

X42 CRYSTALS

4mm x 2.5mm x 0.6mm SMD

12.0MHz to 50MHz

DESCRIPTION

X42 crystals are micro-miniature surface-mount mount crystals. The crystals have a gold plated ceramic base and a seam welded metal lid providing a stable crystal with very low ageing. The rugged construction ensures that this crystal has high shock and vibration resistance. The crystal has been specifically designed for use in small hand-held communication equipment such as PDAs, GPS and Bluetooth.

SPECIFICATION

Frequency Range	
AT-Cut Fundamental:	12.0MHz to 50.0MHz
Calibration Tolerance at 25°C*:	from ± 5 ppm (± 10 , ± 20 or ± 30 ppm standard)
Frequency stability*	
-10° to +60°C	from ± 5 ppm
-20° to +70°C	from ± 10 ppm
-30° to +85°C	from ± 10 ppm
Storage Temperature:	-40°~+85°C
Equivalent Series Resistance:	See table
Shunt Capacitance (C0):	2pF to 4pF typical, 5pF maximum
Load Capacitance (CL):	Series or from 10pF to 32pF (Customer specified CL)
Ageing:	< ± 3 ppm per year at +25°C
Drive level:	100 microW maximum
Reflow Soldering:	10s maximum at 260°C twice or 180s at 230°C, once.
Packaging:	16mm EIA tape and reel

*Note: Tighter stability, tolerance and lower ESR values are available.

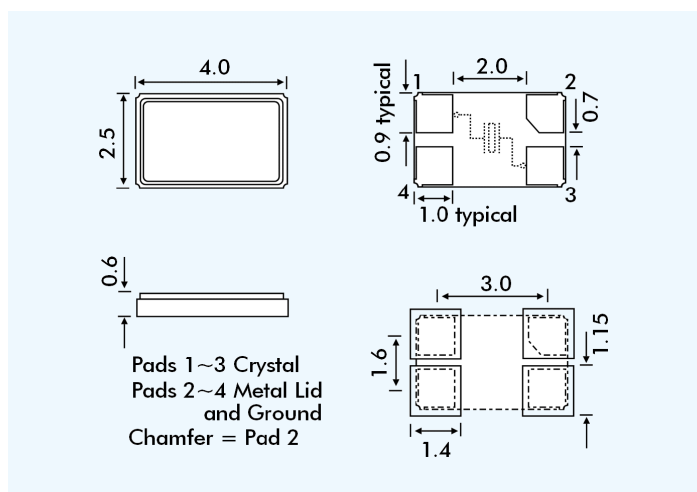
EQUIVALENT SERIES RESISTANCE

Frequency Range MHz	Crystal Cut/ Mode	ESR Ohms Max.
12.0 ~ 20.0	AT Fund.	80
20.1 ~ 50.0	AT Fund.	60

FEATURES

- Miniature size: 4.0mm x 2.5mm x 0.6mm height
- Gold-plated ceramic base with metal seam-welded package
- Very low ageing
- Designed for hand-held equipment, PDAs, Blue Tooth, GPS
- High shock and vibration resistance

OUTLINE & DIMENSIONS



PART NUMBER GENERATION

Part numbers for X42 crystals are generated as follows:

Example: 12.000MHz X42/20/30/-10+60/12pF/60R

