



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
Taoyuan, 324, Taiwan, R.O.C.

TEL: 886-3-4690038 FAX: 886-3-4697532

E-mail: tstsales@mail.taisaw.com Web: www.taisaw.com

Approval Sheet For Product Specification

Issued Date: 1/19/2005 (REV. NO: 1)

Product Name: SMD 4.0x2.5 24.0MHz Crystal Unit

TST Parts No.: TZ0523F

Customer Parts No : _____

Company: _____

Division: _____

Approved by: _____

Date: _____

Checked by: _____ CC Hsu

Approval by: _____ TF Yang

Date: _____ 1/19/2005



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SMD 4.0x2.5 24.0MHz Crystal Unit

MODEL NO.: TZ0523F

REV. NO.: 1

Features:

- Surface Mount Seam Weld Package
- Excellent Reliability Performance
- Good Frequency Perturbation and Stability over Temperature
- Ultra Miniature Package

RoHS Compliant
Lead free
Lead-free soldering

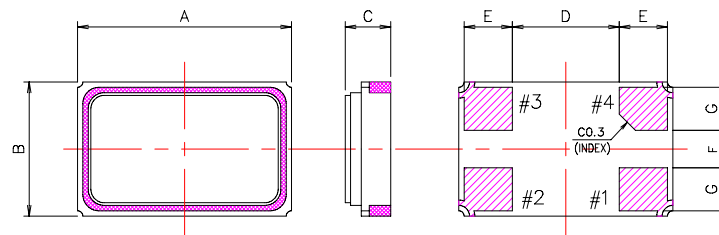
Description and Applications:

Surface mount 4.0mmx2.5mm crystal unit for customer "Taitien" only.

Electrical Specifications:

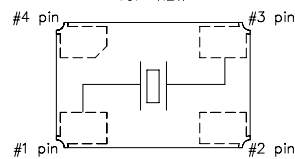
TZ0523F	Specification
Nominal Frequency	24.000000 MHz
Mode of Oscillation	Fundamental
Storage Temperature Range	-40°C to +85°C
Operating Temperature Range	-20°C to +70°C
Frequency Stability over Operating Temperature Range	+/-20 ppm (referred to the value at 25°C)
Frequency Make Tolerance (FL)	+/-10 ppm @ 25°C +/- 3°C
Equivalent Series Resistance (ESR)	45 Ω max.
Nominal Drive Level	10 uW
Shunt Capacitance (Co)	5 pF max
Load Capacitance (CL)	10 pF
Marking	Laser Marking

Mechanical Dimensions (mm):



UNIT \ ITEM	A	B	C	D	E	F	G
mm	4.0 ±0.10	2.5 ±0.10	0.80 MAX.	2.0 REF.	0.9 ±0.10	0.7 REF.	0.8 ±0.10

<PIN CONNECTION>
 TOP VIEW



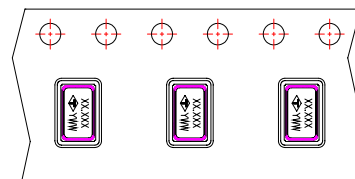
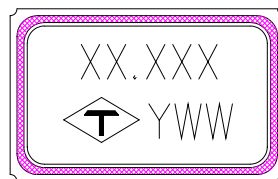
	Pin Connection
#1 pin	IN/OUT
#2 pin	GND
#3 pin	IN/OUT
#4 pin	GND

Marking #2, #4 is connected with metal cap of top.

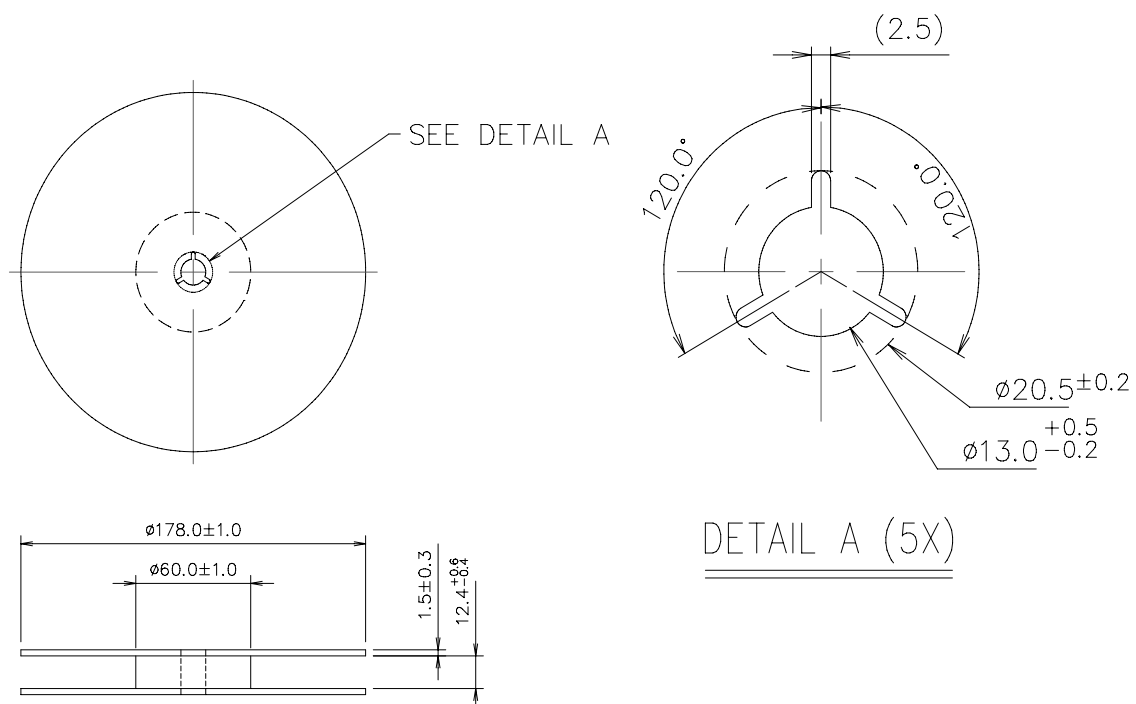
Marking:

Line 1: Frequency (24.000)

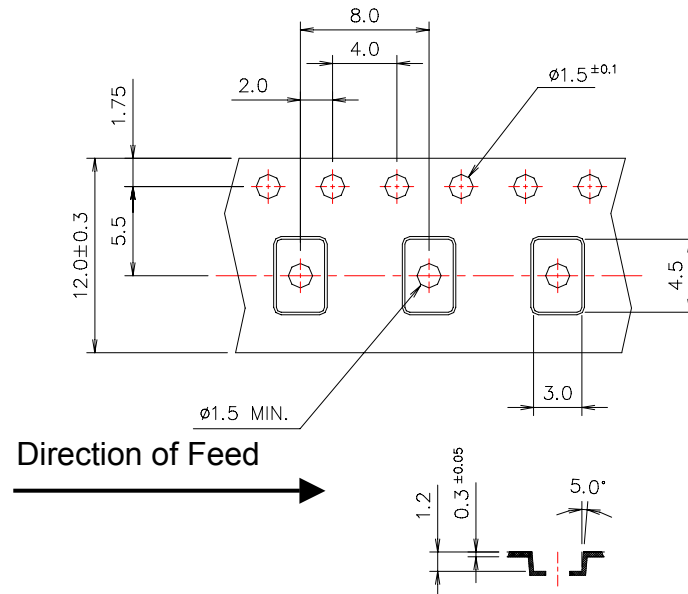
Line 2: TTE Logo + Last Digit of Year + Weekly Number



Reel Dimensions (mm):



Tape Dimensions (mm):



[NOTE]:

1. Unless otherwise specified tolerance on dimension ± 0.1 mm.
2. Material: conductive polystyrene with color black.
3. 10 pitch cumulative tolerance ± 0.2 mm.

Reflow Profile:

1. Preheating shall be fixed at $140 \sim 160^\circ\text{C}$ for $60 \sim 90$ seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 200°C for $50 \sim 60$ seconds and at $230 \pm 10^\circ\text{C}$ peak.

