

90SMX(SH) CRYSTALS 9mm x 3.8mm x 2.5mm

DESCRIPTION

90SMX(SH) crystals utilize the standard 90SMX package but with AT-Cut crystal blanks, providing a compact crystal with the frequency range of 12MHz to 40MHz. The crystals have a low-profile and are manufactured in epoxy resin.

FEATURES

- Frequency 12MHz to 40MHz
- · Industry-standard package
- · Compact and low-profile: 9.0mm x 3.8mm x 2.5 mm
- · Supplied in standard EIA 16mm tape and reel

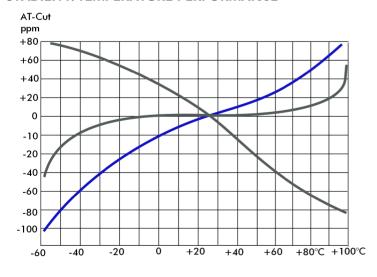
GENERAL SPECIFICATION

Frequency Range: 12.0MHz to 40.0MHz Calibration Tolerance at 25°C*: ± 50 ppm Mode: Fundamental **Temperature Stability:** ± 50 ppm over -20° to +70°C Shunt Capacitance: 5pF maximum 12.5pF to 35pF Load Capacitance: (Customer specified.) 100mW maximum **Drive Level:** Ageing: ±3ppm in first year at 25°C Crystal Cut: AT-Cut **Reflow Soldering:** 10s max. at +235°C ±5°C Packaging: Tape and Reel (EIA 16mm tape)

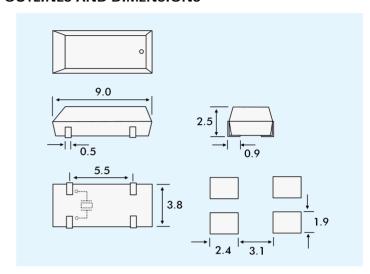
OSCILLATION MODE & ESR

Frequency (MHz)	Crystal Cut Oscillation Mode	ESR (max) (Ohms)
12.0 ~ 16.667	AT Fund.	80
16.668 ~ 23.999	AT Fund.	60
24.0 ~ 40.0	AT Fund.	50

STABILITY/TEMPERATURE PERFORMANCE



OUTLINES AND DIMENSIONS



PART NUMBER GENERATION

90SMX(SH) crystal part numbers are derived as follows:

