

90SMX(N) CRYSTALS

8.7 x 3.8 x 2.5mm SMD

32.768kHz

- Frequency 32.768kHz
- Industry-standard package
- Compact and low-profile
- Supplied on EIA tape and reel





OUTLINE & DIMENSIONS

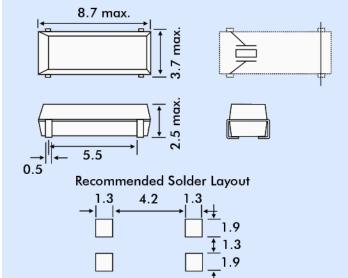


DESCRIPTION

90SMX(N) crystals are miniature surface-mount crystals specifically designed to provide a low-cost and reliable source of real time clock 32.768kHz frequency fro mass-marlet applications. The crystals are low-profile and encapsulated in epoxy resin.

SPECIFICATION

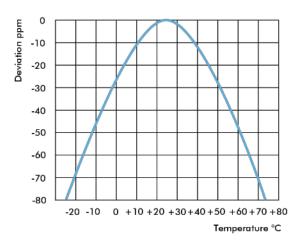
Nominal Frequency:	32.7680kHz
Calibration Tolerance at 25°C:	±20ppm
Load Capacitance (CL):	12.5pF*
Equivalent Series Resistance (ESR):	50k Ohms
Drive level:	$1.0 \mu\text{W}$ max.
Q:	50,000 minimum
Temperature Coefficient:	-0.035±0.008ppm/°C2 (Parabolic)
Turnover Temperature:	+25°±5°C
Shunt Capacitance:	1.0pF typical
Ageing:	±5ppm max. in first year at 25°C
Insulation Resistance:	500M Ohm minimum @100VDC
Crystal Cut:	X-Cut
Operating Temperature Range:	-40° to +85°C
Storage Temperature Range:	-55° to +125°C
Reflow Soldering:	10s maximum at 260°C twice
	or 180s at 230°C, once.
Shock:	±5ppm max, free drops x3 from
	75cm height onto hard wood
	surface.
Packaging:	EIA tape and reel, 3k pieces/reel
RoHS Status:	Compliant



PART NUMBER AND SPECIFICATION

Order stock number: PH32768X for 32.768kHz ±20ppm, 12.5pF

STABILITY OVER TEMPERATURE X-Cut Crystal



Issue 2

^{*} Other CL (I.e CL = 6pF) is available, check with Euroquartz.