



# **Product Specification**

## **Ningbo East Electronics Limited**

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Product Name:	Pi ezo Buzzer
Part Number:	EFM 260R
Ver si on:	1. 04
Dat e:	2019- 11- 5
Not e:	

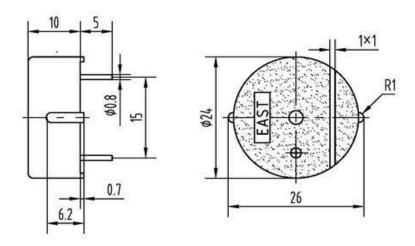
# East is an ISO 9001, IATF16949 and ISO 14001Certified Company

### **Revision History**

Rev.	Description	Author/Date	Checked By	Approver
1.04	Quality management system revised	汤礼东 2019-11-5	吕文斌	王建成
1.03	Update the packing information.	俞凯 2016-12-29	汤礼东	王建成
1.02	Update the packing information.	俞凯 2015-12-11	汤礼东	王建成

#### 1. Part Number EFM-260R

### 2. Dimension Drawing (Unit: mm)



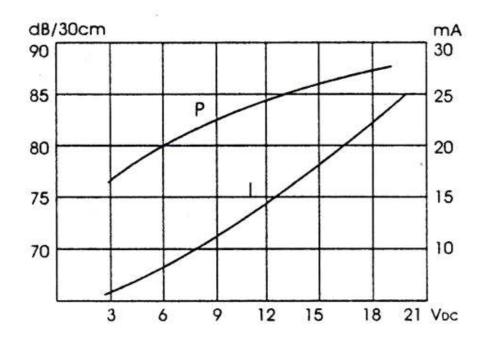
### 3.Specification

No.	Item	Specification
3-1	Min. Sound Pressure Level	85dB/12V <sub>DC</sub> /30cm
3-2	Rate Voltage	12V <sub>DC</sub>
3-3	Operating Voltage	3~24V <sub>DC</sub>
3-4	Max. Consumption	15mA/12V <sub>DC</sub>
3-5	Oscillating Frequency	3.0± 0.5kHz
3-6	Tone Nature	Continuous
3-7	Operating Temperature	-20~+70°C
3-8	Storage Temperature	-20~+70°C
3-9	Case Material /Color	PC/Black
3-10	Weight	4.5g
3-11	Pin Strength	More than 10N

#### NOTES:

Test should be made under the conditions of room temperature  $(20\pm10^{\circ}\text{C})$ , normal humidity  $(60\pm20\%)$  and normal atmospheric pressure. In this case, however, that the judgment is questionable, the test conditions are to be changed to room temperature  $20\pm2^{\circ}\text{C}$ , relative humidity  $60\sim70\%$  and normal atmospheric pressure

## **4.**Typical Frequency Response Curve



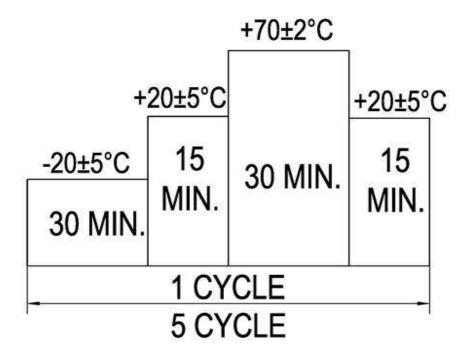
**Note:** Distance 30cm **5. Reliability Test** 

No.	Item	Method of Test	Tolerance after Testing
5-1	Operating Temperature	-20~+70°C	Sound pressure level initial value ±10dB  Max. consumption value ±20%  Oscillating Frequency Value±20%
5-2	Storage in high temperature	Storage in +70°C test box 96 hours then exposed to the room temperature for 2 hours	
5-3	Storage in low temperature	Storage in -20°C 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°C, 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	

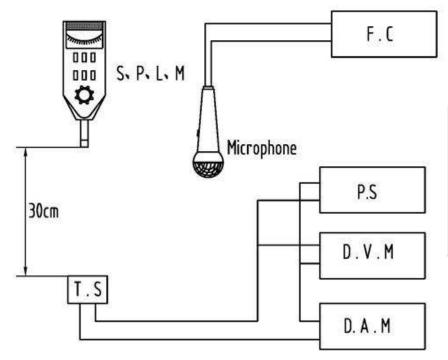
Test of soldering  Dip the connecting pins in soldering at 230±5°C for 3±0.5 seconds  Solder shall be attached around over 95% of the dipped portion	5-9	Soldering heat resistance test	Dip the connecting pins in soldering at 260±5°C for 10±1 seconds	
	5-10	Test of soldering		attached around over 95% of the dipped

**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: 2400 pcs per export carton

Carton Size:  $47 \times 30.5 \times 31$ cm

G. Weight: 13.0 kgs N. Weight: 10.8kgs