# SPECIFICATION FOR APPROVAL

Product	MAGNETIC BUZZER	
Part No.	AV-9004-CX2	
Customer		
Approval		

Approved By	Checked By	Made By



A & B Components

http://www.speaker-tw.com

#### AV-9004-CX2-LF

#### 1.SPECIFICATION DATA

Items		Units	Specifications	Conditions	
01	Rated Voltage	Vo-p	3.6	Vo-p	
02	Operating Voltage	Vo-p	3.0 ~ 4.0	0V	
03	Concumption Current	mA	Mean 100		
03	Consumption Current	(max)	Peak 300	Standard State, Standard Drive Circuit.	
04	Sound Output	dB	85	Rated Voltage, Rated Frequency, Distance	
04		(min)		at 10 cm free air, Square Wave 1 / 2 Duty	
05	Resonant Frequency	Hz	2731		
06	Coil Resistance	Ω	15 ± 3	At Basic State	
07	Operating Temp.	$^{\circ}\!\mathbb{C}$	-30 ~ +75		
08	Storage Temp.	$^{\circ}\!\mathbb{C}$	-40 ~ +85		
09	Weight	Gram	0.5		

# 2.Test Condition STANDARD

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

Relative humidity: 25% ~ 85%,

Atmospheric pressure: 860mbar to 1060mbar.

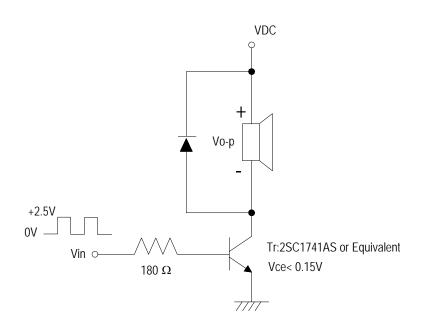
**BASIC** 

Temperature :  $20\pm3^{\circ}$ C

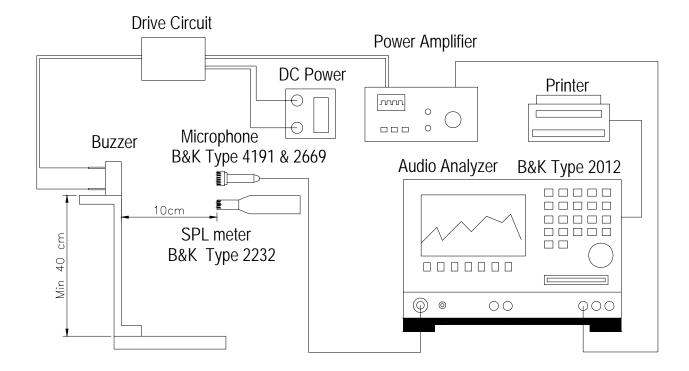
Relative humidity: 60% ~ 70%,

Atmospheric pressure: 860mbar to 1060mbar

#### **Standard Drive Circuit**



#### **Standard Test Fixture**



Frequency Response Curve

SSR T. RMS

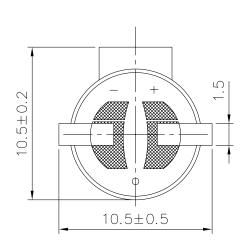
ZA:Live Curve

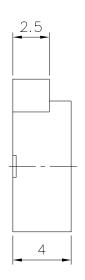
Y:87.49dB

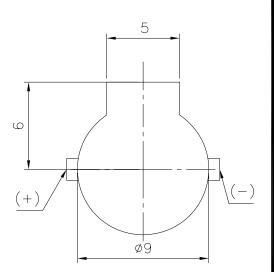
X:2.7384kHz

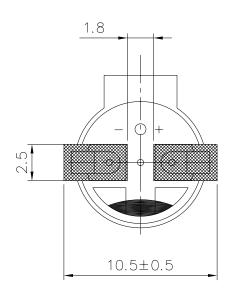
Mode: SSR

10k









PCB LAYOUT

TITLE: SOUND TRANSDUCER (SMD)		DRAWN:	Richard	2003/09/17	SCALE: 4:1	SHEET: 1	OF	1	
, , , , , , , , , , , , , , , , , , ,			DESIGNED.	R&D	DEP.	UNITS:	mm		
PART NO.	AV-9004-CX2-LF	4	CHECKED:			TOLERANCI UNLESS OTH		CIFI	E'D:
DWG NO.		/	APPROVAL:			ONE PLACE	$DECIMAL \pm$	***	<i>.</i>
23 170.	O. DTE-1065		MATERIAL:	LCP	)		<i>DECIMAL ±</i> *** CE DECIMAL ±		k*

A & B Components

## **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.	
02	Low temp.Storage life	The part shall be capable of withstanding a storage Temperature of -40°C for 96 hours.	
03	Temp. cycle	The part shall be subjected 10 cycles. One cycle shall consist of;  85°C  -40°C  30 min  30 min  60 min	After the test the part shall
04	Temp./Humidity cycle	meet specifications without Any degradation in appearance and performance except S.P.L S.P.L shall be 78dB or more.	
05	Operating life	Rated Voltage, Frequency applied.  1. Ordinary temperature  The part shall be subjected to 1000 hours at room tremperature (25 ±10°C)  1. High temperature  The part shall be subjected to 500 hours at 75°C  2. 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	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. : $55\pm5^{\circ}$ C Soaking time : $5\pm0.5$ min.	

### **SOLDER ABILITY**

Temperature profile for reflowable Buzzer .

