JIANGSU HD-CRYSTAL TECHNOLOGY CO., LTD

SMD3225-4 Crystal Resonator

HIGH DIODE

7B048000R01

1. Scope:

1.1 This specification applies to the RoHS compliance quartz crystal unit with a frequency of 48.000MHz which will be used in crystal oscillator applications.
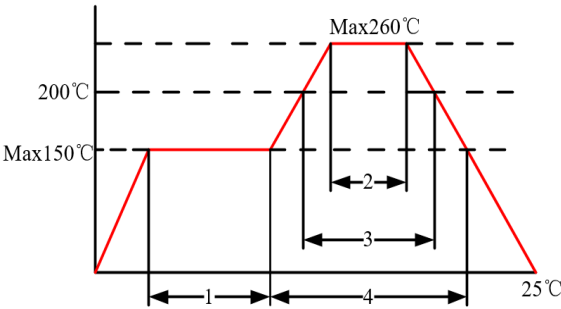
2. Construction:

2.1 Type of Quartz Resonator: SMD3225-4pads

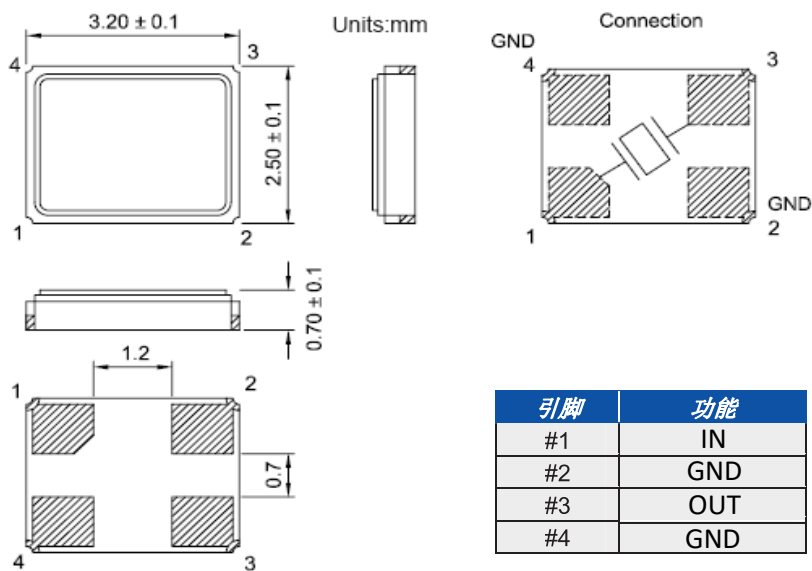### 3. Electrical Characteristics

3.1	Nominal Frequency(f):	48.000MHz
3.2	Load Capacitance(C_L):	20pF
3.3	Frequency Tolerance($\triangle$f/f):	±10ppm
3.4	Frequency Temperature Stability:	±20ppm
3.5	Resonance Resistance(ohm):	25 ohms Max
3.6	Osc mode:	Fundamental mode
3.7	Shunt Capacitance(C_0):	2pF Max
3.8	Drive Level(D_L):	100µW Max
3.9	Operating Temperature Range(T_{OPR}):	-20 to + 70°C
3.10	Storage Temperature Range(T_{STG}):	-55 to + 125°C
3.11	Insulation Resistance(IR):	＞500M ohms
3.12	Aging($\triangle f_A$):	±3ppm/Year Max

Reliability Specification

	Item	Condition	Standard
1.	Drop characteristics	Free drop from 75cm height on a hard wooden board for 3 times. (Board is thickness more than 30 mm.)	Frequency change:≤±5ppm Rr as specification
2	Mechanical shock	Device are shocked to half sine wave (1000g) three mutually perpendicular axes each 3 times	Frequency change:≤±5ppm Rr as specification
3.	Shake characteristics	Shake frequency 10~55Hz, cyc1~2 minutes, swing 1.5mm, direction x/y/z, all 30 minutes, test after 1 hours.	Frequency change:≤±5ppm Rr as specification
4.	Humidity characteristics	+40±2℃ & 90%~95% R.H. 250 hours	Frequency change:≤±5ppm Rr as specification
5.	Low temperature characteristics	-40±2℃, 250 hours, put in room temperature, test after 1 hours.	Frequency change:≤±5ppm Rr as specification
6.	High temperature characteristics	+85±2℃, 250 hours, put in room temperature, test after 1 hours.	Frequency change:≤±5ppm Rr as specification
7.	Temperature cycling	-30±3℃/30±3 min~+85±2℃/30±3min, 5 cycles	Frequency change:≤±5ppm Rr as specification
8.	Refluence examination	 Max260℃ 200℃ Max150℃ 2 3 25℃ 1 4 1.Max 180sec 2. Max 10 sec 3.Max 80 sec 4.Max 90 sec	Frequency change:≤±5ppm Rr as specification

Package Outline Dimensions

引脚	功能
#1	IN
#2	GND
#3	OUT
#4	GND

Suggested Pad Layout

Packing Specificatio

Qty:3000Pcs

inner packing carton

deliver packing carton