Product Specification

Product Name:	Self-Driven Piezo Transducer
Part Number:	TFM-32
Version:	1.01
Date:	2015-5-11
Note:	

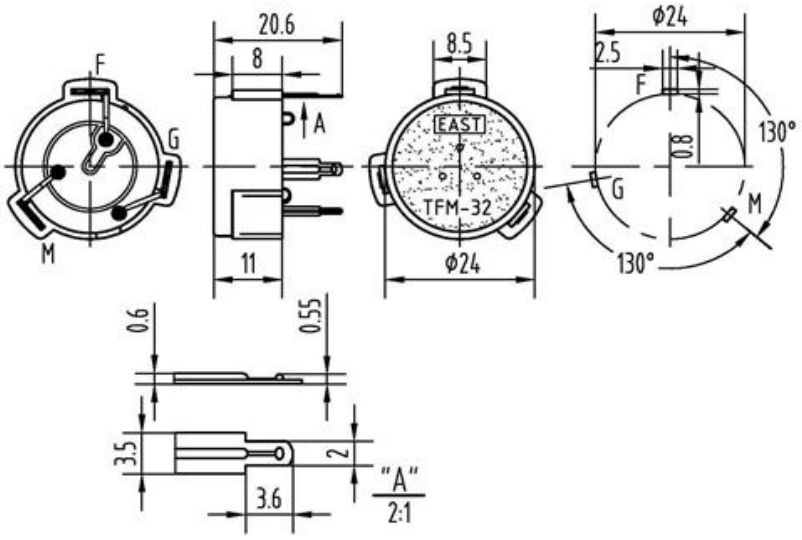
Company passed ISO 9001 / ISO TS16949 / ISO 14001Certifications

Revision History

Rev.	Description	Author/Date	Checked By	Approver
1.01	Quality Certificate Symbol revised	刘进 2015-5-11	汤礼东	王建成
1.0	Released	汤礼东 2011-7-29	张春雷	王建成

1. Part Number TFM-32

2. Dimension Drawing (Unit: mm)



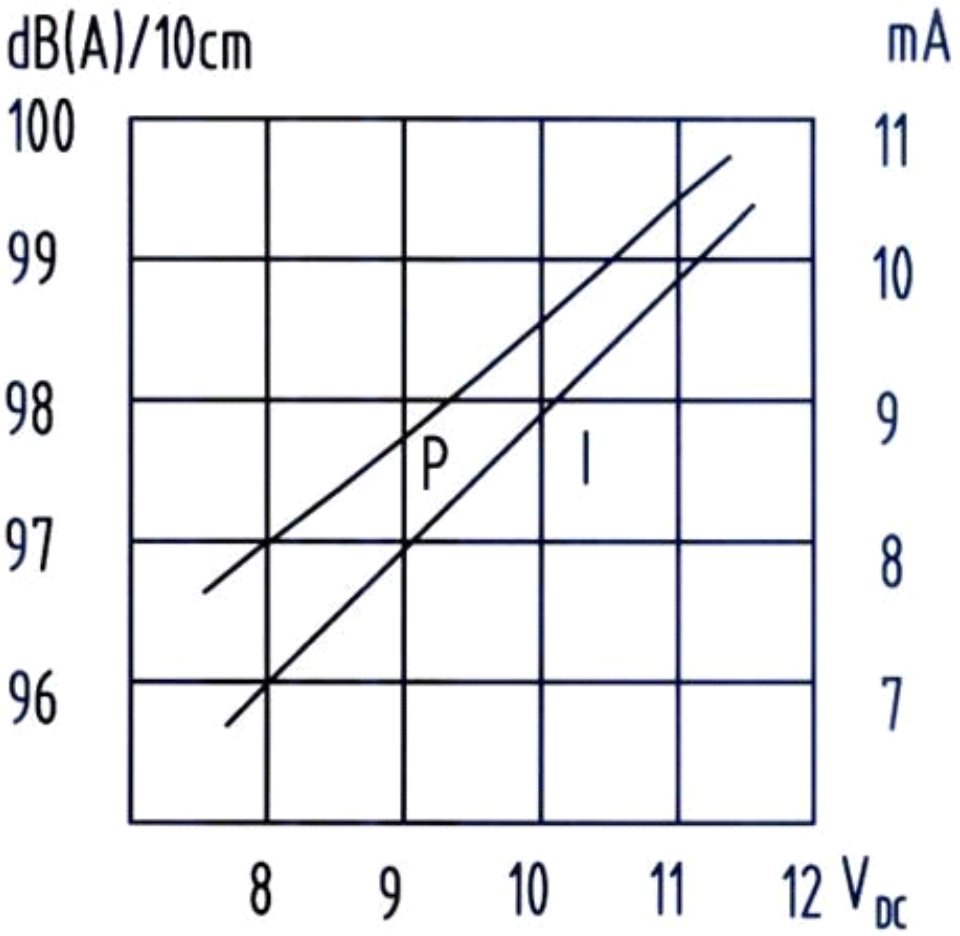
3.Specification

No.	Item	Specification
3-1	Min. Sound Pressure Level	90dB/10V_{DC}/10cm
3-2	Rate Voltage	10V_{DC}
3-3	Operating Voltage	8~12V_{DC}
3-4	Max. Consumption	15mA/10V_{DC}
3-5	Oscillating Frequency	3.5± 0.6kHz
3-6	Tone Nature	Continuous
3-7	Operating Temperature	-20~+70ºC
3-8	Storage Temperature	-30~+80ºC
3-9	Case Material /Color	PC/Black
3-10	Weight	3.5g
3-11	Pin Strength	More Then 10N

NOTES：

Test should be made under the conditions of room temperature (20±10℃), normal humidity (60±20%) and normal atmospheric pressure. In this case, however, that the judgment is questionable, the test conditions are to be changed to room temperature 20±2℃, relative humidity 60~70% and normal atmospheric pressure

4.Typical Frequency Response Curve



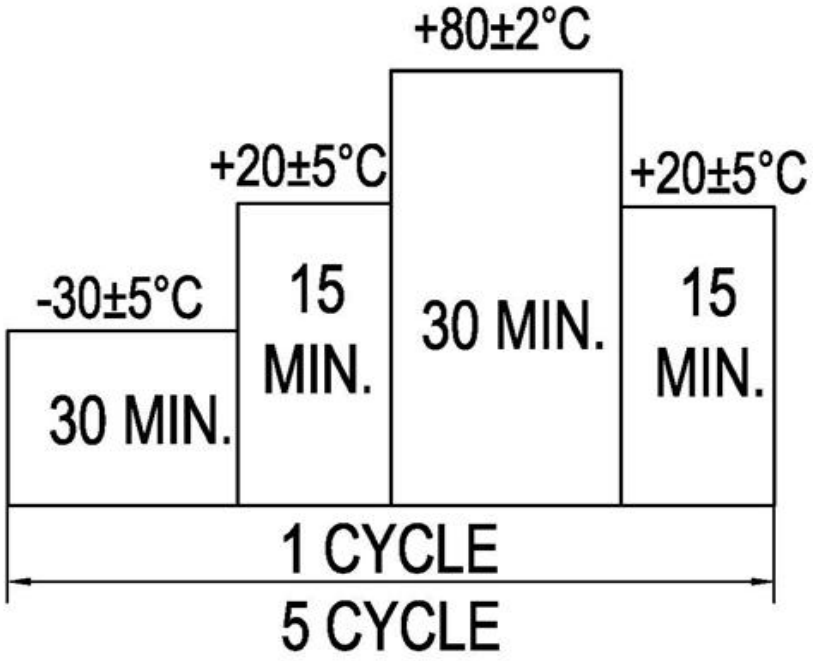
Note: Distance 10 cm

5. Reliability Test

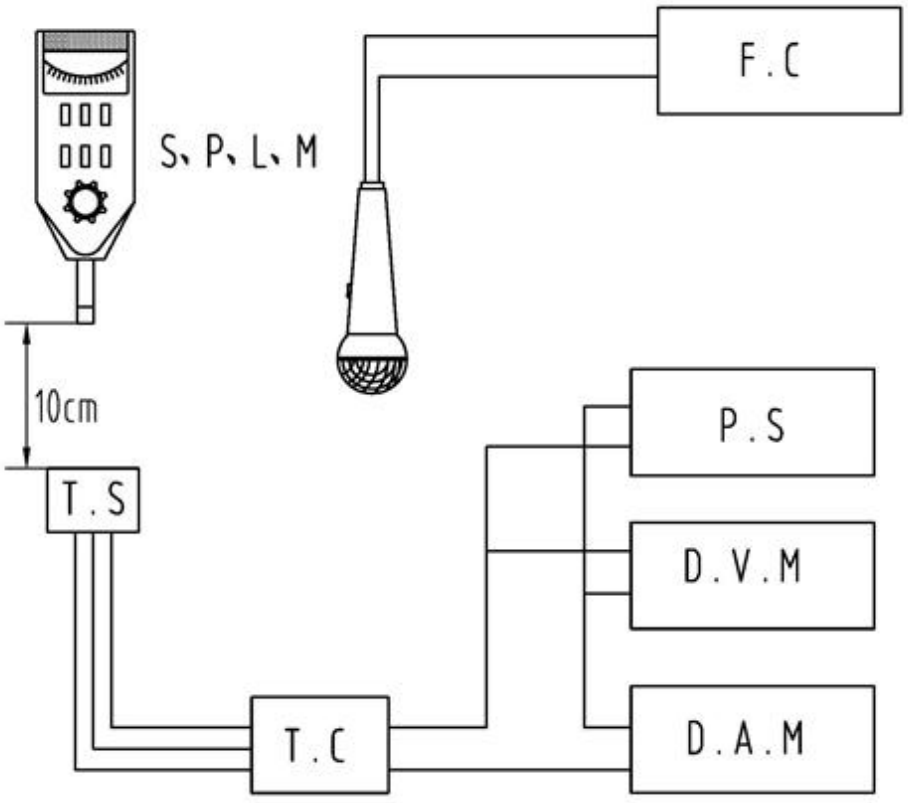
No.	Item	Method of Test	Tolerance after Testing
5-1	Operating Temperature	-20~70℃	Sound pressure level initial value ±10dB Max. consumption value ±20% Capacitance value ±20%
5-2	Storage in high temperature	Storage in +80℃ test box 96 hours then exposed to the room temperature for 2 hours	
5-3	Storage in low temperature	Storage in -30℃ test box 96 hours then exposed to the room temperature for 2 hours	
5-4	Life test in the room temperature	Operate the product continuously 5 seconds on 5 seconds off 300 hours at rated voltage	
5-5	Temperature / humidity cycle test	Storage in +40℃, 93±3%RH test box 96 hours then exposed to the room temperature for 2 hours	
5-6	Temperature (high and low) cycle test	Conduct the test for 5 cycles without applying power then expose to the room temperature for 2 hours.(See Figure 5-6)	

5-7	Vibration test	Conduct the test for the directions of X Y and Z for 0.5 hour each (total 1.5 hours). To-and Fri sweep time(from 10 to 55Hz and then 55 to 10) under single amplitude of 0.75mm is 3 minute, then expose to the room temperature for 2 hours	
5-8	Drop test	Drop a product naturally from the height of 700mm onto the surface of 100mm thick wooden board. Two directions: upper and side of the product are to be applied for this drop test once respectively	
5-9	Soldering heat resistance test	Dip the connecting pins in soldering at 260±5℃ for 10±1 seconds	
5-10	Test of soldering	Dip the connecting pins in soldering at 230±5℃ for 3±0.5 seconds	Solder shall be attached around over 95% of the dipped portion
NOTE: The pins are allowed to deform after drop test.			

Figure 5-6

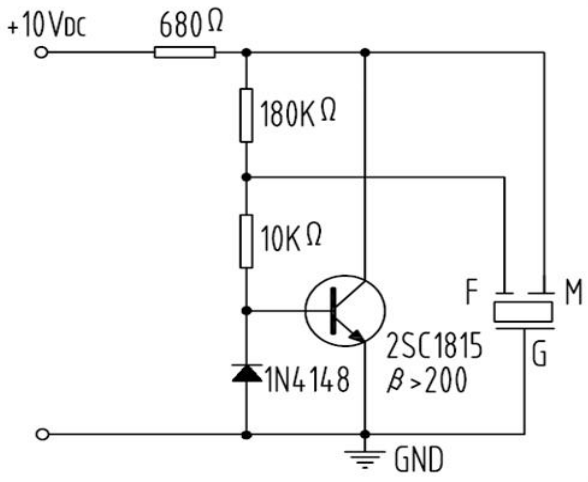


6. Electrical Testing Method



S.P.L.M	Sound Pressure Level Meter
T.S	Testing Sample
F.C	Frequency Counter
T.C	Test Circuit
P.S	Power Supply
D.V.M	DC Voltage Meter
D.A.M	DC Ampere Meter

TC:



7. Packing Information

Packing: 1500pcs per export carton
Carton Size: 47× 30.5× 35 cm
G. Weight: 6.8 kgs N. Weight: 5.3 kgs