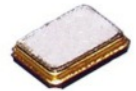


- Miniature size: 5.0mm x 3.2mm x 1.0mm height
- Gold-plated ceramic base with metal seam-welded lid
- To minimize EMI the whole crystal may be grounded
- High shock and vibration resistance
- Ideal for PDAs, GPS, PCMCIA, Wireless LAN etc.



## 5 x 3.2 x 1.0mm SMD



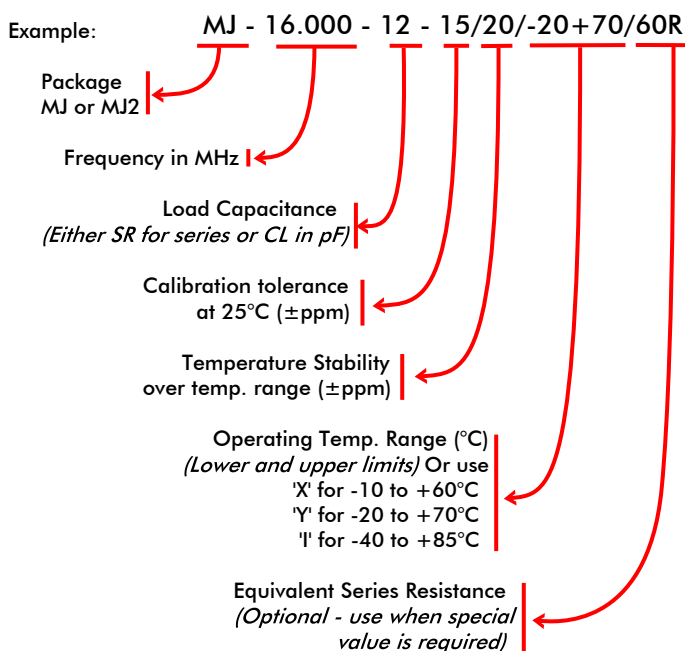
### DESCRIPTION

MJ crystals are miniature surface-mount crystals produced with a ceramic substrate and seam-welded metal lid. Their compact size and low mass make MJ crystals ideal for high-density applications. The standard crystal is four pad. There is also a 2 pad version.

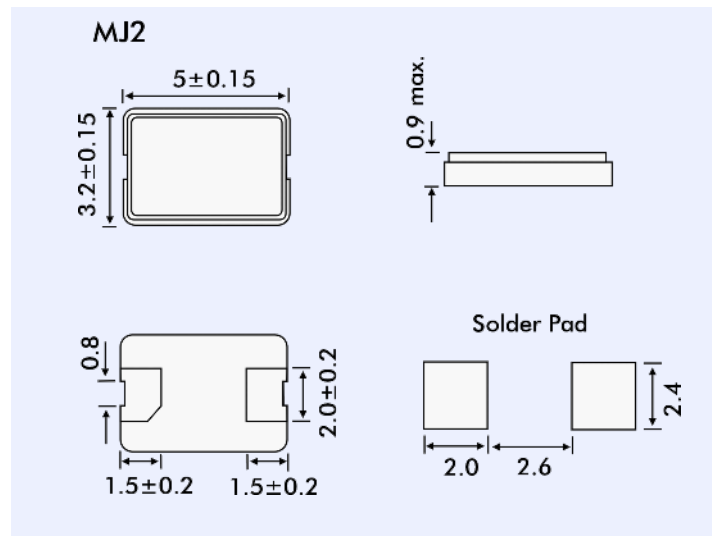
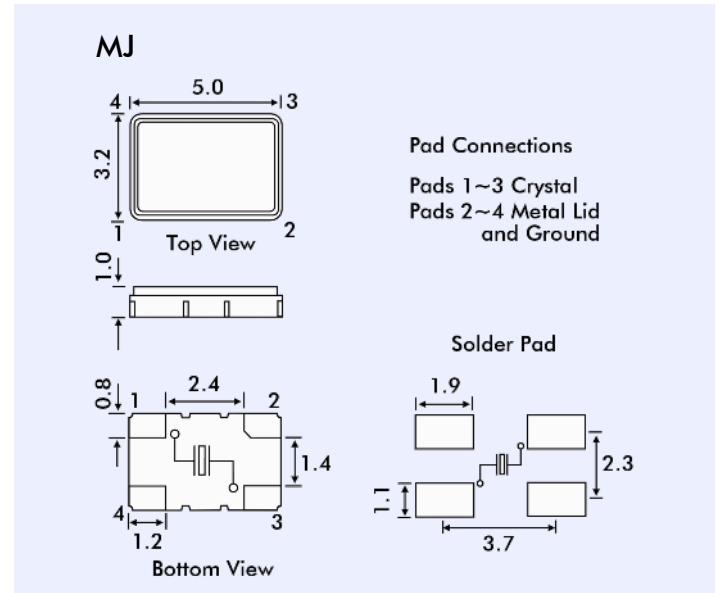
### SPECIFICATION

Frequency Range:	
AT-Cut Fundamental:	8.0MHz to 50.0MHz
AT-Cut 3rd overtone:	40.0MHz to 125.0MHz
Calibration Tolerance at 25°C:	from $\pm 5$ , $\pm 10$ , $\pm 20$ ppm ( $\pm 30$ ppm standard)
Frequency stability	
-10° to +60°C	from $\pm 5$ ppm
-20° to +70°C	from $\pm 10$ ppm
-40° to +85°C	from $\pm 15$ ppm
Storage Temperature:	-50°~+105°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:	< $\pm 3$ ppm per year at +25°C
Drive level:	100 $\mu$ W maximum, 10 $\mu$ W typical
Reflow Soldering:	10s maximum at 260°C twice or 180s at 230°C, once.
Package:	Ceramic base, metal (Kovar) lid, Hermetic seal
Packaging:	EIA tape and reel 1000 pieces per reel
RoHS Status:	RoHS Compliant and pB free

### PART NUMBER FORMAT



### OUTLINE & DIMENSIONS



### EQUIVALENT SERIES RESISTANCE

Frequency Range MHz	Mode	ESR $\Omega$ max.
8.0 ~ 10.0	AT-Cut Fundamental	80
10.1 ~ 50.0	AT-Cut Fundamental	50
40.0 ~ 125.0	AT-Cut 3rd overtone	80