



PRODUCT SPECIFICATION SHEET

PRODUCT TYPE : SMD SEAM SEALING X'TAL 3.2*2.5

NOMINAL FREQ. : 13.000000MHz

TXC P/N : 7M13000042

REVISION : S1

Dept.	PM	PE/RD	QA	MFG
Name	<i>Shannon Chen</i>	<i>Scott Chen</i>		
Date	<i>13-Jan-05</i>	<i>13-Jan-05</i>		

NOTE

- (1) Revision "Sx" is for engineering samples only. PM and PE/RD's approval required.
- (2) Revision "Ax" is production ready. PM, PE, QA and MFG's approval required

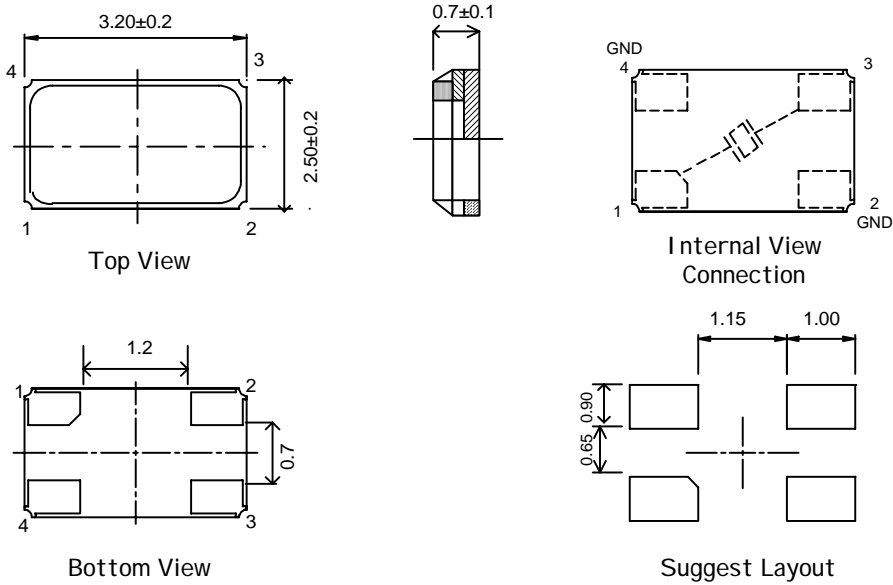


<u>Rev</u>	<u>Revise page</u>	<u>Revise contents</u>	<u>Date</u>	<u>Ref.No.</u>	<u>Reviser</u>	<u>Page</u>	<u>Ver.</u>
S1	N/A	Initially revised	13-Jan-05	N/A	繆亞娟	1	S1
						2	S1
						3	S1
						4	S1
						5	S1
						6	S1

ELECTRICAL SPECIFICATIONS

	Parameters	SYM.	Electrical Spec.				Notes
			MIN	TYPE	MAX	UNITS	
1	Nominal Frequency	FL	13.000000			MHz	-
2	Oscillation Mode	-	Fundamental			-	-
3	Load Capacitance	CL	10			pF	-
4	Frequency Tolerance	-	±20			ppm	at 25 ± 3
5	Frequency Tolerance	-	±20			ppm	Over Operating Temp. Range (Reference 25)
6	Operating Temperature	-	-10	~	60		-
7	Aging	-	±3			ppm	1st Year
8	Circuit	-	-	-	-	-	Measured by HP E5100A
9	Drive Level	DL	-	10	-	uW	-
10	Effective Resistance Rr	Rr	-	-	80		-
11	Shunt Capacitance C0	C0	1.0	-	2.0	pF	-
12	Motional Capacitance C1	C1	-	-	NA	fF	-
13	Insulation Resistance	-	500	-	-	M	at DC 100V
14	Storage Temperature Range	-	-40	~	85		-

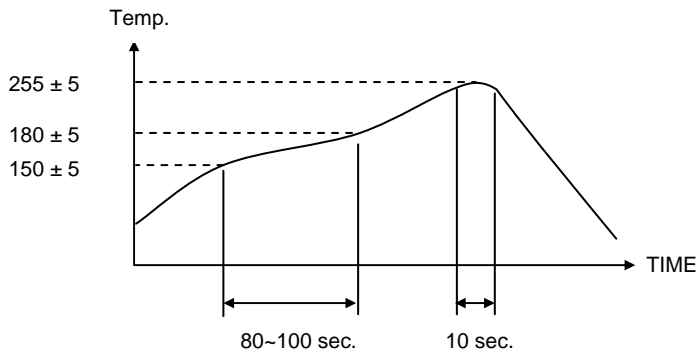
DIMENSIONS (UNIT:mm)



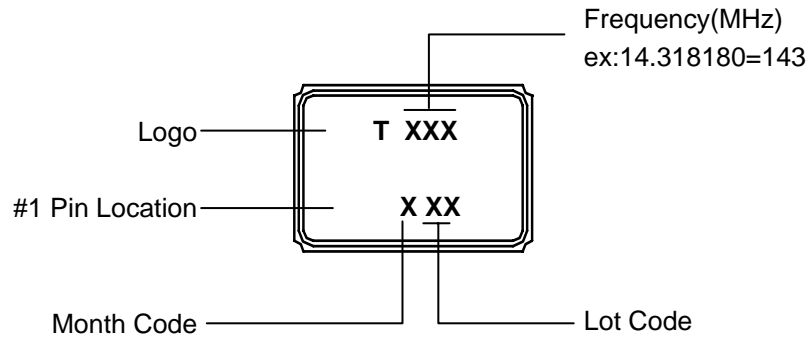
SUGGESTED REFLOW PROFILE

Total time : 200 sec. Max.

Solder melting point :185



MARKING

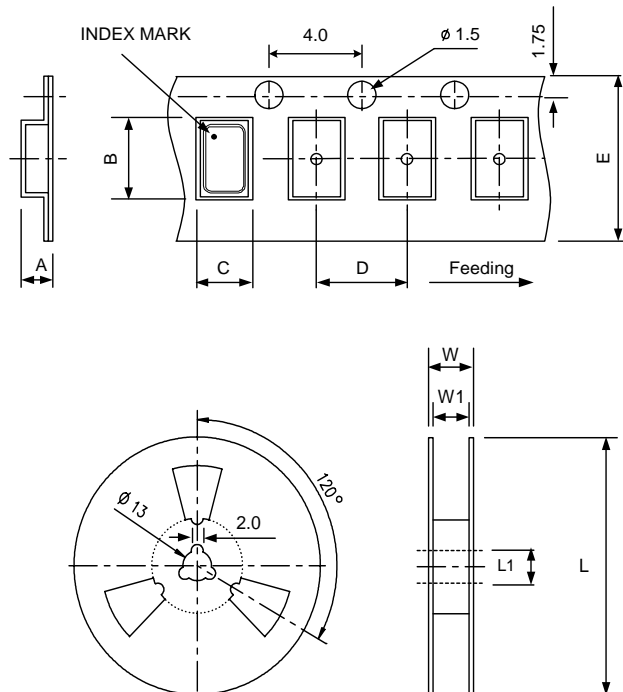


Date Code

YEAR					MONTH											
					JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2001	2005	2009	2013	2017	A	B	C	D	E	F	G	H	J	K	L	M
2002	2006	2010	2014	2018	N	P	Q	R	S	T	U	V	W	X	Y	Z
2003	2007	2011	2015	2019	a	b	c	d	e	f	g	h	j	k	l	m
2004	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

PACKING : (EIA-481-2)



DIMENSIONS	A	B	C	D	E	L	L1	W	W1	pcs / Reel (UNIT : mm)
	1.4	3.4	2.7	4	8	178	13	11.5	8	Standard Reel Quantity is 3,000 pcs per reel

- REMARK :
- 230 mm (9.05) minimum leader which consist of carrier and/or tape followed by a minimum of 160 mm (6.3) of empty carrier tape sealed with cover tape.
 - 160 mm (6.3) minimum trailer of empty carrier tape sealed with cover tape.

RELIABILITY SPECIFICATIONS

No.	Test Item	Test Methods	REF.DOC
1	Drop Test	150 cm height, fall freely onto stainless plate 3 times.	
2	Mechanical Shock	Device are shocked to half sine wave (1000 G) three mutually pendicular axes each 3 times. 0.5m sec. duration time	
3	Vibration	Frequency range 10 ~ 2000 Hz Amplitude 1.52 mm Sweep time 20 minute Pendicular axes each test time 4 hours (Total test time 12 hours)	MIL-STD-883E
4	Solderability	Temperature 255 ± 5 Immersing depth 0.5 mm minimum Immersion time 10 ± 0.5 seconds Flux Rosin resin methyl alcohol solvent (1 : 4)	MIL-STD-883E
5	Resistance To Soldering Heat	Pre-heat temperature 125 Pre-heat time 60 ~ 120 sec. Test temperature 260 ± 5 Test time 5 ± 1 sec.	MIL-STD-202F
6	High Temp. Storage	+ 85 ± 3 for 720 ± 12 hours	JIS C 6701
7	High Temp. Storage	+ 125 ± 3 for 5000 ± 12 hours	JIS C 0021
8	Low Temp. Storage	- 40 ± 3 for 500 ± 12 hours	JIS C 0020
9	Thermal Cycles	Total 100 cycles of the following temperature cycle 	



TXC CORPORATION

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SPECIFICATION FOR APPROVAL

CUSTOMER : _____
PRODUCT TYPE : SMD SEAM SEALING X'TAL 3.2*2.5
NOMINAL FREQ. : 13.000000MHz
TXC P/N : 7M13000042
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.

Attachment: Product Specification Sheet

- 1
- 2
- 3
- 4
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