



SPECIFICATION FOR PIEZO ELECTRIC BUZZER

TOTAL PAGE

06

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Customer		Model Name	FT-10T-17A1
Customer P/N		Product No.	
Date	13 Oct. 15	Issue No.	BS/TEY01. 621
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Approval:

- 1.Electrical characteristics
- 2.Dimension
- 3.Characteristics
- 4.Measuring Method
- 5.Reliability Test
- 6.Packing
- 7.History Change Record

Drawn by	Checked by	Approved by	Customer approved

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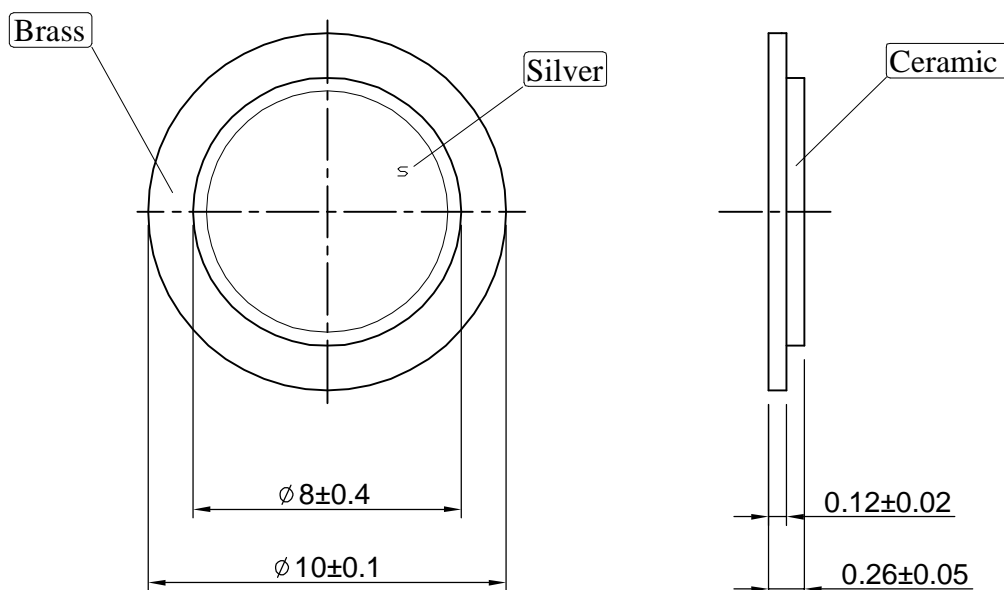
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FT-10T-17A1

1.Electrical characteristics

1.	Resonant Frequency	17±1.5 K Hz
2.	Resonant Impedance	1000 ohm max.
3.	Capacitance at 1 kHz	11.0±30% nF
4.	Input Voltage	3~25 Vp-p
5.	Operating Tmperature	-40...+85°C
6.	Storage Temperature	-40...+85 °C
7.	Metal Material	Brass

2.Drawing



Unit:mm

A				Date:	15/10/13	FT-10T-17A1		
				Drawn by:	Li u Rufeng			
				Checked by:	Yu Fangyun			
	Rev.	Date	Drawn	Note	Approved by:	Li Hongyuan	Piezo Ceramic Element	
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3.Characteristics:

3.1 Solderability

Solder AWG 32 wire with solder wire(Pb10Sn88Ag2) at $280\pm 10^{\circ}\text{C}$ on the ceramic , less than 2 seconds duration of soldering.

3.2 Lead pull off test

a) Wire to be soldered on ceramic at the edge. It should withstand minimum 10N force applied in 180° .The wire should not come out before this .The ceramic can be either glued on a surface of can be held in hand.(Fig.3.2)

b) Wire to be soldered on ceramic at the edge&should be pulled up at 90° The element should be hold on bottom and wire should be pulled up .It should withstand at least for 2.5N force(Fig.3.1)

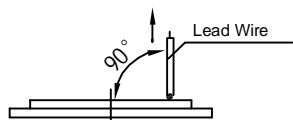


Fig.3.1 Direction of Lead Wire

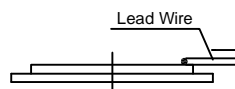


Fig.3.2 Direction of Lead Wire

4.Measuring Method

4.1.Resonant Frequency/ Resonant Impedance:

Piezoelectric disc shall be clamped at a node or edge point ,figure to be free from any mechanical stresses,and measure its resonant frequency and resonant impedance by using vector impedance analyzer or equivalent.

Input frequency shall be swept within 15 to 25 kHz, where the resonant frequency is defined and the frequency where the impedance shows minimum value, this impedance shall be the resonant impedance.

4.2.Capacitance:

A electrostatic capacity capacitance shall be measured at 120Hz by using LCR meter, such as DF2812A LCR number bridge or equivalent. The part shall be clamped in the same way as the measurement of resonant frequency / resonant impedance mentioned in section 4.1.

4.3.Insulation Resistance:

An insulation resistance shall be measured by using an insulation resistance meter,suach as DF2863 insulation resistance meter.

4.4.Measureing Condition:

Parts shall be measured under a condition(Temperature: $+15^{\circ}\text{C}$ to $+30^{\circ}\text{C}$,Humidity:60 to 90% R.H.) unless the standard condition(Temperature: $+25\pm 3^{\circ}\text{C}$,Humidity: $60\pm 10\%$ R.H.)is redulated to measure.

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5. Reliability Test:

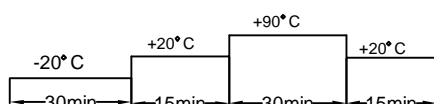
5.1. High Temperature Test

Temperature +90°C
Duration 240hrs

5.2. Low Temperature Test

Temperature -20°C
Duration 240hrs

5.3. Temperature Cycle Test



all these tests above should be measured after leaving normal temperature for 2hrs.

Cycles 5

5.4. Humidity

Temperature 40±2°C

Relative Humidity

90~95R.H.

Duration 240hrs

5.5. Vibration Test

Vibration Frequency 10~55Hz

Amplitude 1.52mm

Duration 2 hrs each of 3 axis

5.6. Shock

Piezoelectric disc shall be measured after applying shock at (980m/s²) for each three mutually perpendicular (XYZ) directions by half sine waves, 3 times each

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6.Packing

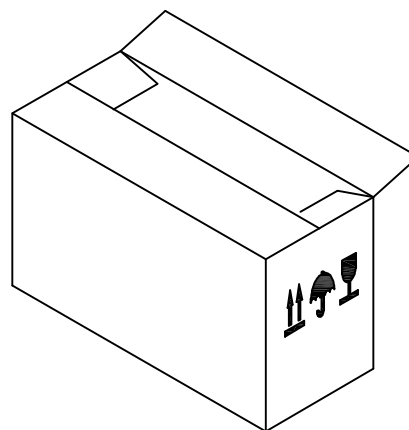
6.1Packing Drawing

products

100PCS

Box

2000PCS



6.2 packing quantity

6.2-a 2000pcs per box

6.2-b 56 boxes per carton

6.2-c Total 112000pcs per carton

6.2-d Carton size 50x27x26cm

6.2-e Piezos shall be packaged in suitable low-sulfur .
air tight stacking containers to prevent oxidation of the
metal disc. corrosion of the silver electrode. And damage
during shipment and storage. Cartons shall be stackable
to four feet high without damage to piezos.

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7. History change record

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