TXC CORPORATION
5F, NO. 16, Sec. 2 Chungyang S Rd., Peitou, Taipei, Taiwan, R. O. C..
TEL : 886-2-2894-1202 , 886-2-2895-2201FAX : 886-2-2894-1206 , 886-2-2895-6207 www.txc.com.tw

SPECIFICATION FOR APPROVAL

CUSTOMER	:	
PRODUCT TYPE	:	SMD SEAM SEALING XTAL 5.0*3.2
NOMINAL FREQ.	:	16.000000MHz
TXC P/N	:	7B16000113
REVISION	:	A1
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
5

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PRODUCT SPECIFICATION SHEET

PRODUCT TYPE	:	SMD SEAM SEALING XTAL 5.0*3.2
NOMINAL FREQ.	:	16.000000MHz
TXC P/N	:	7B16000113
REVISION	:	A1

Dept.	PM	PE/RD	QA	MFG
Name			Steve yeh	C.W. Lee
Date	2004/5/18	2004/5/17	2004/5/18	2004/5/17

NOTE

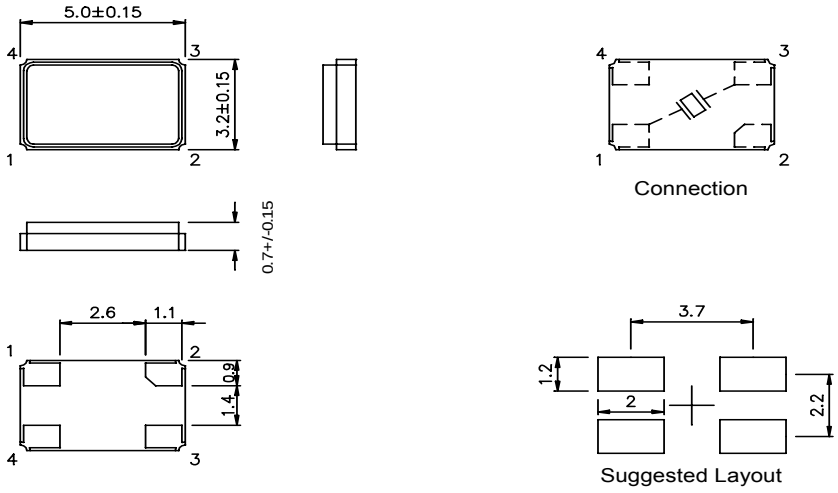
(1) Revision "Sx" is for engineering samples only. PM and PE/RD's approval required.

(2) Revision "Ax" is production ready. PM, PE, QA and MFG's approval required

ELECTRICAL SPECIFICATIONS

	Parameters	SYM.	Electrical Spec.				Notes
			MIN	TYPE	MAX	UNITS	
1	Nominal Frequency	FL		16.000000		MHz	
2	Oscillation Mode			Fundamental			
3	Load Capacitance	CL			9	pF	
4	Frequency Tolerance				±10	ppm	at 25 ℃ ± 3 ℃
5	Frequency Tolerance				±9	ppm	Over Operating Temp. Range
6	Operating Temperature		-20	~	75	℃	
7	Aging				1	ppm	1st Year
8	Circuit						Measured by HP E5100A
9	Drive Level	DL			100	uW	
10	Effective Resistance Rr	Rr			35	Ω	
11	Shunt Capacitance C0	C0			3	pF	
12	Motional Capacitance C1	C1			NA	fF	
13	Insulation Resistance				500	MΩ	at DC 100V
14	Storage Temperature Range		-40	~	85	℃	

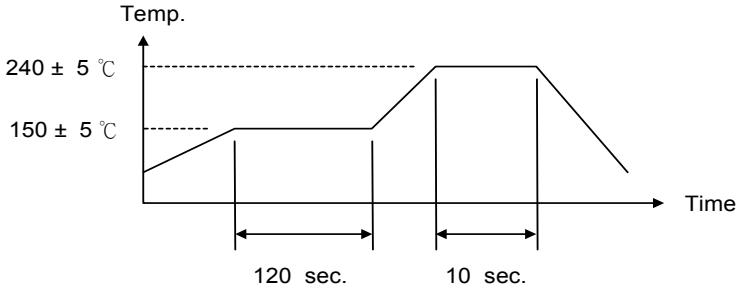
DIMENSIONS (UNIT:mm)



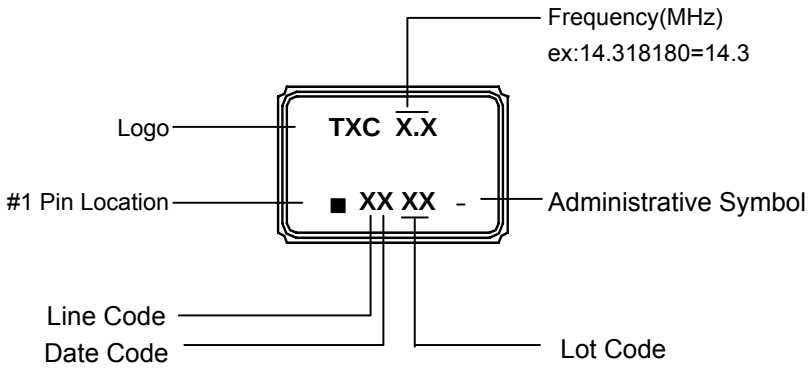
SUGGESTED REFLOW PROFILE

Total time : 200 sec. Max.

Solder melting point :185 °C



MARKING

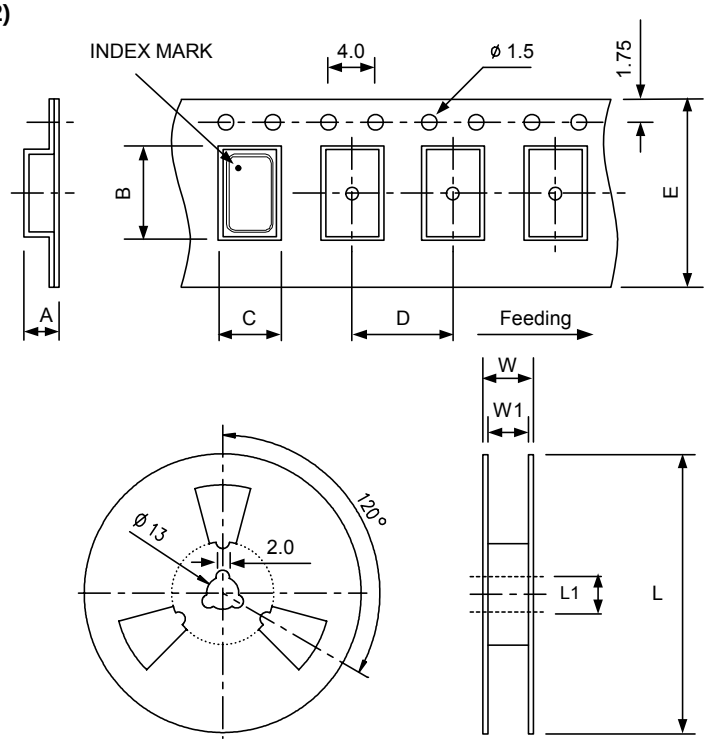


Date Code

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)

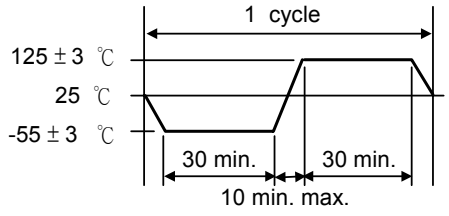


DIMENSIONS	A	B	C	D	E	L	L1	W	W1	pcs / Reel (UNIT : mm)
	1.46	5.5	3.6	8.0	12	180	13	15.4	13	Standard Reel Quantity is 1,000 pcs per reel

REMARK : 1. 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.

2. 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	75 cm height, fall freely onto stainless plate 3 times.	JIS C6701
2	Mechanical Shock	Device are shocked to half sine wave (1000 G) three mutually pendicular axes each 3 times. 0.5m sec. duration time	MIL-STD-202F
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 215 ℃ ± 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	+ 125 ℃ ± 2 ℃ for 1000 ± 12 hours	MIL-STD-883E
7	Low Temp. Storage	- 40 ℃ ± 2 ℃ for 1000 ± 12 hours	
8	Thermal Cycles	Total 100 cycles of the following temperature cycle 	MIL-STD-883E

Rev	Revise page	Revise contents	Date	Ref.No.	Reviser	Page	Ver.
A1	N/A	Initially revised	5/17/04	N/A	繆亞娟	1	A1
						2	A1
						3	A1
						4	A1
						5	A1
						6	A1