Product Specification

Product Name:	Piezo Buzzer
Part Number:	EFM-282
Version:	1.01
Date:	2015-2-6
Note:	

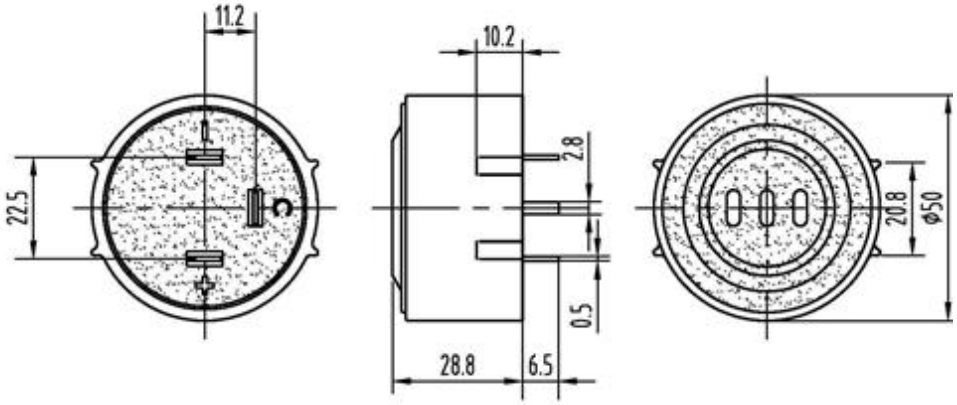
Company passed ISO 9001 / ISO TS16949 / ISO 14001Certifications

Revision History

Rev.	Description	Author/Date	Checked By	Approver
1.01	Quality Certificate Symbol revised	吕文斌 2015-2-6	汤礼东	王建成
1.0	Released	汤礼东 2011-12-9	张春雷	王建成

1. Part Number EFM-282

2. Dimension Drawing (Unit: mm)



Only when apply $12V_{DC}$ on pin "c",the product can produce sound

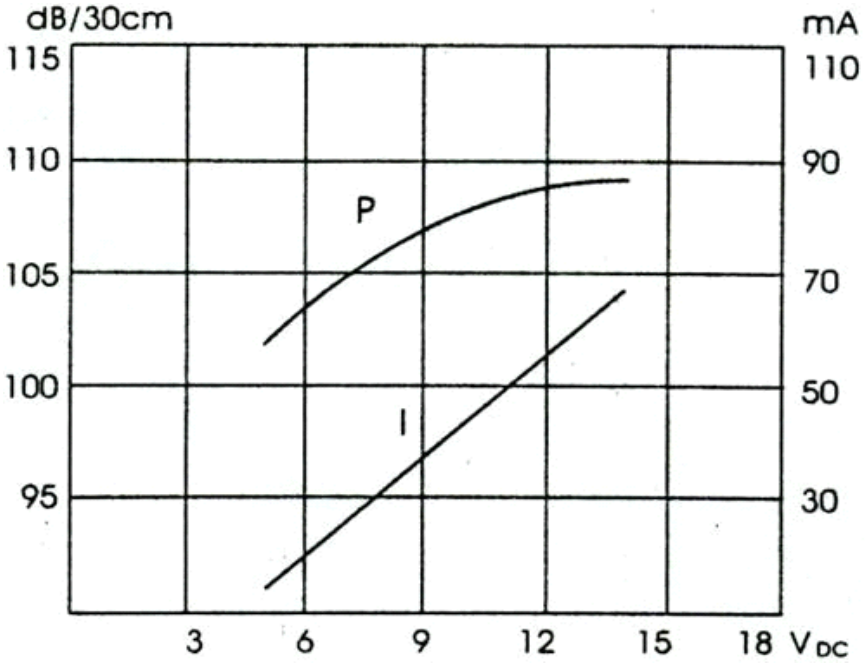
3.Specification

No.	Item	Specification
3-1	Min. Sound Pressure Level	108dB/$12V_{DC}$/30cm
3-2	Rate Voltage	$12V_{DC}$
3-3	Operating Voltage	5~$13V_{DC}$
3-4	Max. Consumption	75mA/$12V_{DC}$
3-5	Oscillating Frequency	2.5± 0.5kHz
3-6	Tone Nature	Continuous
3-7	Operating Temperature	-20~+70ºC
3-8	Storage Temperature	-20~+70ºC
3-9	Case Material /Color	ABS/Black
3-10	Weight	28g
3-11	Pin Strength	More than 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



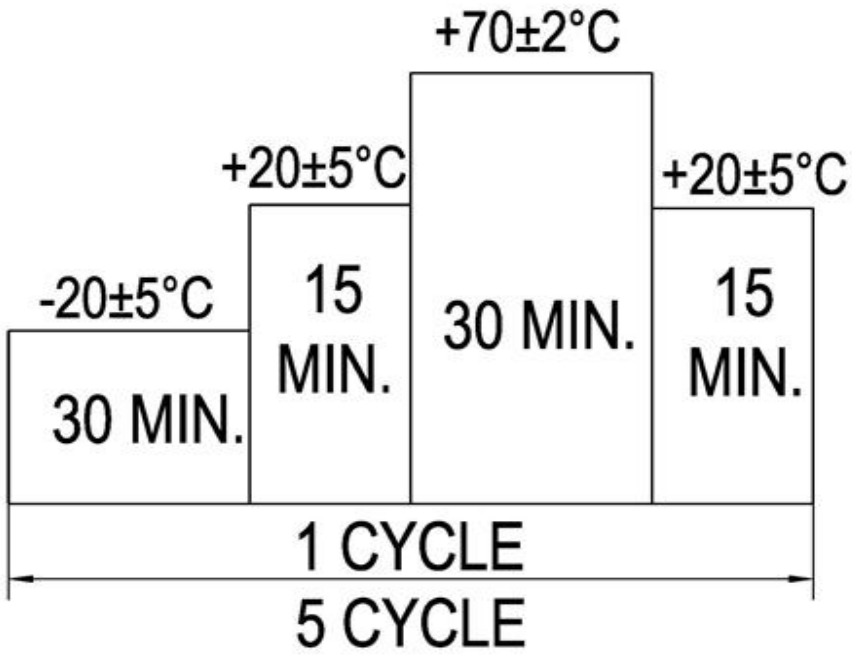
Note: Distance 30cm

5. Reliability Test

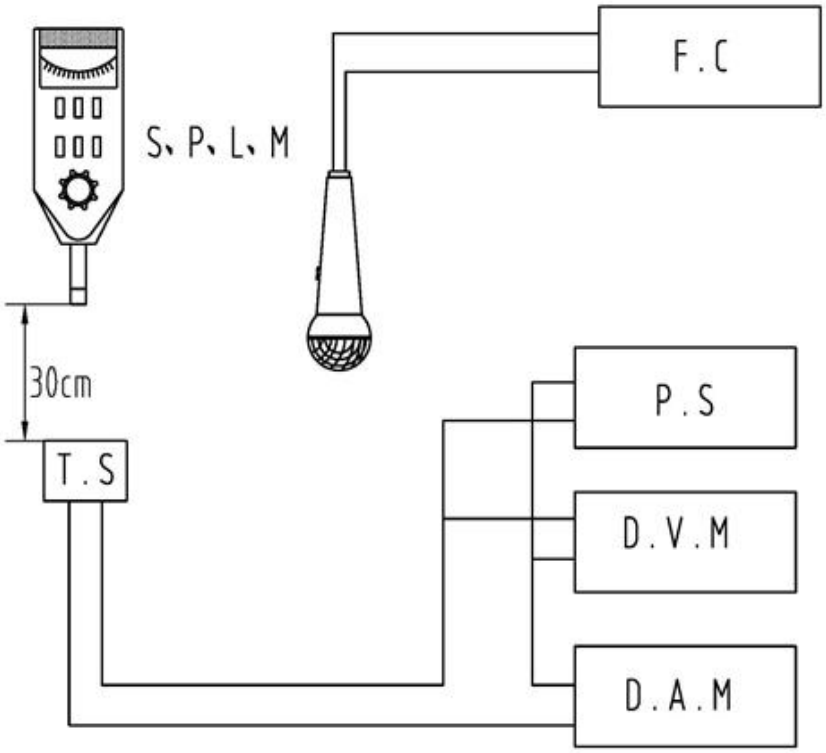
No.	Item	Method of Test	Tolerance after Testing
5-1	Operating Temperature	-20~+70℃	Sound pressure level initial value ±10dB Max. consumption value ±20% Oscillating Frequency value ±20%
5-2	Storage in high temperature	Storage in +70℃ test box 96 hours then exposed to the room temperature for 2 hours	
5-3	Storage in low temperature	Storage in -20℃ 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
P.S	Power Supply
D.V.M	DC Voltage Meter
D.A.M	DC Ampere Meter

7. Packing Information

Packing: 250 pcs per export carton
Carton Size: 47× 30.5× 35 cm
G. Weight: 9.6 kgs N. Weight: 7.0 kgs