

**Table 1. Electrical Performance**

Parameter	Symbol	Min.	Typ	Max	Units
Nominal Frequency	$F_{NOM}$	14.000		60.000	MHz
Mode		Fundamental, AT - Cut			
Operating Temperature Range	$T_{OP}$	0/70, -10/70, -20/70, -40/85			°C
Stability Over $T_{OP}$ <sup>1</sup>	$F_{STAB}$	±10		±100	ppm
Frequency Tolerance <sup>2</sup>	$F_{TOL}$		±10		ppm
Load Capacitance	$C_L$	6		32	pF
Shunt Capacitance	$C_o$			5	pF
Drive Level			10	100	uW
Aging / 1st year (at 25 °C)	$F_{AGE}$			±5	ppm
Insulation Resistance		500			MOhm
Storage Temperature	$T_{STO}$	-40		90	°C
<b>Equivalent Series Resistance</b>					
Crystal Frequency	ESR				Ohm
14.000MHz-20.000MHz				80	
20.001MHz-30.000MHz				60	
30.001MHz-35.000MHz				50	
35.001MHz-60.000MHz				40	

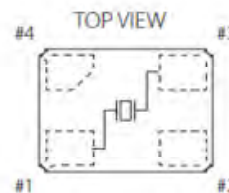
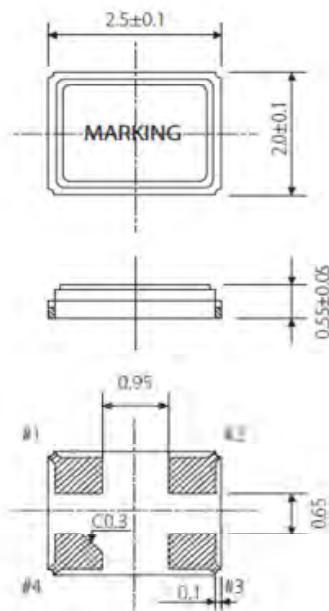
1. Referenced to the Frequency at 25 °C.

2. Frequency measured at 25 °C ± 3 °C.

Product is compliant to RoHS directive and fully compatible with lead free assembly.



## Package Drawing



• #1, #3 : Crystal terminal / #2, #4 : Connected to cover  
(Please connect it with GND.)

All Dimensions in mm

### RECOMMENDED LAND PATTERN

