



# **Product Specification**

#### **Ningbo East Electronics Limited**

NO. 88 East Jinhui Road, Yinzhou Ningbo 315100, P.R. China <a href="http://www.east-mingtao.com">http://www.east-mingtao.com</a>

Product Name:	SMD Magnetic Buzzer
Part Number:	SFM-1224S-03
Version:	1.02
Date:	2019-11-5
Note:	

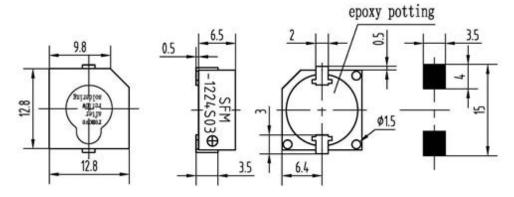
## East is an ISO 9001, IATF16949 and ISO 14001Certified Company

#### **Revision History**

Rev.	Description	Author/Date	Checked By	Approver
1.02	Quality management system revised	汤礼东 2019-11-5	吕文斌	王建成
1.01	Quality Certificate Symbol revised	刘宁 2015-2-4	汤礼东	王建成
1.0	Released	汤礼东 2012-3-30	陈启旺	王建成

#### 1. Part Number SFM-1224S-03

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



SFM-TERMINAL VERSION

RECOMMENDED SMD FOOT PATTERN

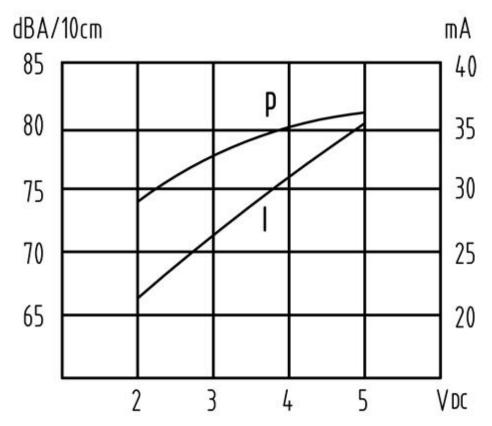
Solder paste thickness is not below 0.2mm The seal will be removed after reflow soldering

#### 3.Specification

No.	Item	Specification
3-1	Min. Sound Pressure Level	75dB/3V <sub>DC</sub> /10cm
3-2	Rate Voltage	3V <sub>DC</sub>
3-3	Operating Voltage	2~5V <sub>DC</sub>
3-4	Max. Consumption	30mA/3V <sub>DC</sub>
3-5	Oscillating Frequency	2.4± 0.4kHz
3-6	Tone Nature	Continuous
3-7	Operating Temperature	-20~+85°C
3-8	Storage Temperature	-20~+85°C
3-9	Case Material /Color	PPS/Grey
3-10	Weight	2.0g
3-11	Pin Strength	More Then 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



**Note:** Distance 10 cm

# 5. Reliability Test

No.	Item	Method of Test	Tolerance after Testing	
5-1	Operating Temperature	-20~+85℃	Sound pressure level initial value ±10dB  Max. consumption value ±20%  Oscillating Frequency Value±20%	
5-2	Storage in high temperature	Storage in +85°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		
Ningbo I	East Electronics Limited	Drop a product naturally from the height of 700mm onto the	3/6	

5-8	Drop test	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	Reflow soldering heat resistance	a) Pre-heating conditions shall be +140°C to 160°C for 160 to 200 seconds. (See Figure 5-9) b) Heating conditions shall be within 60 seconds at +200°C min., but peak temperature shall be lower than +260°C. (See Figure 5-9)	
5-10	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

**NOTE**: The pins are allowed to deform after drop test.

Figure 5-6

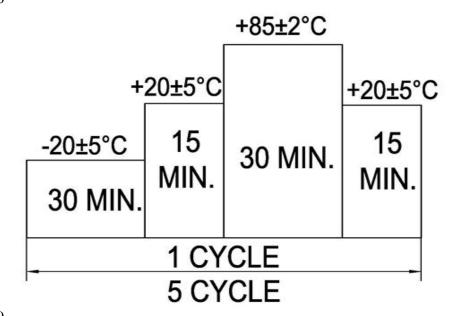
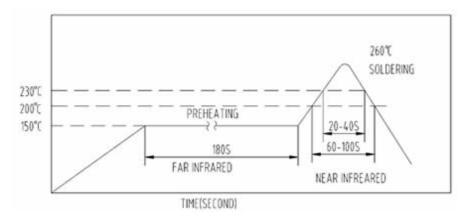
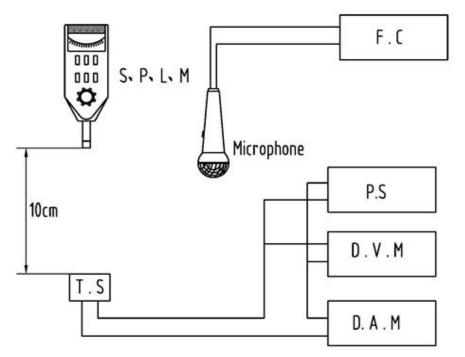


Figure 5-9



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



S.P.L.M	Sound Pressure Level Meter
T.S	Testing Sample
F.C	Frequency Counter
F.S.G	Frequency Signal Generator
D.V.M	DC Voltage Meter
D.A.M	DC Ampere Meter

# 7. Packing Information

No.	Item	Description
7-1	Tape type information	<ul> <li>a) The design for such tape packing was executed under standard IEC - 286-3</li> <li>b) The material of the tape is polystyrene in black color. Detailed dimensions are as below: (See Figure7-1)</li> </ul>
7-2	Dimensions of the rolling plate	<ul><li>a) The material of the rolling plate is paper.</li><li>b) The dimensions of the rolling plate are as below(See Figure 7-2)</li></ul>
7-3	Packing dimensions and quantity	<ul> <li>a) The rolling plate is put into a 340X335X35mm inner packing box and is packed with 450pcs of transducer per plate.</li> <li>b) The dimension of the outer carton is 400X 350X 350mm containing 10 inner boxes with a total quantity of 4500 pcs of transducer.</li> <li>c) The total gross weight per carton is 11Kgs, while net weight is 9.0Kgs.</li> </ul>

Figure 7-1

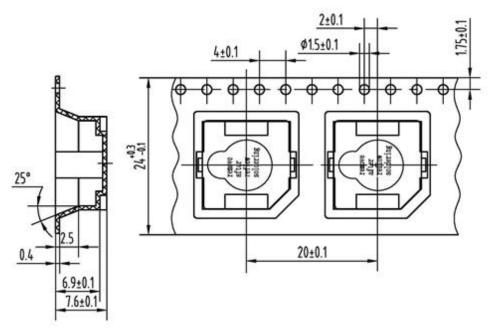


Figure 7-2

