

Helping Customers Innovate, Improve & Grow

Table 1. Electrical Performance

Parameter	Symbol	Min.	Typ	Max	Units
Nominal Frequency	F_{NOM}	12.000		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} ¹	F_{STAB}	±10		±100	ppm
Frequency Tolerance ²	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
Equivalent Series Resistance					
Crystal Frequency	ESR				Ohm
12.000MHz-14.000MHz				100	
14.001MHz-19.000MHz				80	
19.001MHz-30.000MHz				60	
30.001MHz-60.000MHz				40	

1. Referenced to the Frequency at 25 °C.

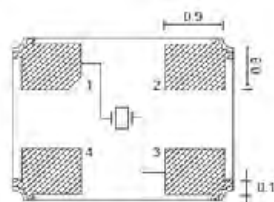
2. Frequency measured at 25 °C ± 3 °C.

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

Package Drawing



BOTTOM VIEW



All Dimensions in mm

RECOMMENDED PAD LAYOUT

