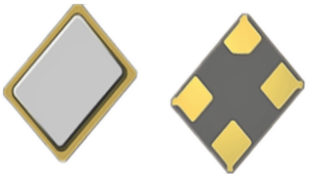
HD FREQUENCY

JIANGSU HD-CRYSTAL TECHNOLOGY CO., LTD

SMD2016-4 Crystal Resonator

7D030000A01



1. Scope:

1.1 This specification applies to the RoHS compliance quartz crystal unit with a frequency of 30.000MHz which will be used in crystal oscillator applications.

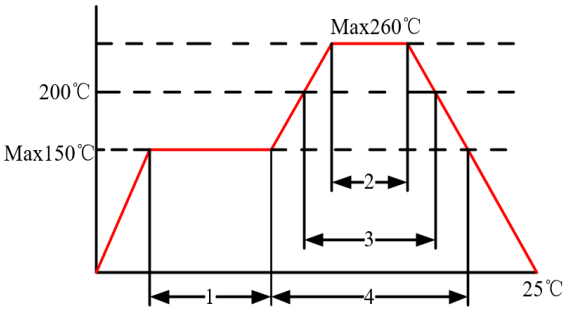
2. Construction:

2.1 Type of Quartz Resonator: SMD2016-4pads

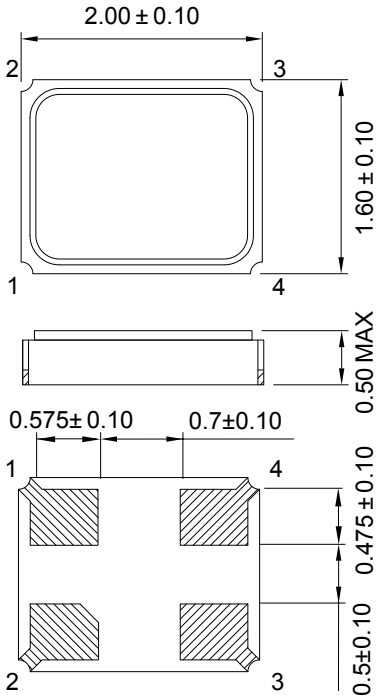
3. Electrical Characteristics

3.1	Nominal Frequency(f):	30.000MHz
3.2	Load Capacitance(C_L):	6pF
3.3	Frequency Tolerance(△f/f):	±10ppm
3.4	Frequency Temperature Stability:	±20ppm
3.5	Resonance Resistance(ohm):	50 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(△f_A):	±3ppm/Year Max

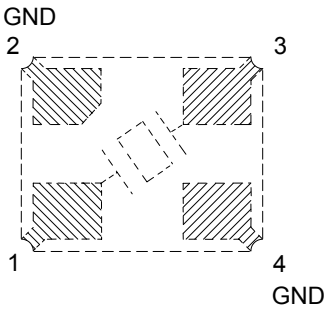
Reliability Specification

	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	 1.Max 180sec 2. Max 10 sec 3.Max 80 sec 4.Max 90 sec	Frequency change:≤±5ppm Rr as specification

Package Outline Dimensions



Bottom View

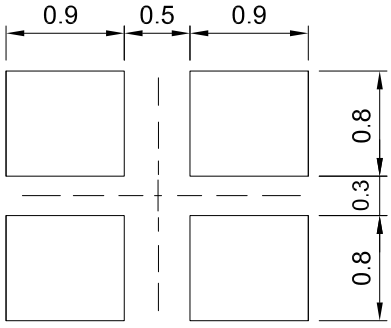


Internal View Connection

引脚	功能
#1	CRYSTAL
#2	GND
#3	CRYSTAL
#4	GND

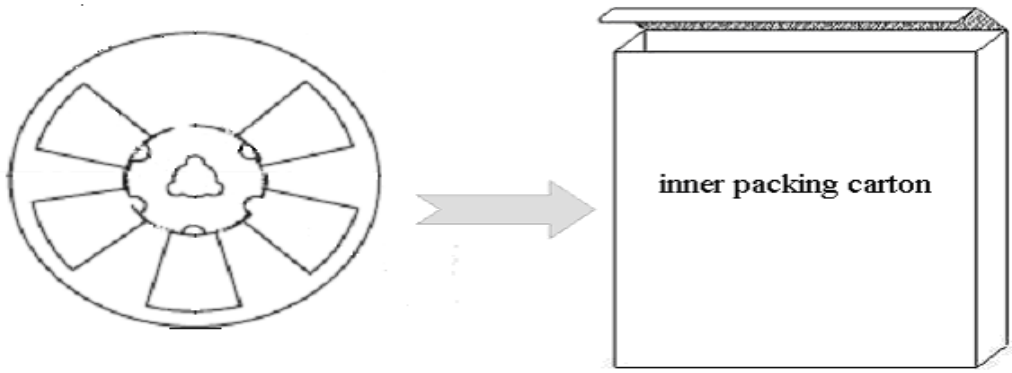
Units:mm

Suggested Pad Layout



Units:mm

Packing Specification



Qty:3000Pcs