JENJAAN QUARTEK CORP.

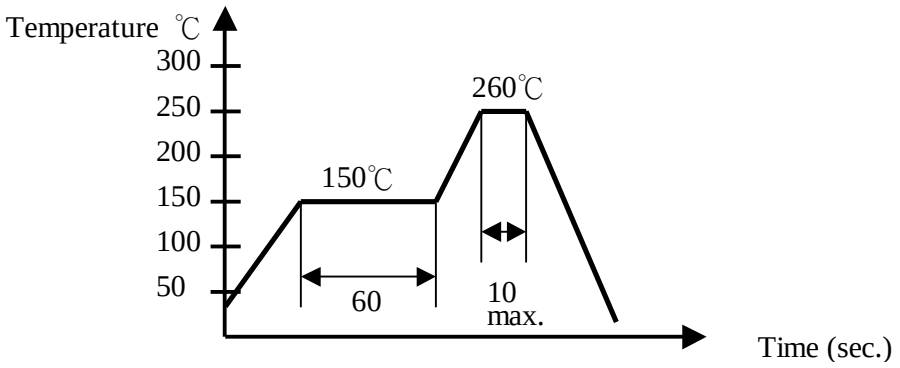
TUNING FORK CRYSTAL UNIT

P/N : NXZ32.768KAE125F-KAB3

1.ELECTRIC CHARAC:

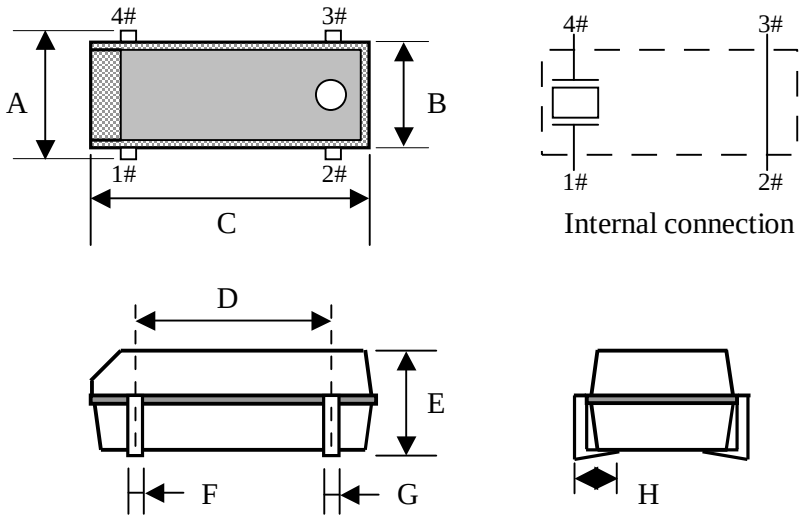
PARAMETERS		QTF-M28
Mode of Vibration		+2° X-cut , Fundamental
Nominal frequency	F	32768Hz
Load Capacitance	C_L	12.5 PF Typical
Frequency Tolerance at 25℃		± 20 ppm
Series Resistance	Rr	35 KW Max
Quality Factor	Q	40K Min
Turnover Temperature	To	25 ℃± 5℃
Temperature Coefficient	K	-0.035 ppm/℃^{2} Typical
Operation Temperature		-40 ℃~ +85℃
Shunt Capacitance	Co	1.6PF Typical
Aging 1st Year	Δf/f	± 5 ppm max.
Shock Resistance		± 5 ppm max.
Capacitance Ratio		520 Typical
C_0/C		500MW at DC 100V ± 15V
Insulation Resistance		1 mW
Drive Level		

2.REFIOW SOLDERING PROFILE



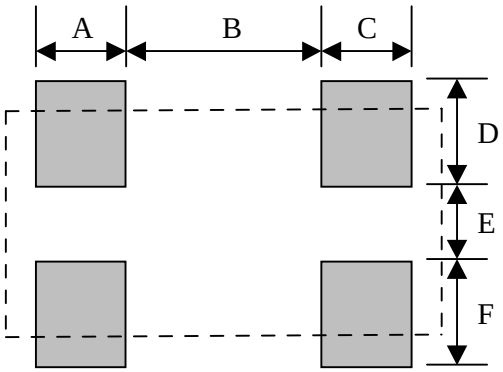
Total time 200sec. max.

3.DIMENSION:



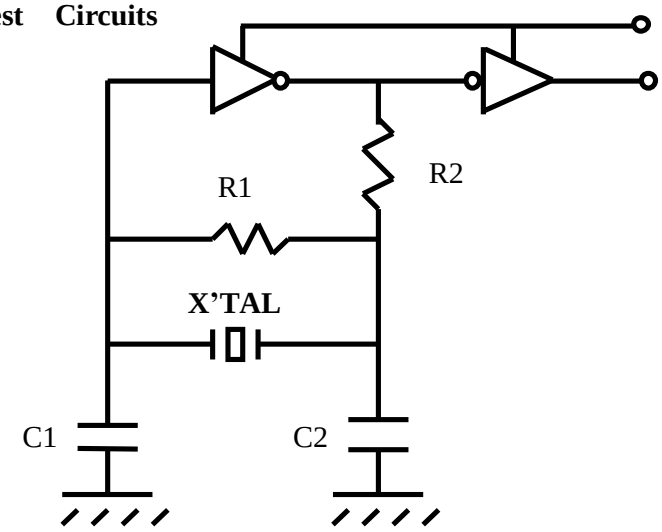
TYPE	A	B	C	D	E	F	G	H
QTF-M28	3.8±0.2	3.2±0.2	8.0±0.2	5.5±0.1	2.5±0.1	0.5±0.1	0.5±0.1	0.9

4.LAND PATTERN LAYOUT (EXAMPLE)



TYPE	A	B	C	D	E	F
QTF-M28	1.3	4.2	1.3	1.9	1.3	1.9

*** Test Circuits**



V. D.D. : 5.0 V
R1 : 10 MΩ
R2 : 220 Ω
C1 : 20 Pf
C2 : 30 Pf

5. PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

5-1. Humidity

Subject the crystal at 40℃± 2℃ and 90% - 95% RH for 96±4 hours . Then release the crystal into the room conditions for 1 hour prior to the measurement .

5-2. High Temperature Exposure

Subject the crystal to 85℃± 5℃ for 96±4 hours . Then release the crystal into the room conditions for 1 hour prior to the measurement .

5-3. Low Temperature

Subject the crystal to -20℃± 5℃ for 96±4 hours . Then release the crystal into the room conditions for 1 hour prior to the measurement .

5-4. Mechanical Shock

Drop the crystal randomly onto a concrete floor from the height of 75cm 3 times .

5-5. Temperature Cycling

Subject the crystal to -30℃ for 30 min. followed by a high temperature of +85℃ for 30 min. Cycling shall be repeated 5 times with a transfer time of 15 sec. at the room condition . Then release the resonator into the room temperature for 2 hours prior to the measurement .

5-6. Vibration

Subject the crystal to vibration for 2 hours each in x, y, and z axes with the amplitude of 1.5mm, the frequency shall be varied uniformly between the limits of 10-55 Hz .

5-7. Resistance to Solder Heat

Dip the crystal terminals no closer than 2 mm into the solder bath 260℃±5℃ for 5±1 sec; Then release the crystal into the room temperature for 1 hour prior to the measurement .

5-8. Solder Ability

Dip the crystal terminals no closer than 2 mm into the solder bath at 235℃± 5℃ for 3±0.5 sec. . more than 95 ％of the terminal surface of the crystal shall be covered with fresh solder.

5-9. Lead Fatigue

1) Pulling Test

Weight along with the direction of terminals without any shock 0.5kg for 10±1sec.; The crystal shall no evidence of damage and shall fulfill all the initial electric characteristics。

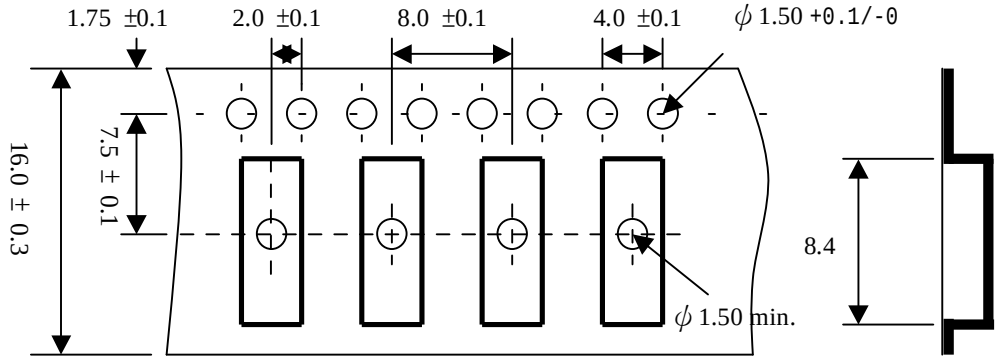
2) Bending Test

Lead shall be subject to withstand against 90 degree bending at its stem • This operation shall be done towards both direction; The crystal shall no evidence of damage and shall fulfill all the initial electric characteristics。

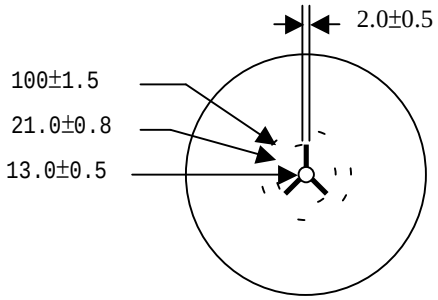
6. REVIEW OF SPECIFICATION

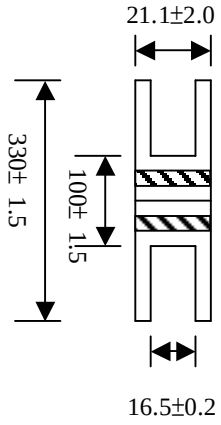
When something get doubtful with this specifications，we shall jointly work to get an agreement。

5. TAPE AND REEL DIMENSIONS



W	16.0 ±0.3
A0	4.05 ±0.1
B0	8.4 ±0.1
K0	2.9 ±0.1





1. 10 sprocket bole pitch cumulative tolerance ±0.2
2. Carrier camber is within 1 mm in 250 mm
3. Material : Transparent Polystyrene Alloy (UP-6100)
4. All dimensions meet EIA-48I-Brequirements
5. Thickness : 0.35 ±0.05 mm
6. Packing length per 22” reel : 62.5Meters
7. Component load per 13” reel :1000 pcs