

- Low frequencies from 3.2MHz to 70.0MHz
- Fully RoHS compliant
- Two height profiles available, 4.8 or 3.8mm
- Standard EIA tape and reel supply

12 x 4.5mm SMD



DESCRIPTION

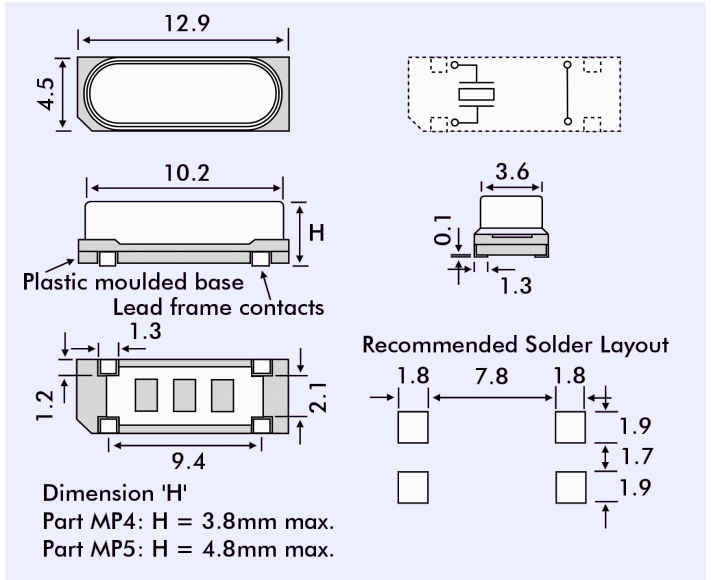
MP4 and MP5 crystals provide cost-effective low frequency clock signals (from 3.2MHz) in a low-profile SMD package. The part is electrically and mechanically compatible with traditional industry SMD packages and may be used as a 'drop-in' replacement.

Note: MP4 and MP5 crystals are designed for top board assembly and one solder reflow process. Do not mount this part with the can mounted downwards.

SPECIFICATION

Package Designation	MP4: Dimensions 12.9 x 4.5 x 3.8mm MP5: Dimensions 12.9 x 4.5 x 4.8mm
Frequency Range	AT-Cut Fundamental: 3.20MHz to 48.0MHz AT-Cut 3rd Overtone: 27.0MHz to 70.0MHz BT-Cut Fundamental: 24.0MHz to 48.0MHz
Calibration Tolerance at 25°C*:	from ±5ppm at 25°C (±30ppm standard)
Frequency stability;	
Storage Temperature:	-40°~+85°C
Equivalent Series Resistance:	See table
Shunt Capacitance (C0):	7pF maximum
Load Capacitance (CL):	Series or from 8pF to 32pF (Customer specified CL)
Ageing:	< ±5ppm per year at +25°C
Drive level:	0.5mW maximum
Reflow Soldering:	10s maximum at 260°C twice or 180s at 230°C, once.
Packaging:	24mm EIA tape and reel, 1k per.

OUTLINE & DIMENSIONS



EQUIVALENT SERIES RESISTANCE

AT-Cut Fundamental		AT-Cut 3rd Overtone	
Frequency Range MHz	ESR Ohms Max.	Frequency Range MHz	ESR Ohms Max.
3.2~3.4	300	27.0~30.0	150
3.5~6.0	120	30.1~50.0	100
6.1~10.0	60	50.1~70.0	80
10.1~48.0	40		

AT-Cut 3rd Overtone	
Frequency Range MHz	ESR Ohms Max.
24.0~48.0	40

PART NUMBER FORMAT

