
SPECIFICATION FOR APPROVAL

Product	SMD PIEZO BUZZER
Part No.	APD-1109
Customer Approval	

Approved By	Checked By	Made By



A & B Components

<http://www.speaker-tw.com>

1. Specifications

APD-1109

Items		Units	Specifications	Conditions
01	Rated Voltage	Vp-p	5	(square wave)
02	Operating Voltage	Vp-p	1~25	
03	Rated Current	mA(Max)	5	
04	Sound Output At 10cm	dBA(Min)	70	At 5Vp-p ,4.1KHz / 10cm
05	Resonant Frequency	Hz	4100	
06	Capacitance	pF	13000±30%	At 1KHz
07	Operating Temp.	°C	-20 ~ +70	
08	Storage Temp.	°C	-40 ~ +85	
09	Weight	g	1.0	

2. Test Condition

STANDARD

Temperature : 15 ~ 35°C

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

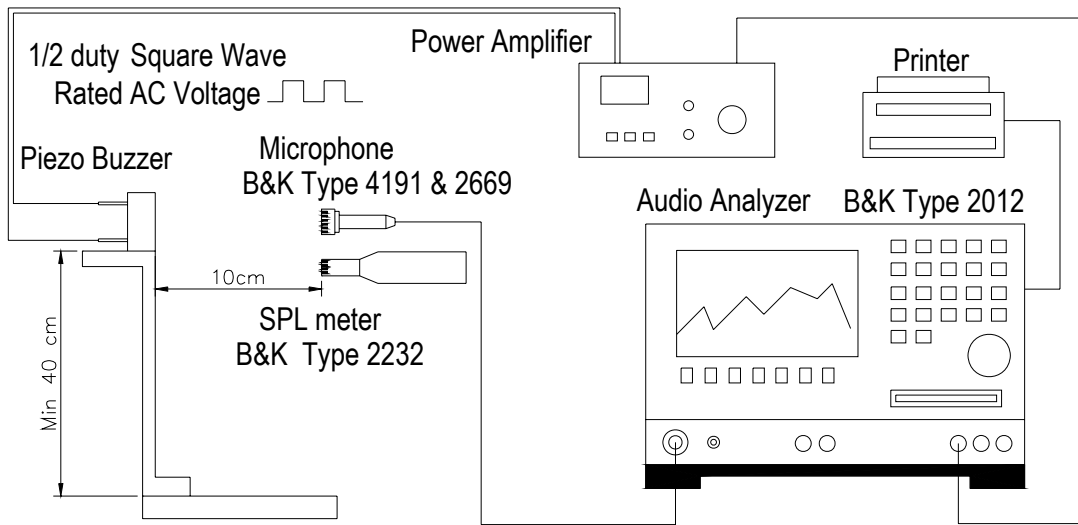
BASIC

Temperature : 20±3°C

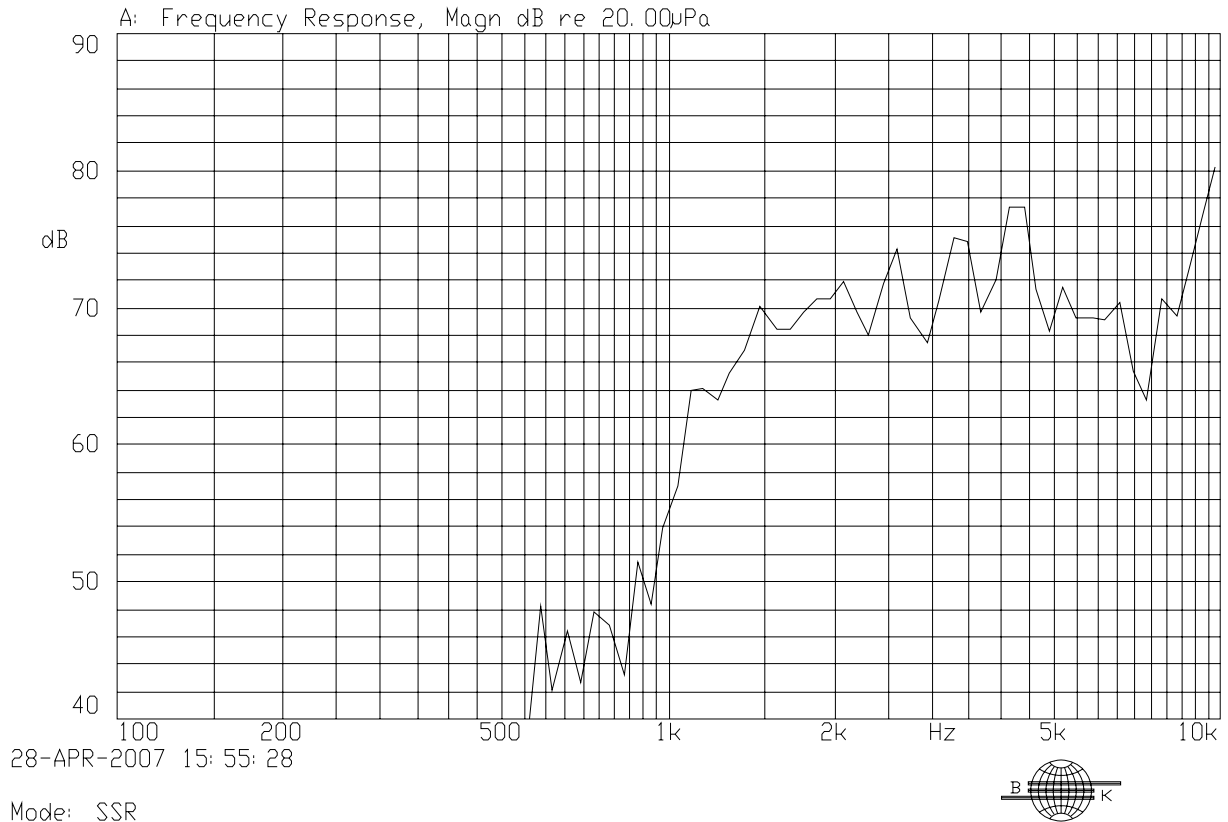
Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

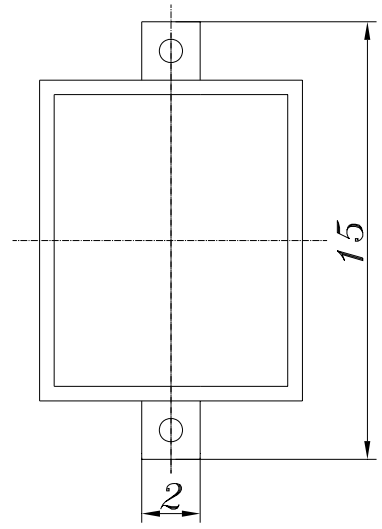
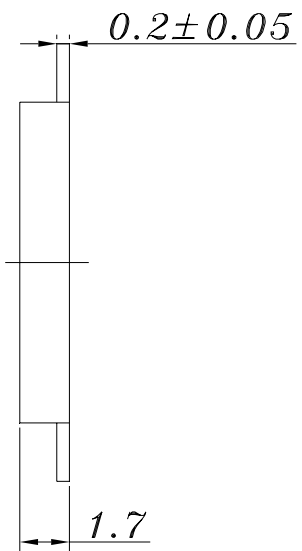
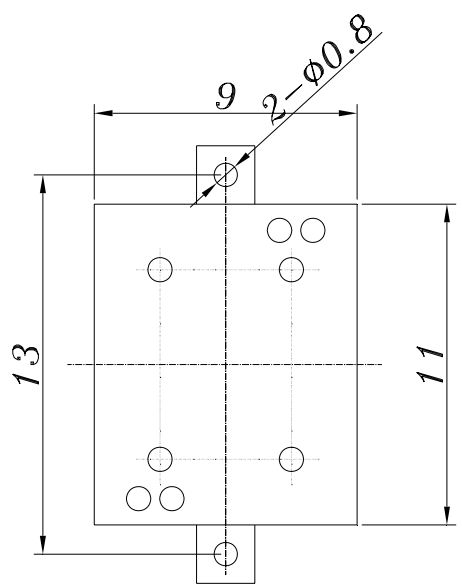
2-2. Standard Test Fixture



2-3. Reflow Temperature Profile



REV NO.	REVISION NOTE	APPROVAL	DATE
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TITLE: <i>PIEZO BUZZER</i>		DRAWN: <i>Richard</i> 2006/10/25	SCALE: ***	SHEET: 1 : 1
PART NO. <i>APD-1109</i>		DESIGNED: <i>R & D DEP.</i>	UNITS: <i>mm</i>	
DWG NO. <i>DPT-1032</i>		CHECKED:	TOLERANCE ± 0.5	
REV <i>1</i>		APPROVAL:	UNLESS OTHERWISE SPECIFIED:	
		MATERIAL:	ONE PLACE DECIMAL ± ***	
			TWO PLACE DECIMAL ± ***	
			THREE PLACE DECIMAL ± ***	

A & B Components

4. Reliability Test

Item	Conditions	Evaluation standard
01 Low Temp. Storage Test	-40°C ±2°C ,240Hr	After the test the part shall meet specifications without Any degradation and performance except S.P.L S.P.L shall be 62dB or more.
02 High Temp. Storage Test	85°C ±2°C ,240Hr	
03 Temp./Humidity Storage Test	40°C ±2°C , RH90-95% 240Hr	
04 Thermal Shock Test	-40°C ±2°C (0.5Hr)→ ,20°C ±2°C (0.25Hr) 85°C ±2°C (0.5Hr)→ ,20°C ±2°C (0.5Hr) 5 cycles	
05 Vibration Test	10-55Hz/2 Hr amplitude1.5mm X,Y, Z,3 directions	
06 Mechanical Shock Test	+100G,Half Sine wave, XYZ , 3 impacts per axis ,3 times.	
07 Free Drop Test	The part shall be dropped freely from a height of 75 cm X,Y, Z,3 directions 3times (total 9 times)	
08 Life Burning Test	The part shall be subjected to 500 hrs in the room temp with rated voltage applied	
09 Lead Strength Test	Pull Lead with a force of 10N,on the direction of the lead axis for 10±1 sec.	