

# MESSRS. *Ivent Solutions Limited.*

## SPECIFICATION FOR APPROVAL

### 承 認 書

Product	ELECTRO MAGNETIC BUZZER(SMD)
Part No.	APD-1405S-PT
Customer Approval	
Customer Part No.	

Approved By	Checked By	Made By
		



Advanced Acoustic Technology Corporation  
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EDITION:1.1

RoHS



# 1. SPECIFICATION

APD-1405S-PT

ITEM		UNITS	SPECIFICATIONS	CONDITIONS
01	Rated Voltage	V	5	VDC
02	Operating Voltage	V	3 ~ 16	
03	Rated Current	mA (Max)	5	
04	Sound Output (Distance at 10cm)	dB (Min)	73	
05	Resonant Frequency	Hz	4000 ± 500	
06	Operating Temp.	°C	-20~ +70	
07	Storage Temp.	°C	-30~ +80	
08	Weight	g	1.2	

# 2. MEASURING METHOD

## 2-1. Test Condition

### STANDARD

Temperature : 15 ~ 35°C

Relative humidity : 25% ~ 85%,

Atmospheric pressure: 860mbar to 1060mbar.

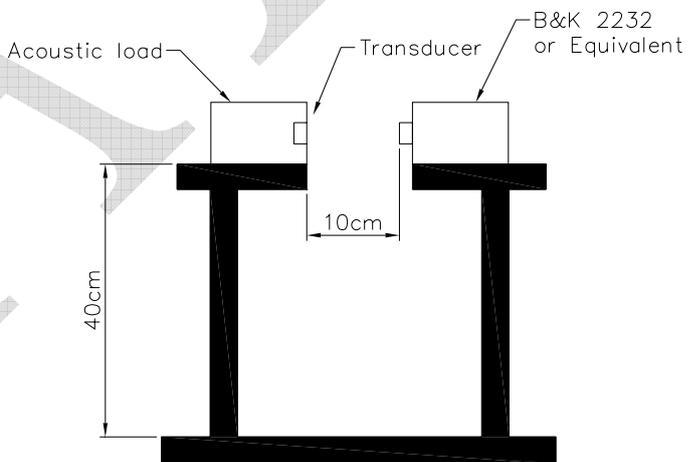
### JUDGEMENT

Temperature : 20±3°C

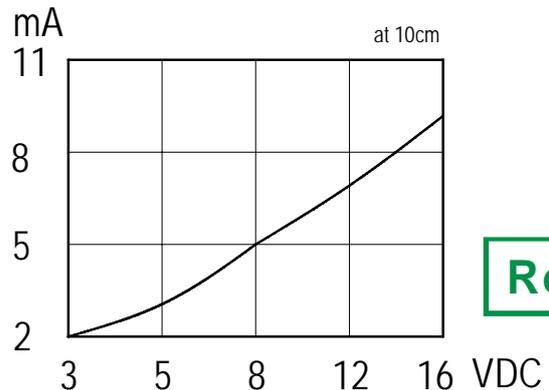
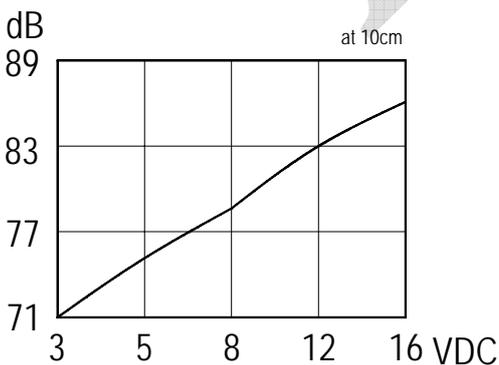
Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

## 2-2. Standard Test Fixture

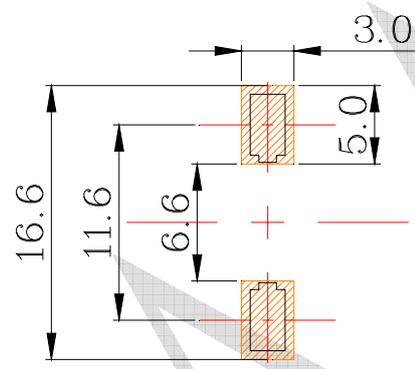
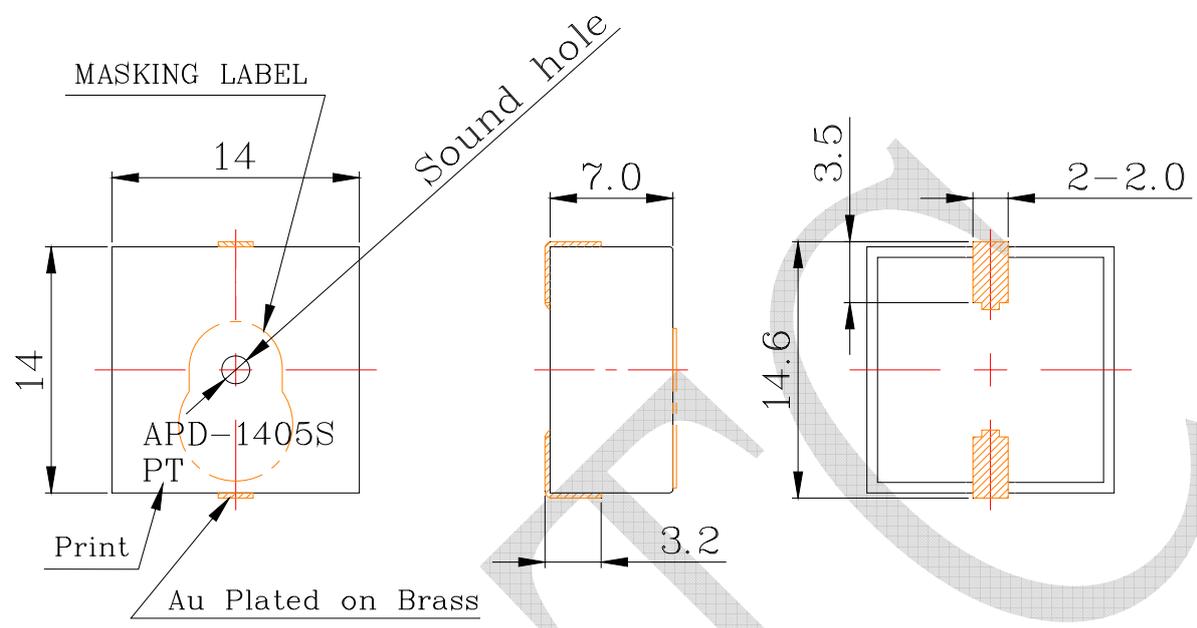


## 2-3. Frequency Response Curve



**RoHS**

REV NO.	REVISION NOTE	APPROVAL	DATE
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PCB LAYOUT

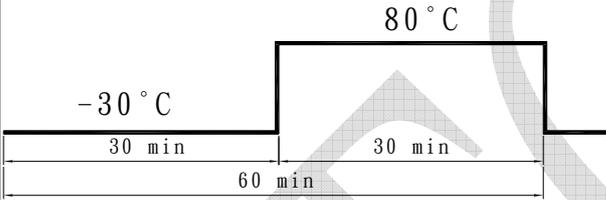
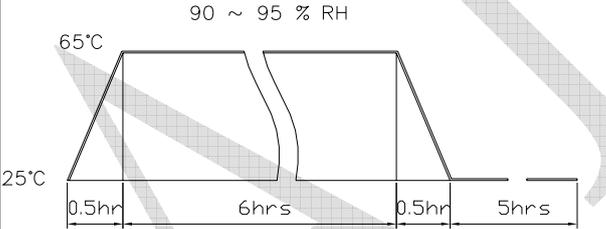
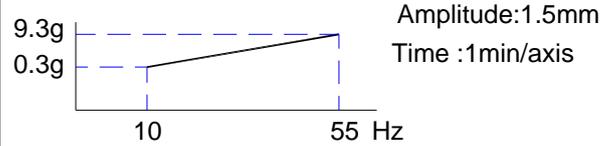
RoHS

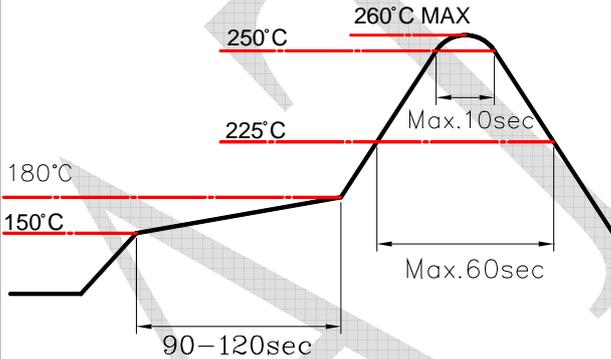
TITLE: SOUND TRANSDUCER (SMD)		DRAWN: <i>Jerry</i> 2013/03/06	SCALE: 2:1	SHEET: 1 of 1
PART NO. APD-1405S-PT	1	DESIGNED: R&D OF AAT	UNITS: mm	
DWG NO. SMD-140070F-05040KJ		CHECKED:	TOLERANCE ± 0.5	
REV		APPROVAL:	UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ***	
		MATERIAL: LCP		



ADVANCED ACOUSTIC TECHNOLOGY CORPORATION

## 4. RELIABILITY TESTS

Item	Test conditions	Evaluation standard
01 High temp. Storage life	The part shall be capable of withstanding a storage Temperature of +80°C for 96 hours.	
02 Low temp. Storage life	The part shall be capable of withstanding a storage Temperature of -30 for 96 hours.	
03 Temp. cycle	<p>The part shall be subjected 10 cycles. One cycle shall of ;</p> 	
04 Temp./Humidity cycle	<p>The part shall be subjected 10 cycles. One cycle shall be 12 hours and consist of;</p> 	
05 Operating life	<p>Rated Voltage, Frequency applied.</p> <ol style="list-style-type: none"> <li>Ordinary temperature The part shall be subjected to 1000 hours at room temperature (25 ±10°C)</li> <li>High temperature The part shall be subjected to 500 hours at 70°C</li> <li>Low temperature The part shall be subjected to 500 hours at -20°C</li> </ol>	<ol style="list-style-type: none"> <li>After the test the part shall meet specifications without Any degradation in appearance and performance except S.P.L</li> <li>S.P.L shall be ±7 dB.</li> </ol>
06 Vibration	 <p>Make this test for the directions of X, Y, Z for 2 hours each (total 6 hours).</p>	

Item	Test conditions	Evaluation standard	
07	Free drop	The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 1 times in 3 Direction each (X.Y.Z). (a total of 3 times).	
08	Free drop (Packing)	The part only shall be dropped from a height of 100cm onto a 10mm thick wooden board 1 times in 3 axes (X.Y.Z). (a total of 3 times).	
09	Solder ability	Hand Soldering : $360 \pm 5^{\circ}\text{C}$ / $\leq 2$ Sec. Recommend using constant searing-iron	
10	Soldering profile	Soldering into solder bath: 	1. After the test the part shall meet specifications without Any degradation in appearance and performance except S.P.L 2. S.P.L shall be $\pm 7$ dB.
11	Wash ability	Solvent : deionizer water Solvent temp. : $55 \pm 5^{\circ}\text{C}$ Soaking time : $5 \pm 0.5$ min.	

Note:

1. After solder bath, the cooling time must be longer than 2 hours before function test.
2. If you need more information, please contact our technology department, thank you.