

TIMBG2008-10-02

SPECIFICATION

OF PRODUCTS

CUSTOMER : _____

PRODUCT NAME: SMD QUARTZ CRYSTAL UNIT

PART NUMBER : Φ2×6 32.768KHz

Approved by	Checked by	Drawn by
Qinzhang	Weihong	



SHENZHEN RONGTAI ELECTRONICS CO., LTD.

Add : 810 Huashenghui Building, Jinhai Road,

Baoan District, Shenzhen

Tel : +86-755-29419005 29419720 Fax : +86-755-29443110

E-mail : simingtim@tim-crystal.com

Approval Sheet	
Customer	
Supplier P/N	Φ2×6 32.768kHz
Customer P/N	

Customer's Approval Certificate	
Checked & Approval by	
Date	

Please return this copy as a certification of your approval.

1. SCOPE

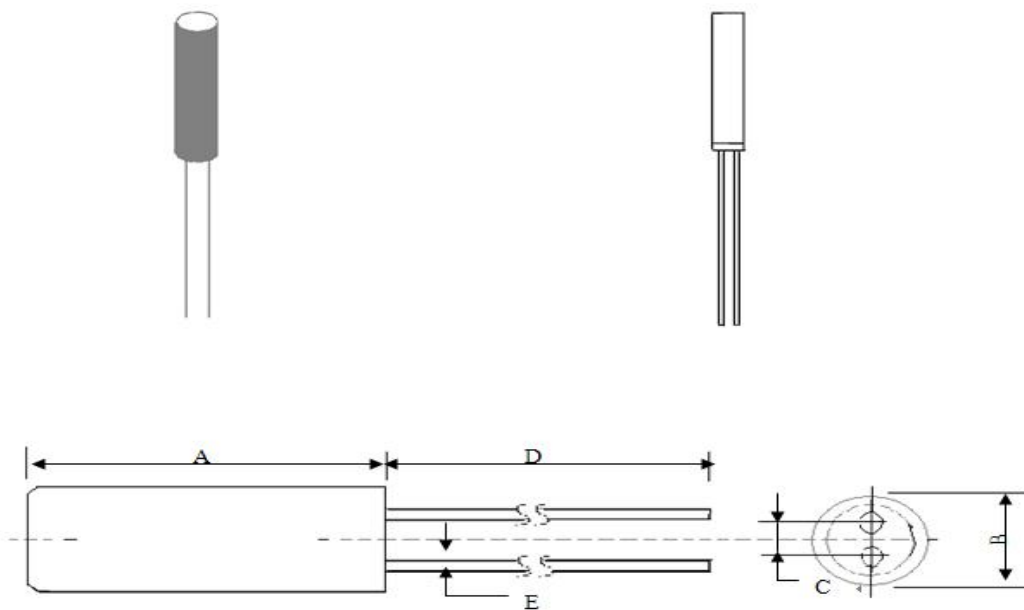
This specification shall cover the characteristics of the quartz crystal unit with the type $\Phi 2*6\text{mm}$ 32.768KHz.

2. OUTLINE DRAWING AND DIMENSIONS

2.1 Appearance: No visible damage and dirt.

2.2 The materials don't contain lead.

2.3 Dimensions and marking



MODEL	A	*B	C	D	E
F 2×6mm	6.0±0.3	2.0±0.1	0.7	6.0	0.2
3×8mm	8.0±0.3	3.0±0.1	1.1	10.0	0.3
3×9mm	9.0±0.3	3.0±0.1	1.1	10.0	0.3
3×10mm	10.0±0.1	3.0±0.1	1.1	10.0	0.3

*the dimension is the diameter of the crystal without the Heat Shrink Tubing ,the thickness of the tubing is about 0.1mm,and the diameter of crystal with the tubing is $B+0.2+/-0.05\text{mm}$.

3. ELECTRICAL SPECIFICATIONS

Items	Content
Nominal frequency	32.768KHz
Oscillation mode	Fundamental
Frequency tolerance	±20PPM 25±5°C
Turnover temperature (Ti)	25±5°C
Parabolic coefficient (B)	$(-3.5±1.0) \times 10^{-8}/^{\circ}\text{C}^2$
Load capacitance	12.5PF
Drive level	1μW Max
Equivalent series resistance	60KΩMax
Operation temperature	-40°C ~ 85°C
Store temperature	-40°C ~ 85°C
Parallel capacitance (C ₀)	2PF Max
Insulation resistance	More than 500MΩ AT DC100V
Aging rate per year	±3PPM
Remark	

4 TEST SET: KH1240

5 MECHANICAL CHARACTERISTICS

5-1 DROP TEST :

Electrical characteristics shall be satisfied after dropping from 50cm height 3 times on 30mm thick firm wood .

5-2 SEALING TEST:

Put the specimens C₂H₅OH ,raise pressure it with 0.4Mpa for 10minutes,Test the insulation resistance at DC.100V result shall be over 500MΩ. Electrical characteristics shall be satisfied and no sealing damage.

5-3 SOLDERING TEST:

a. SOLDERING DIP

Leads of specimen shall be dipped into solder melt tank at 230°C±5°C for 3sec.

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Dipping depth shall be 2mm from the bottom of specimen body. After applying ROSIN FLUX soldering portion shall be covered in over 95% of leads dipped.

b. **SOLDER HEATING**

Leads of specimen shall be dipped into solder melt tank at $250^{\circ}\text{C}\pm 5^{\circ}\text{C}$ for 3sec.

Dipping depth shall be 2mm from the bottom of specimens body. Electrical characteristics shall be satisfied

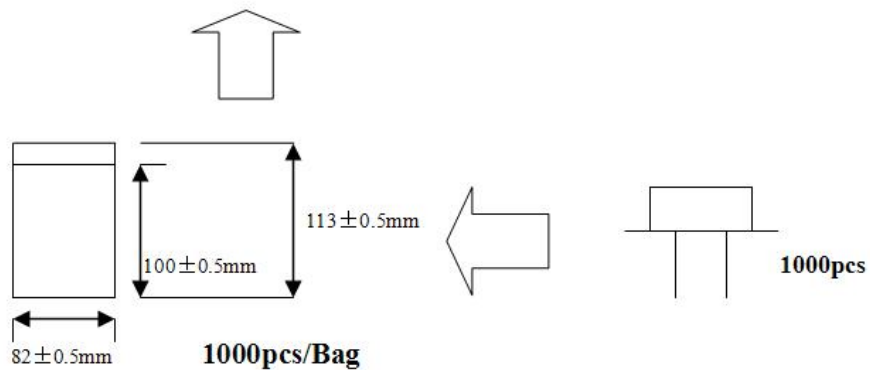
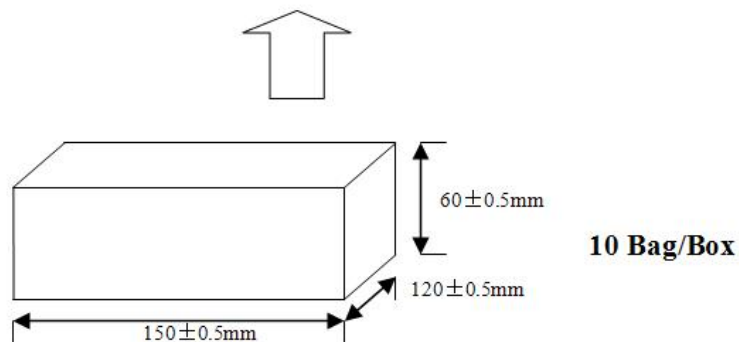
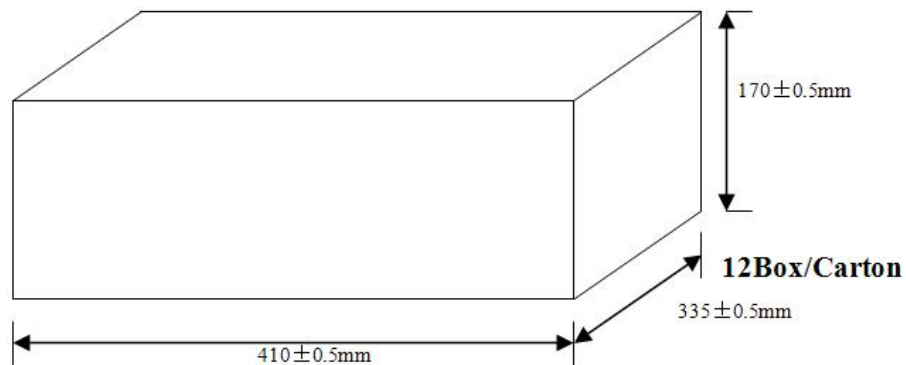
6 PACKING METHOD

To protect the products in storage and transportation, it is necessary to pack them (outer and inner package). On paper pack, the following requirements are requested.

6.1 Dimensions and Mark

At the end of package, the warning (moisture proof, upward put) should be stick to it.

Dimensions (see below)



6.2 Quantity of package

1000pcs crystal units in 1 small packet, 10 small packets in 1 box, 12 boxes in 1 big box.

120000pcs crystal units in 1 big box.

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7 OTHER

7.1 Caution of use

7.1.1 Do not use this product with bend. Please don't apply excess mechanical stress to the component and terminals at soldering.

7.1.2 The component may be damaged when an excess stress will be applied.

7.1.3 This specification mentions the quality of the component as a single unit. Please insure the component is thoroughly evaluated in your application circuit.

7.2 Notice

7.2.1 Please return one of this specification after your signature of acceptance.

7.2.2 When something gets doubtful with this specifications, we shall jointly work to get an agreement.