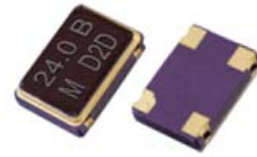


SMD type
2.0 x 1.6 x 0.6 mm



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	X21 series (2.0 * 1.6 * 0.6 mm)
Frequency Range	20.000 ~ 54.000 MHz
Crystal Cut	Fundamental Mode , AT-Cut
Load Capacitance	Series or Parallel (8 to 32 pF) resonance
Drive Level	10μ W typical (100μ W max.)
Frequency Tolerance	± 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

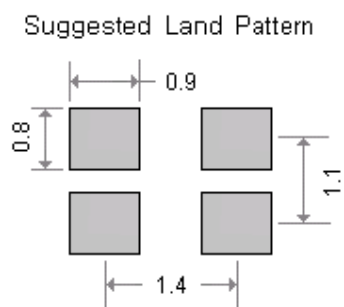
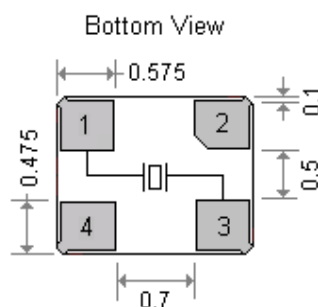
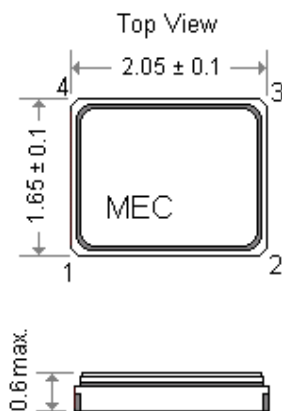
ESR (Equivalent Series Resistance)	
Frequency Range	E. S. R.
20.000 ~ 30.000 MHz	120 Ω max.
30.100 ~ 54.000 MHz	80 Ω max

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 (in / out)
 Pad 2 and 4 : Connected through the metal lid for grounding
 Chamfered pad is pad No.2