

MESSRS.

SPECIFICATION FOR APPROVAL

承 認 書

Product	MAGNETIC BUZZER
Part No.	AD-5003-PQ1 (RoHS)
Customer Approval	

Approved By	Checked By	Made By



ADVANCED ACOUSTIC TECHNOLOGY CORP.

苙 翔 科 技 股 份 有 限 公 司



ISO 9001 Certified

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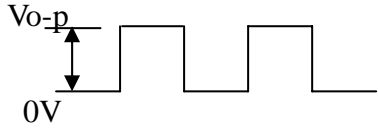
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AD-5003-PQ1 (RoHS)

1.SPECIFICATION

Items		Units	Specifications	Conditions
01	Rated Voltage	Vo-p	3.0	
02	Operating Voltage	Vo-p	2.0 ~ 5.0	
03	Consumption Current	mA (max)	Mean 100	Standard State, Standard Drive Circuit. Rated Voltage, Rated Frequency, Distance at 10 cm free air, Square Wave 1 / 2 Duty
			Peak 300	
04	Sound Output	dB (min)	75	
05	Resonant Frequency	Hz	4000	
06	Coil Resistance	Ω	12 ± 2	
07	Operating Temp.	$^{\circ}\text{C}$	-30 ~ +75	
08	Storage Temp.	$^{\circ}\text{C}$	-40 ~ +85	
09	Weight	Gram	0.3	

2.Test Condition

STANDARD

Temperature : 15 ~ 35 $^{\circ}\text{C}$

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

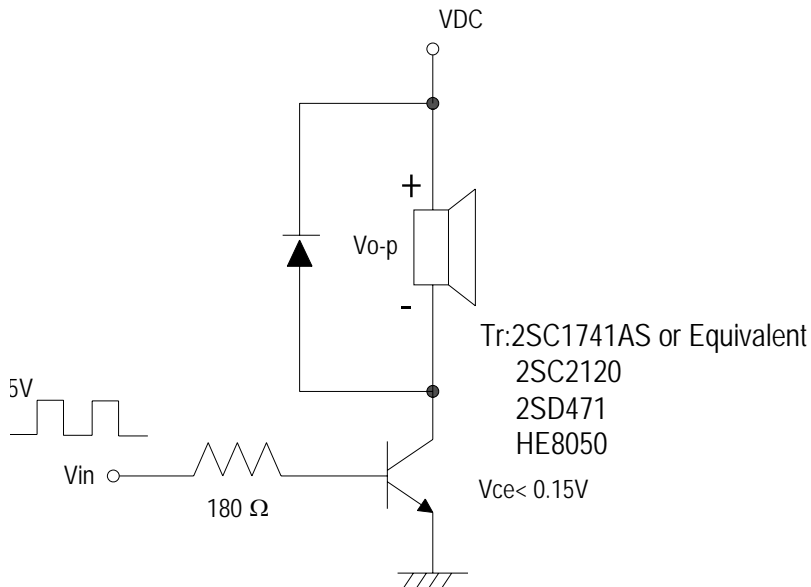
BASIC

Temperature : 20 \pm 3 $^{\circ}\text{C}$

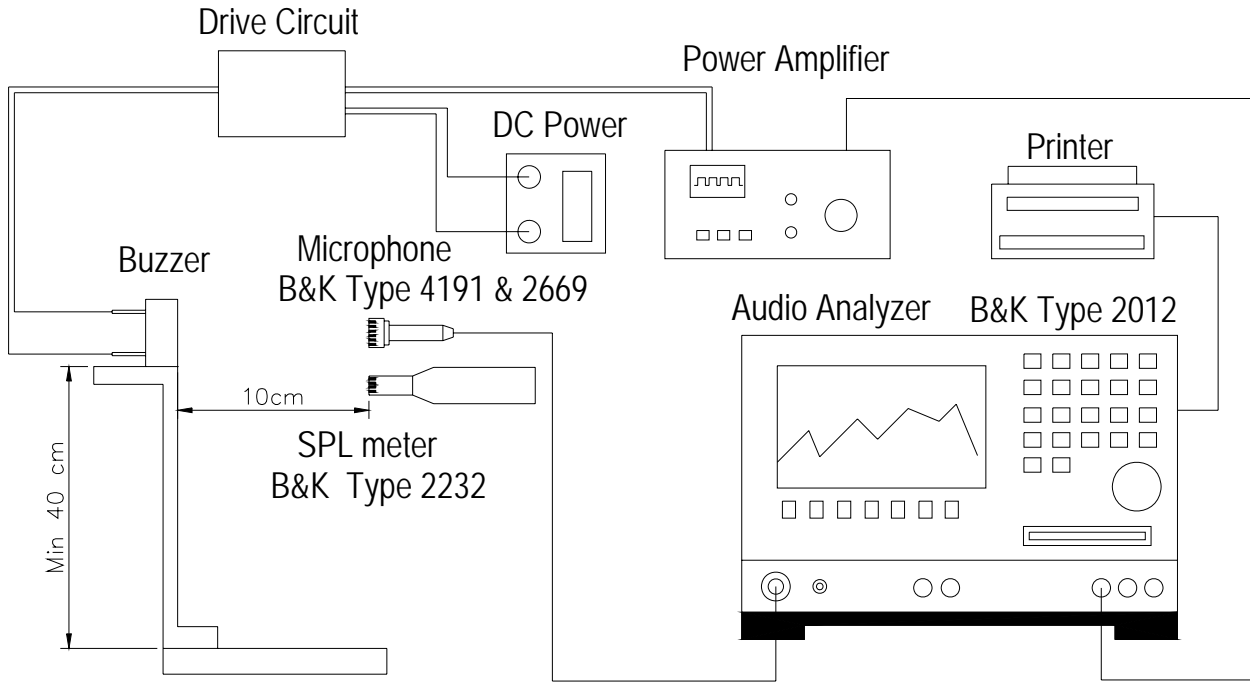
Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

Standard Drive Circuit

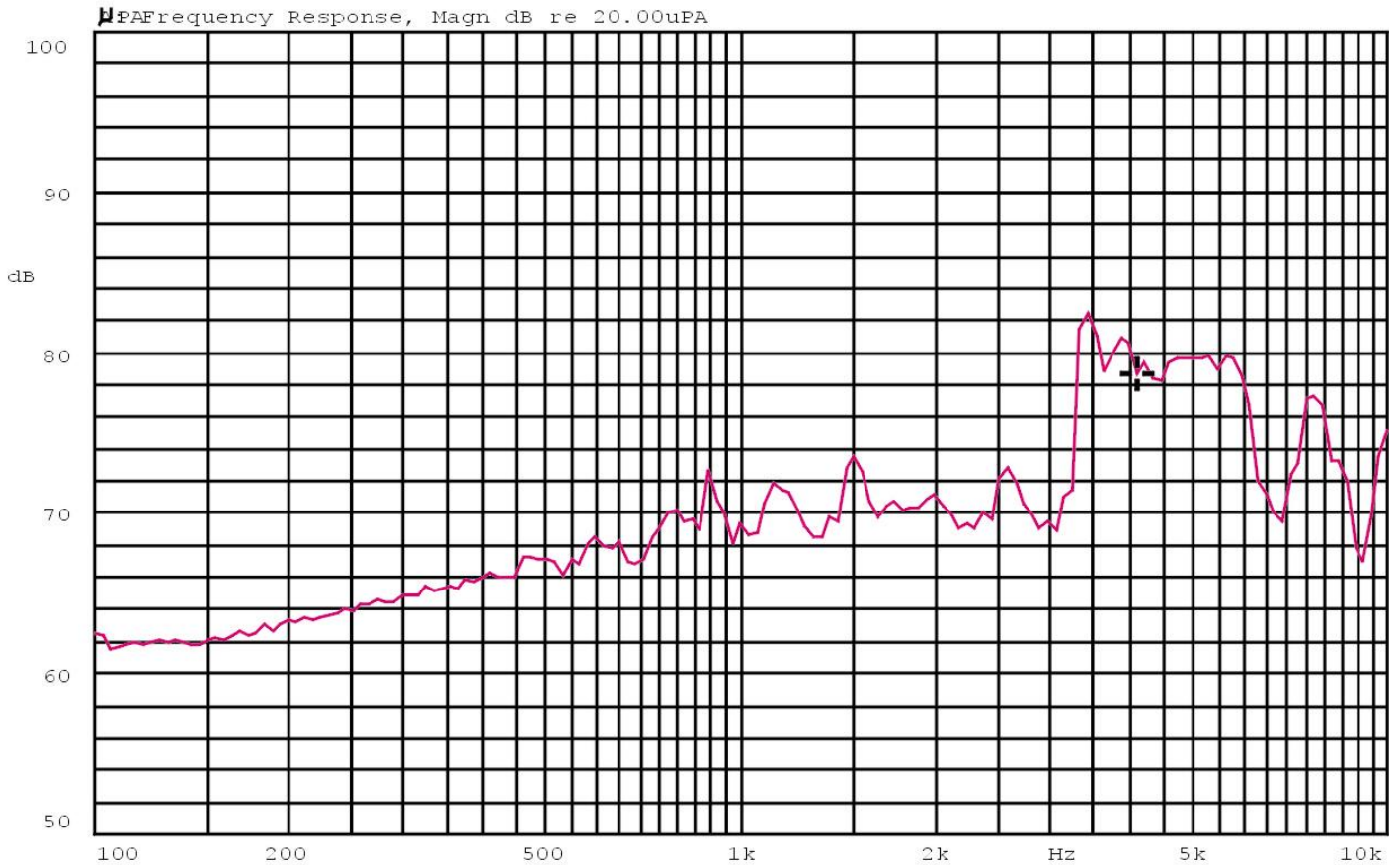


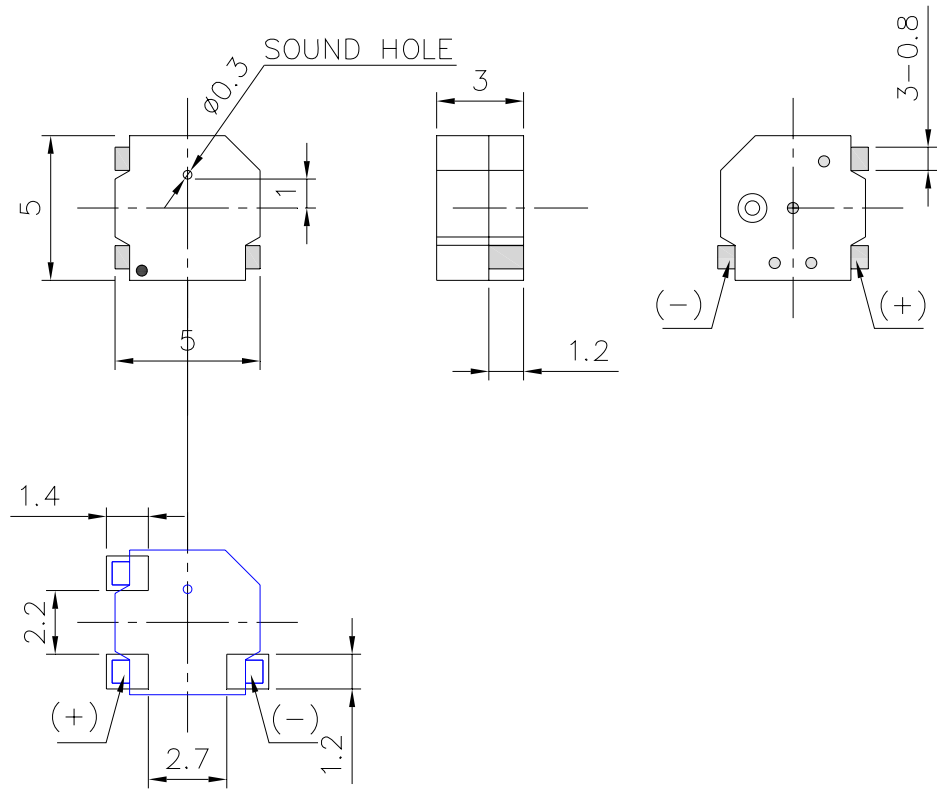
Standard Test Fixture



Frequency Response Curve

X: 4.0973kHz Y: 78.66dB ZA: Live Curve SSR T. RMS



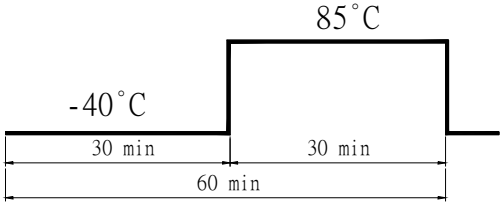
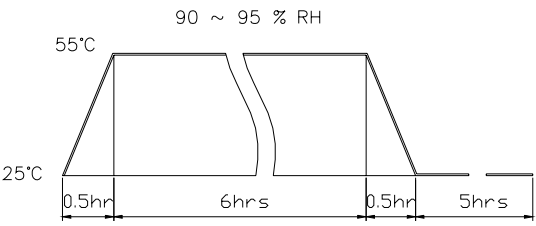


PCB LAYOUT

TITLE: <i>SOUND TRANSDUCER (SMD)</i>	DRAWN: <i>JOHN</i>	2007/08/23	SCALE: 4:1	SHEET: 1 OF 1
PART NO. <i>AD-5003-PQ1</i>	DESIGNED: <i>R&D OF AAT</i>	UNITS: <i>mm</i>		
DWG NO. <i>DTE-1070</i>	CHECKED:	TOLERANCE ± 0.3		
	APPROVAL:	UNLESS OTHERWISE SPECIFIED:		
	MATERIAL: <i>LCP</i>	ONE PLACE DECIMAL \pm ***		
REV	1	TWO PLACE DECIMAL \pm ***		
		THREE PLACE DECIMAL \pm ***		



5.RELIABILITY TEST

Item		Test conditions	Evaluation standard
01	High temp.Storage life	The part shall be capable of withstanding a storage Temperature of 85°C for 96 hours.	After the test the part shall meet specifications without Any degradation in appearance and performance except S.P.L S.P.L shall be 78dB or more.
02	Low temp.Storage life	The part shall be capable of withstanding a storage Temperature of -40°C for 96 hours.	
03	Temp. cycle	<p>The part shall be subjected 10 cycles. One cycle shall consist of;</p>  <p>The diagram shows a temperature cycle with a total duration of 60 minutes. It consists of a 30-minute hold at -40°C, followed by a 30-minute hold at 85°C.</p>	
04	Temp./Humidity cycle	<p>The part shall be subjected 10 cycles. One cycle shall be 12 hours and consist of</p>  <p>The diagram shows a 12-hour cycle. It starts with a 0.5-hour ramp from 25°C to 55°C. This is followed by a 6-hour hold at 55°C with 90 ~ 95 % RH. The cycle then has a 0.5-hour ramp down to 25°C, followed by a 5-hour hold at 25°C.</p>	
05	Operating life	<p>Rated Voltage,Frequency applied.</p> <ol style="list-style-type: none"> Ordinary temperature The part shall be subjected to 1000 hours at room temperature ($25 \pm 10^\circ\text{C}$) High temperature The part shall be subjected to 500 hours at 75°C Low temperature The part shall be subjected to 500 hours at -30°C 	
06	Vibration	The part shall be subjected to a vibration cycle of 10Hz to 55Hz to 10Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm (9.3G). The vibration test shall consist of 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours.	
07	Fixed drop	The part shall be mounted on standard pc board and dropped from a height of 152cm onto a concrete floor 5 times in each 6 planes.(a total of 30 times)	

Item		Test conditions	Evaluation standard
08	Free drop	The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X.Y.Z). (a total of 9 times).	
10	Lead strength	Pull lead with a force of 10N, on the direction of the lead axis for 10 :10±1 sec	
11	Washability	Solvent : deionized water Solvent temp. : 55±5°C Soaking time : 5±0.5 min.	

SOLDER ABILITY

Temperature profile for reflowable Buzzer .

