load Capacitance (CL):	12.5pF*
Equivalent Series Resistance:	50kW
Drive Level:	1.0mW maximum
Quality Factor (Q):	50,000 minimum
Turnover Temperature:	+25°C (X-Cut)
Temperature Coefficient:	-0.035ppm/°C <sup>2</sup> ±10%
Shunt Capacitance (C0):	1.35pF typical
Capacitance Ratio:	450 typical
Ageing at 25°C:	±3ppm maximum, first year
Insulation Resistance:	500MW minimum @ 100VDC
Crystal Cut:	X-Cut
Operating Temperature Range:	-40° to 85°C
Storage Temperature Range:	-55° to +125°C
Shock:	±5ppm
Vibration:	±5ppm
Reflow Soldering:	10s maximum @ +235°C±5°C
Packaging:	Supplied on standard EIA 16mm tape, 3000 pieces per reel.

#### Notes:

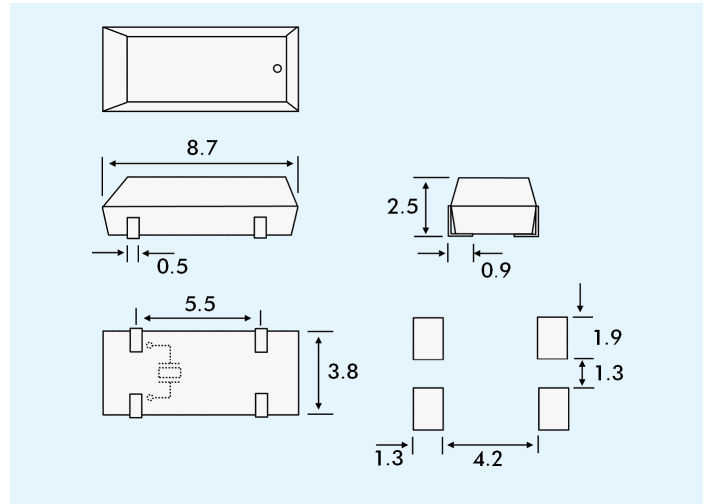
\* Other CL (i.e. CL = 6pF) is available, check with Euroquartz sales.

### PART NUMBER

For a standard 90SMX(N) crystal at 32.7680kHz there is a standard stock part available:

Euroquartz Stock Number: PH32768X

### OUTLINES AND DIMENSIONS



### STABILITY/TEMPERATURE PERFORMANCE

