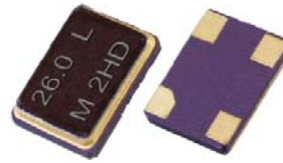


SMD type
3.2 x 2.5 x 0.7 mm



Applications

- The entire package can be grounded via the top metal lid and the two bottom pads .
- Small footprint. Ideal for space constrained applications
- Exhibits extremely low aging with a high shock & vibration resistance.

General Specifications

Parameters	Electrical Spec.
Item / Type	MJ series (5.0 * 3.2 * 0.8 mm)
Frequency Range & Crystal Cut	10.000 ~ 50.000 MHz , AT-cut , Fundamental Mode (see Table 1) 40.000 ~ 125.000 MHz , AT-cut , 3rd overtone (see Table 1)
	NOTE : Frequencies between 40 and 50 MHz can be either AT fundamental or AT 3rd overtone. Please add " AF " after the frequency on the part number for an AT-cut fundamental mode crystal and " A3 " for an AT-Cut 3rd overtone crystal. For example: MJ-40.000AF-20P.
Load Capacitance	Series or Parallel (8 to 32 pF) resonance
Drive Level	10μ W typical (100μ W max.)
Frequency Tolerance	± 5 ppm , ± 10 ppm , ± 20 ppm or ± 30 ppm at 25°C
Frequency Stability	See Table 2
Aging	ΔF / F : ±3 ppm / year (max.)
Storage Temperature Range	- 50°C to 105°C

Table 1

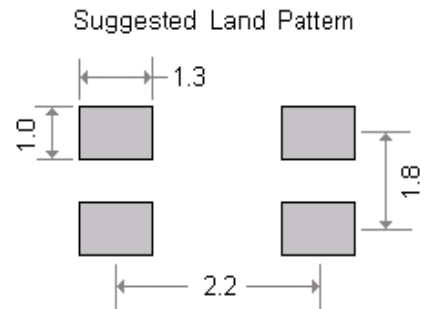
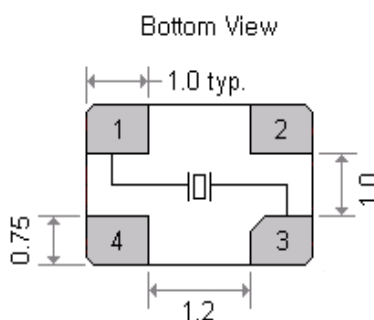
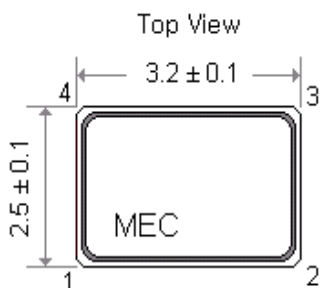
ESR (Equivalent Series Resistance)		
Frequency Range	Oscillator Mode	E. S. R.
10.000 ~ 20.000 MHz	AT-Cut , Fund. Mode	120 Ω max
20.100 ~ 50.000 MHz	AT-Cut , Fund. Mode	60 Ω max
40.000 ~ 125.000 MHz	AT-Cut , 3rd Overtone	80 Ω max

Table 2

Frequency stability vs Operating temperature range							
Stability code	Temp. (°C) \ ppm	± 5	± 10	± 15	± 20	± 25	± 30
X	-10 to 60°C	○	○	○	○	○	○
Y	-20 to 70°C	▲	○	○	○	○	○
I	-40 to 85°C				○	○	○

○ : available ; ▲ : contact Mercury

Outline Dimensions (Unit : mm)



Pad connections :
 Pad 1 and 3 : Crystal
 Pad 2 and 4 : Connected through the metal lid for grounding
 Chamfered pad is pad No.3