



East Electronics



Product Specification

48273 Lakeview Blvd
 Fremont, CA 94538, U.S.A
 Tel: 510-413-0002
 Fax: 510-413-0010
<http://www.east-elec.com>

Product Name:	High-Output Piezo Alarm Transducer
Part Number :	MF-520
Version:	1.03
Date:	2017-12-7
Note:	

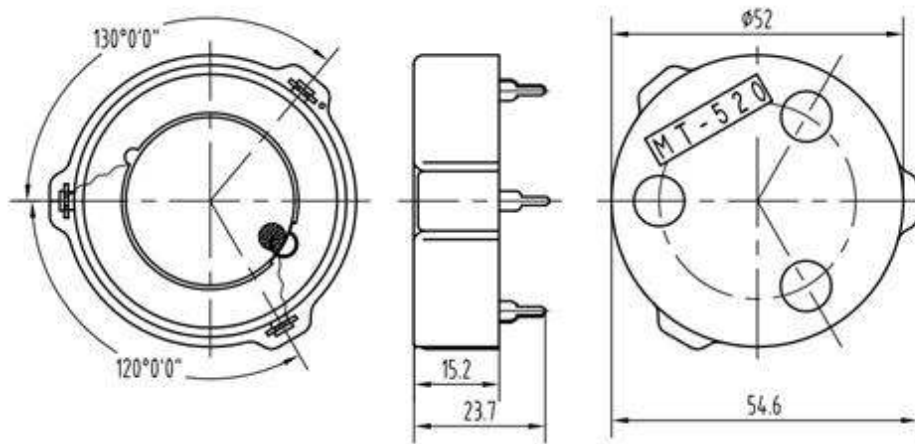
Company passed ISO 9001 / ISO TS16949 / ISO 14001 Certifications

Revision History

Rev.	Description	Author/Date	Checked By	Approver
1.03	24.3mm to 23.7mm	汤礼东 2017-12-7	俞凯	王建成
1.02	Change the company name to East Electronics	SYSTEM 2017-10-10		
1.01	Quality Certificate Symbol revised	汤礼东 2015-6-25	赵鹏森	王建成
1.0	Released	陈启旺 2013-6-24	汤礼东	王建成

1. Part Number MT-520

2. Dimension Drawing (Unit: mm)



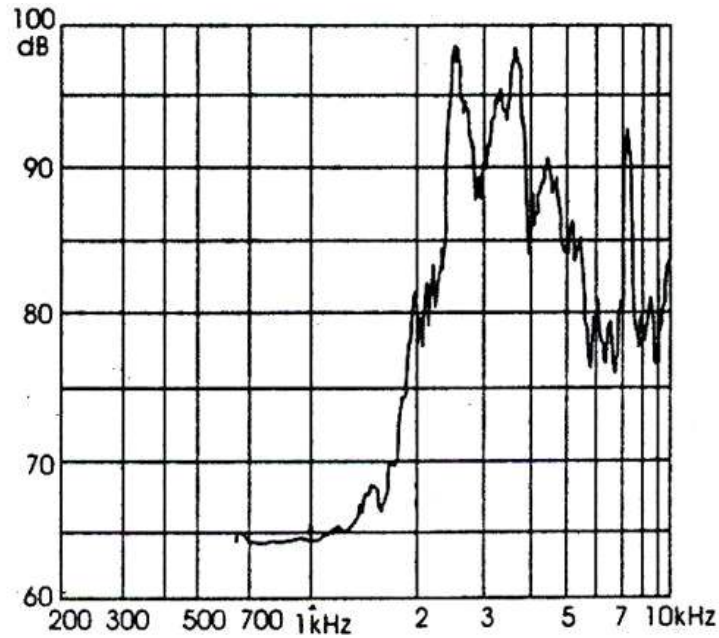
3. Specification

No.	Item	Specification
3-1	Min. Sound Pressure Level	98dB/2~4 kHz /18Vp-p Square Wave /300cm
3-2	Allowable Input Voltage	60Vp-p
3-3	Capacitance	140±30% nF (At 120Hz)
3-4	Resonant Frequency	2~4kHz
3-5	Operating Temperature	-40~+85°C
3-6	Case Material /Color	PA6/Black
3-7	Weight	15.9g
3-8	Pin Strength	More than 10N

NOTES:

Test should be made under the conditions of room temperature ($20\pm 10^{\circ}\text{C}$), normal humidity ($60\pm 20\%$) and normal atmospheric pressure. In this case, however, that the judgment is questionable, the test conditions are to be changed to room temperature $20\pm 2^{\circ}\text{C}$, relative humidity 60~70% and normal atmospheric pressure

4. Typical Frequency Response Curve



Note: Input Voltage 2.83V_{RMS} Sine Wave
Distance 50cm

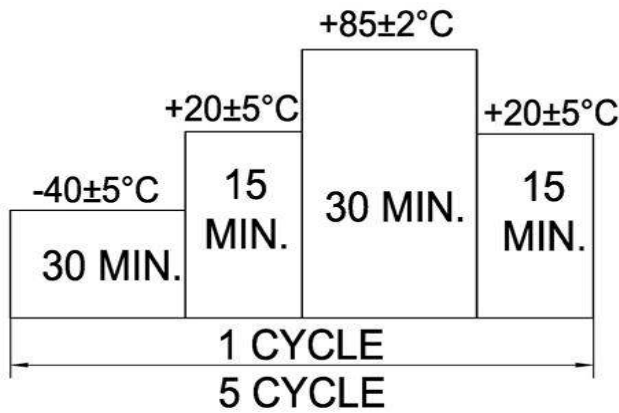
5. Reliability Test

No.	Item	Method of Test	Tolerance after Testing
5-1	Operating Temperature	-40~+85°C	Sound pressure level initial value ±10dB
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 -40°C test box 96 hours then exposed to the room temperature for 2 hours	Capacitance value ±20%
5-4	Life test in the room temperature	Operate the product continuously 5 seconds on 5 seconds off 96 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 10Hz) under single amplitude of 0.75mm is 3 minute. then expose to the room temperature for 2 hours	

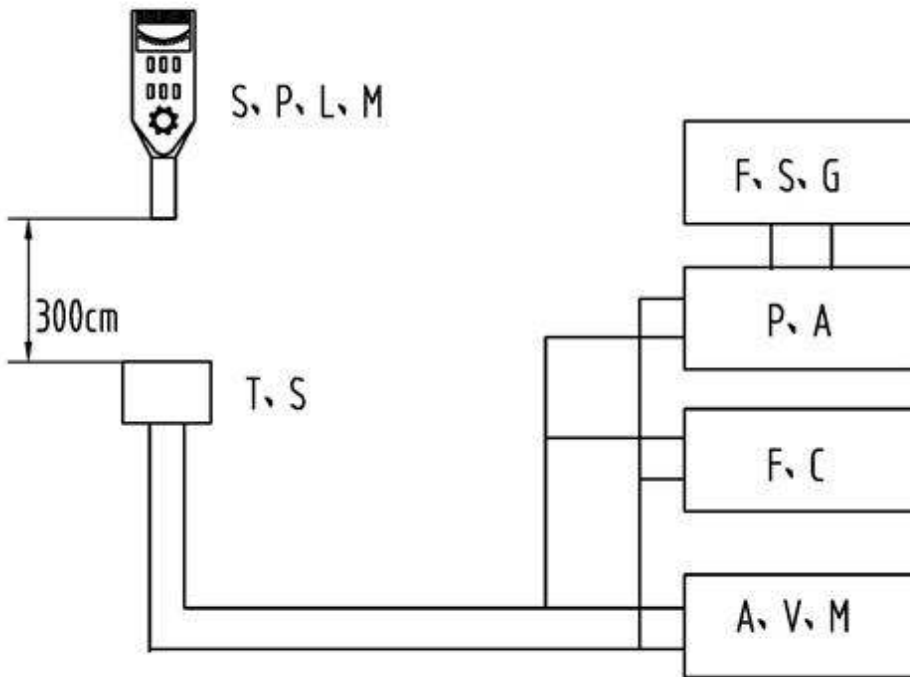
5-8	Drop test	Drop a product naturally from the height of 700mm onto the surface of 100mm thick wooden board. Two directions: upper and side of the product are to be applied for this drop test once respectively	
5-9	Soldering heat resistance test	Dip the connecting pins in soldering at $260\pm 5^{\circ}\text{C}$ for 10 ± 1 seconds	
5-10	Test of soldering	Dip the connecting pins in soldering at $230\pm 5^{\circ}\text{C}$ 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



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
A.V.M	AC Voltage Meter
P.A	Power Amplifier

7. Packing Information

Packing: 480pcs per export carton

Carton Size: 47× 30.5× 33 cm

G. Weight: 10.7kgs N. Weight:7.6 kgs