

# SPECIFICATION FOR APPROVAL

CUSTOMER : \_\_\_\_\_

PRODUCT TYPE : SMD GLASS SEALING XTAL 5.0\*3.2

NOMINAL FREQ. : 8.000000MHz

TXC P/N : AA08000002

REVISION : S1

CUSTOMER P/N : \_\_\_\_\_

PM / SALES : \_\_\_\_\_

DATE : \_\_\_\_\_

CUSTOMER SIGNATURE & Date \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- (1) TXC requires one copy returned with signature and title of authorized individual that signifies acceptance of the attached specifications.
- (2) Orders received and accepted by TXC after return of signed copy of specification will be produced per these specifications.
- (3) Any changes to these specifications must be agreed upon by both parties and new revision of the Product Specification Sheet will be issued.
- (4) Any issuance of purchase order prior to consigning back the Approval page of "Specification Sheets" from customers will be regarded as the agreement on the contents of these specifications.

Attachment: Product Specification Sheet

- 1
- 2
- 3
- 4
- 5

**RoHS Compliant**

Pb used in sealing glass material is exempt from EU directive



# PRODUCT SPECIFICATION SHEET

PRODUCT TYPE : SMD GLASS SEALING XTAL 5.0\*3.2

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NOMINAL FREQ. : 8.000000MHz

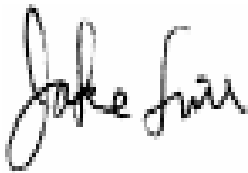
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TXC P/N : AA08000002

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REVISION : S1

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PE/RD	QA	MFG
		
14-Aug-08		

**NOTE:**

- (1)Lead Free Products are "Directive 2002/95/EC of The European Parliament of 27 January 2003 on the restriction of the use of certain hazardous substances (RoHS) in electrical and electronic equipment" Compliant (Attachment: SGS Test Report).
- (2)Revision "Sx" is for engineering samples only. PE/RD's approval required.
- (3)Revision "Ax" is production ready. PE, QA and MFG's approval required.

## RoHS Compliant

Pb used in sealing glass material is exempt from EU directive



<u>Rev</u>	<u>Revise page</u>	<u>Revise contents</u>	<u>Date</u>	<u>Ref.No.</u>	<u>Reviser</u>
S1	N/A	Initial released	14-Aug-08	N/A	Chao Kang

## ELECTRICAL SPECIFICATIONS

### Standard atmospheric conditions

Unless otherwise specified, the standard range of atmospheric conditions for making measurement and tests are as follow:

Ambient temperature : 25±5  
 Relative humidity : 40%~70%

If there is any doubt about the results, measurement shall be made within the following limits:

Ambient temperature : 25±3  
 Relative humidity : 40%~70%

### Measure equipment

Electrical characteristics measured by HP E5100A or equivalent.

### Crystal cutting type

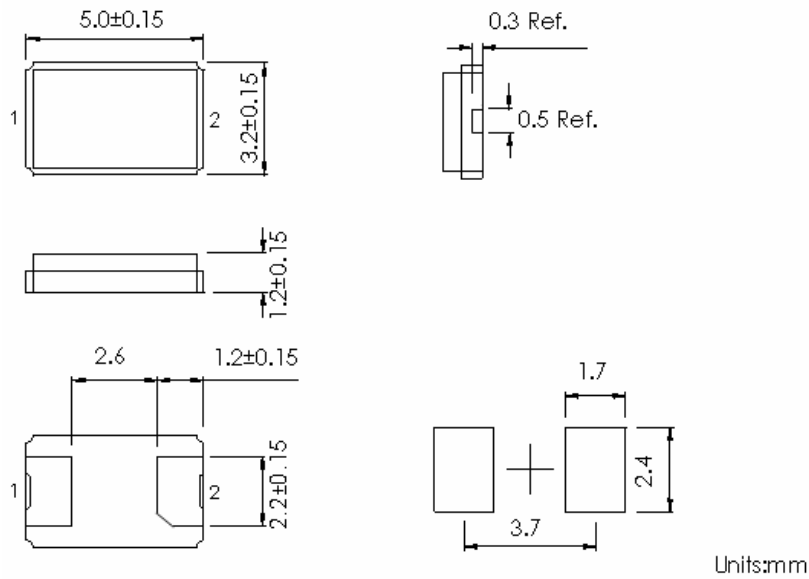
The crystal is using AT CUT (thickness shear mode).

### Unit Weight:

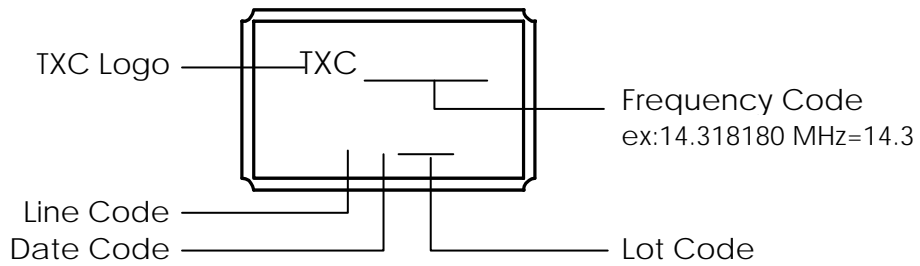
0.062±0.001 g/pcs

	Parameters	SYM.	Electrical Spec.				Notes
			MIN	TYPE	MAX	UNITS	
1	Nominal Frequency	FL	8.000000			MHz	-
2	Oscillation Mode	-	Fundamental			-	-
3	Load Capacitance	CL	8			pF	-
4	Frequency Tolerance	-	±30			ppm	at 25 ± 3
5	Frequency Tolerance	-	±100			ppm	Over Operating Temp. Range (Reference 25 )
6	Operating Temperature	-	-40	~	125		-
7	Aging	-	3			ppm	1st Year
8	Drive Level	DL	-	100	300	uW	-
9	Effective Resistance Rr	Rr	-	-	150	Ω	-
10	Shunt Capacitance C0	C0	-	-	5	pF	-
11	Insulation Resistance	-	500	-	-	MΩ	at DC 100V
12	Storage Temperature Range	-	-40	~	150		-

**DIMENSIONS**



**MARKING**



Date Code:

YEAR				MONTH											
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2005	2009	2013	2017	A	B	C	D	E	F	G	H	J	K	L	M
2006	2010	2014	2018	N	P	Q	R	S	T	U	V	W	X	Y	Z
2007	2011	2015	2019	a	b	c	d	e	f	g	h	j	k	l	m
2008	2012	2016	2020	n	p	q	r	s	t	u	v	w	x	y	z

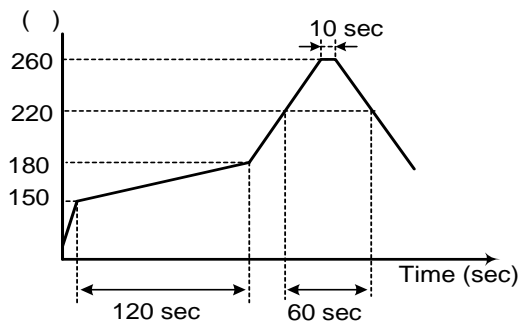
\*This date code will be cycled every four years

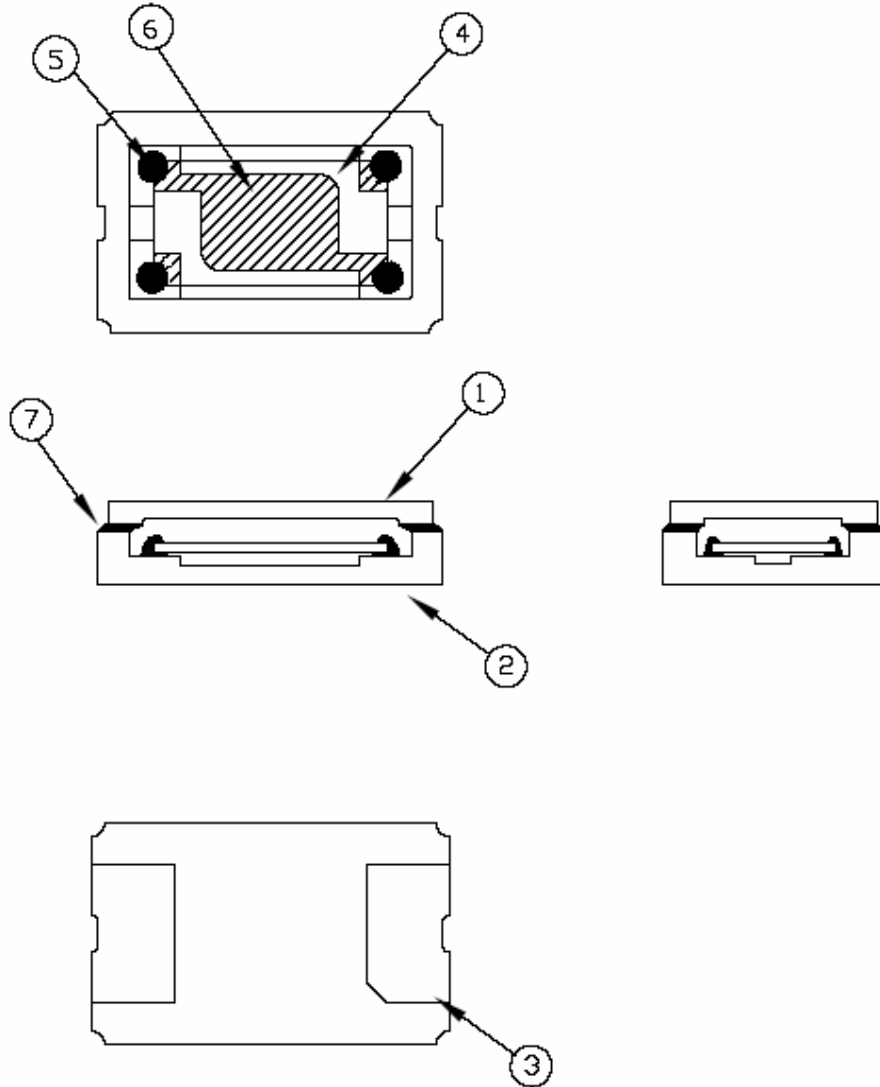
**Production location: China**

**SUGGESTED REFLOW PROFILE**

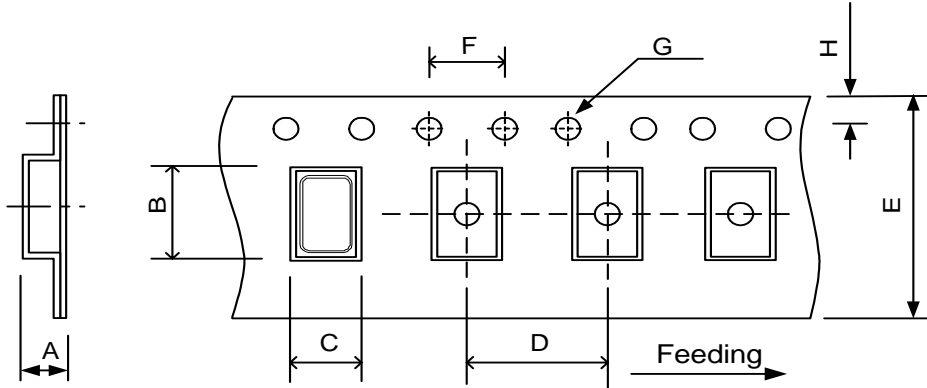
Total time : 200 sec. Max.

Solder melting point :220

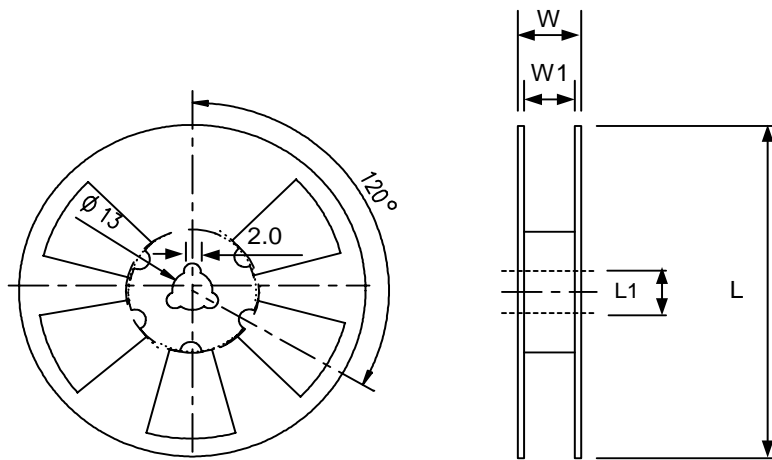
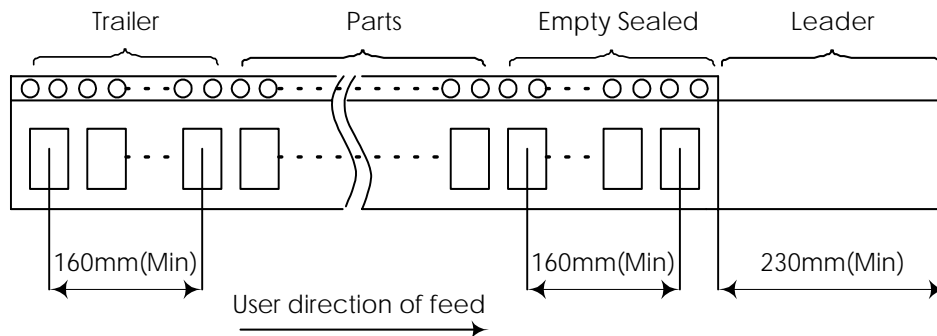


**STRUCTURE ILLUSTRATION**


NO	COMPONENTS	MATERIALS	QTY	FINISH/SPECIFICATIONS
1	Cap	Ceramic	1	-
2	Base(Package)	Ceramic (Al <sub>2</sub> O <sub>3</sub> )	1	Color black
3	PAD	Au	2	Tungsten metalize + Ni plating + Au plating
4	Crystal blank	SiO <sub>2</sub>	1	-
5	Conductive adhesive	Ag	8	Silicon resin
6	Electrode	Noble Metal	2	-
7	Glass	-	-	-

**PACKING : (EIA-481-2)**


DIMENSIONS	A	B	C	D	E	F	G	H	(UNIT : mm)
	1.40	5.40	3.60	8.00	12.00	4.00	1.55	1.75	

**REMARK :**


DIMENSIONS	L	L1	W	W1	pcs / Reel (UNIT : mm)
	180	13	16.5	12	Standard Reel Quantity is 1,000 pcs per reel

## RELIABILITY SPECIFICATIONS

### 1. Mechanical Endurance

No.	Test Item	Test Methods	REF.DOC
1.1	Drop Test	120 cm height, 20 times on hard wood surface .	JIS C6701
1.2	Mechanical Shock	Device are shocked to half sine wave ( 3000 G ) three mutually perpendicular axes each 12 times. 0.3m sec. duration time	MIL-STD-202F
1.3	Vibration	Frequency range                      10 ~ 2000 Hz Amplitude                                 0.75 mm/10G Sweep time                                20 minute Perpendicular axes each test time   24 hours (Total test time 72 hours)	MIL-STD-202F
1.4	Solderability	Temperature                              245 ± 5 Immersing depth                         0.5 mm minimum Immersion time                            5 ± 1 seconds Flux    Rosin resin methyl alcohol solvent ( 1 : 4 )	J-STD-002
1.5	Terminal Strength	Mount on PCB board and shear strength 1.8kg for 60 sec.	AEC-Q200-005

### 2. Environmental Endurance

No.	Test Item	Test Methods	REF. DOC
2.1	Resistance To Soldering Heat	Pre-heat temperature                    125 Pre-heat time                              60 ~ 120 sec. Test temperature                         260 ± 5 Test time                                    20 ± 1 sec.	MIL-STD-202F
2.2	High Temp. Storage	+ 125 ± 3 for 1000 ± 12 hours	MIL-STD-883E
2.3	Low Temp. Storage	- 40 ± 3 for 1000 ± 12 hours	
2.4	Thermal Shock	Total 1000 cycles of the following Thermal Shock 	MIL-STD-202F
2.5	Temperature Cycle	Total 1000 cycles of the following temperature cycle - 40 ± 3 to 125 ± 3 , Dwell time <15min. ,	
2.6	High Temp & Humidity	85 ± 3 , RH 85% , 1000hours	MIL-STD-202F
2.7	Moisture Resistance	10 cycles ( +25 ~65 , 80%~100% RH ) , 24hrs/cycle	MIL-STD-202F
2.8	Operational Life	+ 125 ± 3 for 1000 ± 12 hours , rated V :1MΩ	MIL-STD-202F



单击下面可查看定价，库存，交付和生命周期等信息

[>>TXC\(台湾晶技\)](#)