



# **Product Specification**

### **Ningbo East Electronics Limited**

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| Product Name: | Piezo Buzzer |
|---------------|--------------|
| Part Number:  | EFM-260BL    |
| Version:      | 1.01         |
| Date:         | 2015-2-6     |
| Note:         |              |

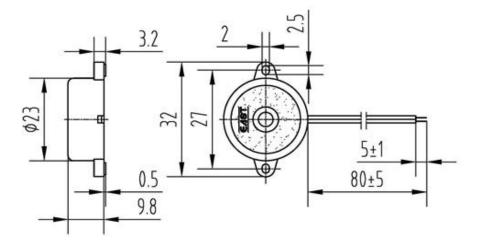
# Company passed ISO 9001 / ISO TS16949 / ISO 14001Certifications

#### **Revision History**

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

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

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



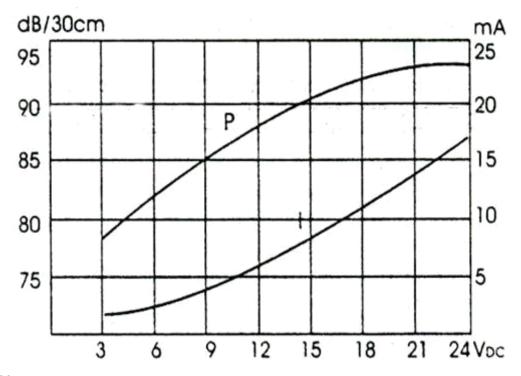
#### 3. Specification

| 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          | 10mA/12V <sub>DC</sub>       |  |
| 3-5                | Oscillating Frequency     | 3.5± 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                    | 4.2g                         |  |
| 3-11 Wire Standard |                           | UL1095-26AWG                 |  |

#### NOTE:

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

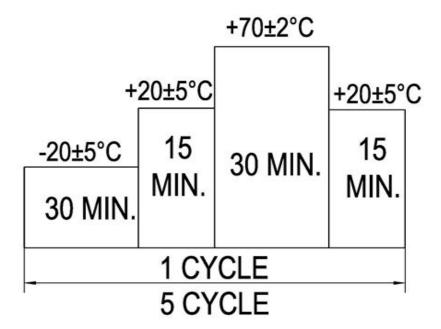


**Note:** Distance 30 cm

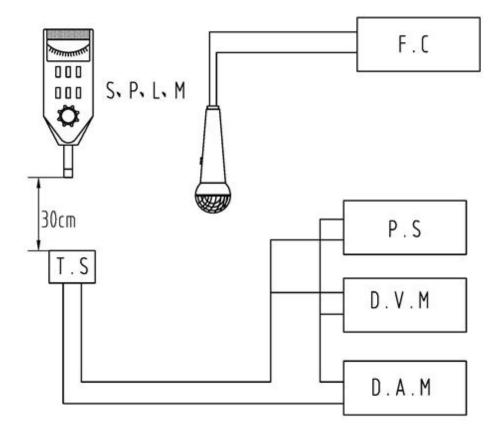
#### 5. Reliability Test

| No. | Item                                  | Method of Test   | Tolerance after<br>Testing  |  |
|-----|---------------------------------------|--|---|--|
| 5-1 | Operating<br>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   |   |  |

Figure 5-6



#### **6. Electrical Testing Method**



| S.P.L.M | Sound Pressure Level<br>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: 3920 pcs per export carton

Carton Size:  $47 \times 30.5 \times 25$  cm

G. Weight: 19.0 kgs N. Weight: 16.5 kgs