



# SPECIFICATION FOR PIEZO ELECTRIC BUZZER

TOTAL PAGE 07

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Customer		Model Name	FT-32T-3.1A12
Customer P/N		Product No.	
Date	24 Aug. 09	Issue No.	BS/TEY01.286A
Page	01 of 07	Issue Date	09/08/24

Approval:

- 1.Electrical characteristics
- 2.Dimension
- 3."Pull off"force between silver and ceramic layer
- 4.Reliability Test
- 5.Packing
- 6.History change record

Drawn by	Checked by	Approved by	Customer approved

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# FT-32T-3.1A12

## 1. Electrical characteristics

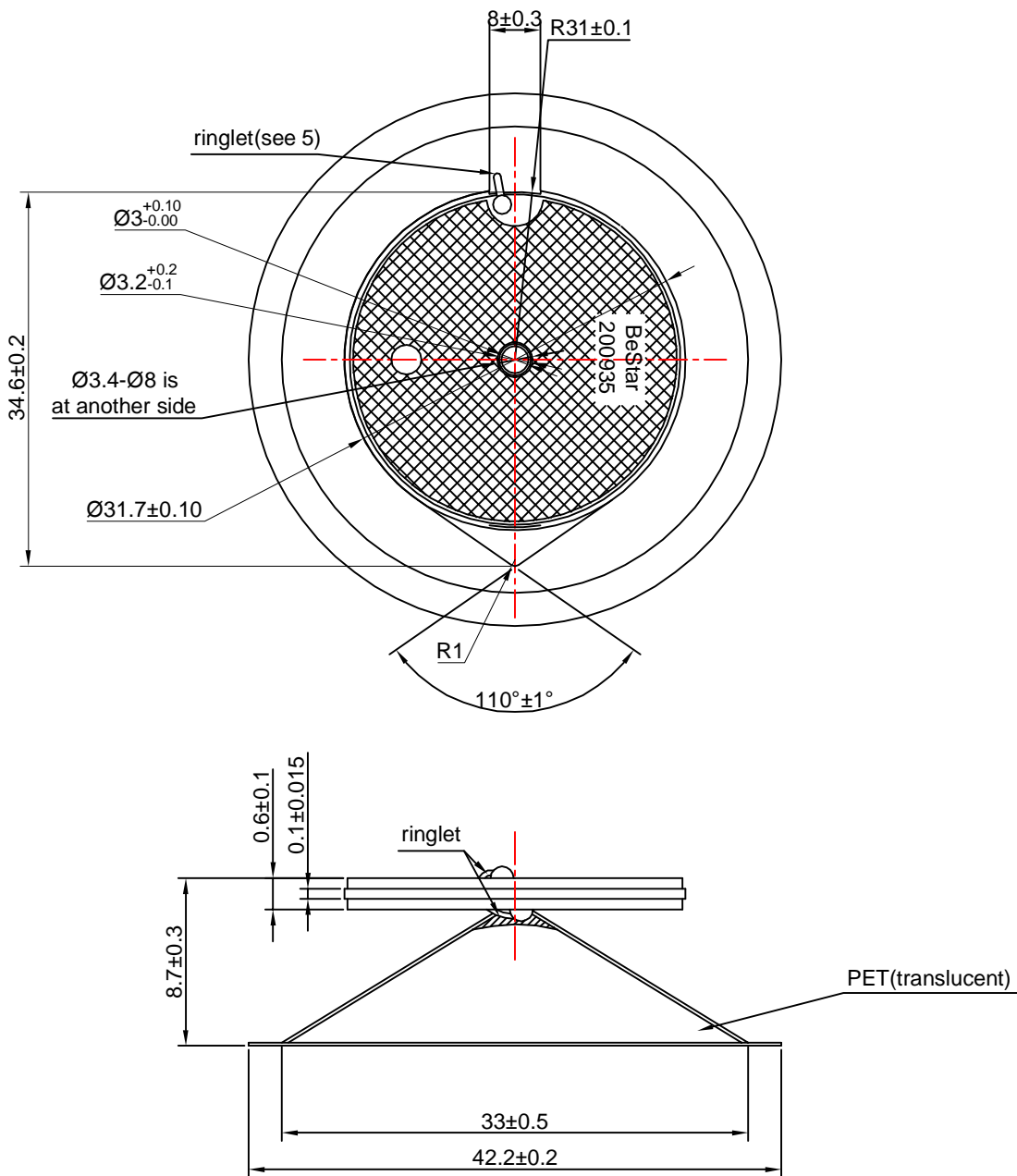
No.	Item	Specification	Condition
1.	Resonant Frequency	3.1±0.15KHz	
2.	Resonant Impedance	100ohm max	
3.	Static Capacitance	110±10%nF	at 120Hz/1V
4.	Insulation Resistance	Min.200M ohm	
5.	Operating Voltage	70 Vp-p	
6.	"Pull off"force between silver and ceramic layer (horizontally)	20N min	
7.	"Pull off"force between silver and ceramic layer (vertically)	2.5N min	
8.	Operating Temperature	-40...+85°C	
9.	Storage Temperature	-40...+90°C	
10.	Lead Wire	UL1571-AWG #28	
11.	Metallic supporter	H65	
12.	Membrane	PET(translucent)	
13.	Sound Pressure Level	≥100 dB 300mm	

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Rev.	Date	Drawn	Note	Approved by:	李红元		
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## 2.Dimension



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# FT-32T-3.1A12

**Notes:**

- 1.Element shall be free from obvious contamination,deep scratches and metal deformation.
- 2.Tolerance of concentricity between metal disc and ceramic shall be within 0.5mm.
- 3.All solder points shall be prevented by the isolation glue.
- 4.Eccentricity of the inner circle and outer circle of metallic plate is 0.3.
- 5.Eliminate the leaning metallic part,up to ceramics part,to avoid the short circuit with the metallic ringlet.
- 6.The number of 200935 at the piezo is the mean that 2009 show the year of manufacture,35 show the period of manufacture in a year.

### 3."Pull off"force between silver and ceramic layer

**Note:**

3.1 Lead wire (UL 1571 AWG#28)to be soldered on the silver by handsoldering at  $300 \pm 10^{\circ}\text{C}$  duration  $2 \pm 0.5$  sec

3.2.a Pull force by hozizontal direction is  $\geq 20\text{N}$

3.2.b Pull force by vertical direction is  $\geq 2.5\text{N}$

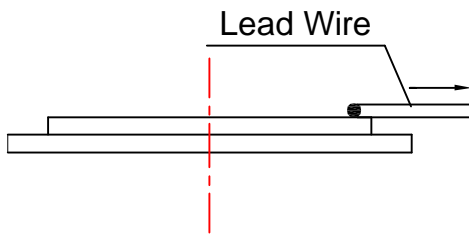


FIG.1 Direction of Lead Wire (horizontally)

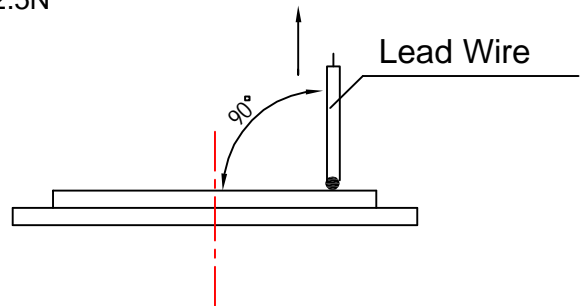


FIG.2 Direction of Lead Wire (vertically)

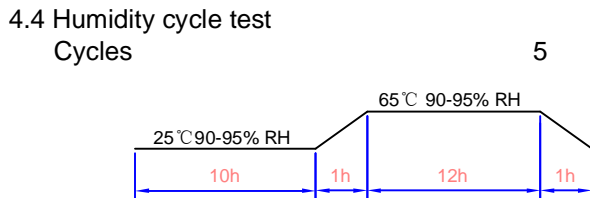
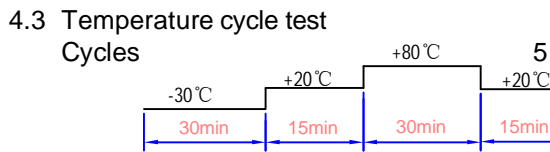
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## 4. Reliability test

- 4.1 Life test at high temperature
  - Temperature +80°C
  - Duration 96hrs
- 4.2 Life test at low temperature
  - Temperature -30°C
  - Duration 96hrs



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

- 4.5 Vibration Test
  - Vibration Frequency 10~55Hz
  - Amplitude 1.53mm
  - Direction 3(x.y&z)
  - Duration 2hrs each direction (total 6 hrs)
- 4.6 Drop test
  - Height 100cm
  - (to 10mm thickness woodenboard)
  - Direction 3(x.y&z)
- 4.7 Solderability Test
  - Soldering Temperature 255 °C
  - Duration 3 sec
- 4.8 Accelerated Life Test (ALT)
  - Thermal Cycling :  
Thermal Cycling consists of temperature ramping components for 30 minutes in the Testing oven from -20°C to 70°C. The components are then exposed for 1 hour at The extremes and the cycle is repeated for a total of 15 cycles..
  - Thermal Soak:  
Thermal soak consists of exposing a powered unit to 70°C and 85% relative humidity for 45 days.

Notice: All specifications must be satisfied in this condition.

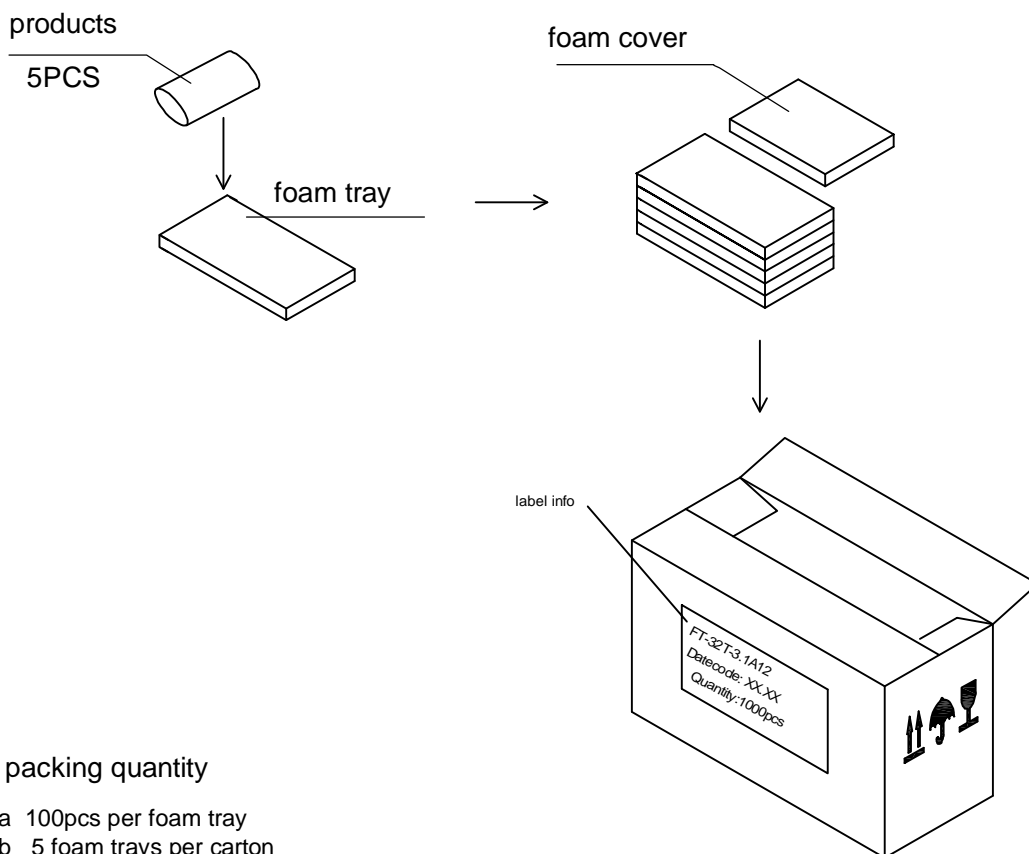
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## 5.Packing

### 5.1 Packing Drawing



### 5.2 packing quantity

- 5.2-a 100pcs per foam tray
- 5.2-b 5 foam trays per carton
- 5.2-c Total 1000pcs per carton
- 5.2-d Piezo shall be packaged in suitable foam box and carton containers to prevent from 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 damaging to piezo.

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