
SPECIFICATION FOR APPROVAL

Product	DYNAMIC SPEAKER
Part No.	AS-2852A08-A10W
Customer Approval	

Approved By	Checked By	Made By



A & B Components

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

1. SPECIFICATION

AS-2852A08-A10W

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 28 mm	
03	Rated Input Power	1.0 W	
04	Impedance	8 ohm \pm 15% at 1500Hz	
05	Resonance Frequency (Fo)	650Hz \pm 20% at Fo, 1V	
06	Sensitivity (S.P.L.)	76dB(W/M) \pm 3 dB	at AVE 1.0 – 2.0 KHz.
		95dB (1.0W / 0.1M) \pm 3 dB	
07	Frequency Range	Fo – 20KHz	
08	Distortion	Less than 5 % at 1500Hz, 1.0W	
09	Max. Input Power	Must be normal at 2.0W white noise for 1 minute.	
10	Voice Coil	Diameter 10.4mm	
11	Magnet	Rare earth permanent (Nd-Fe-B) magnet Φ 9.5 x 1.5 mm	
12	Weight	7 g \pm 0.2g	
13	Appearance	Should not exist any obstacle to be harmful to normal operation; damages, cracks, rusts and distortions, etc.	
14	Operation Test	Must be normal at program source – 1.0W	
15	Buzz, Rattle, etc.	Should not be audible at 2.83V sine wave between Fo to 20KHz	
16	Polarity	When positive voltage is applied to the terminal marked (+), diaphragm should move to the front.	
17	Terminal Strength	Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection.	
18	Temperature	Operating temperature: -20°C to +60°C	
		Storage temperature: -30°C to +70°C	

2. MEASURING METHOD

2-1 .Test Condition

STANDARD

Temperature : 15 ~ 35°C

Relative humidity : 45% ~ 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

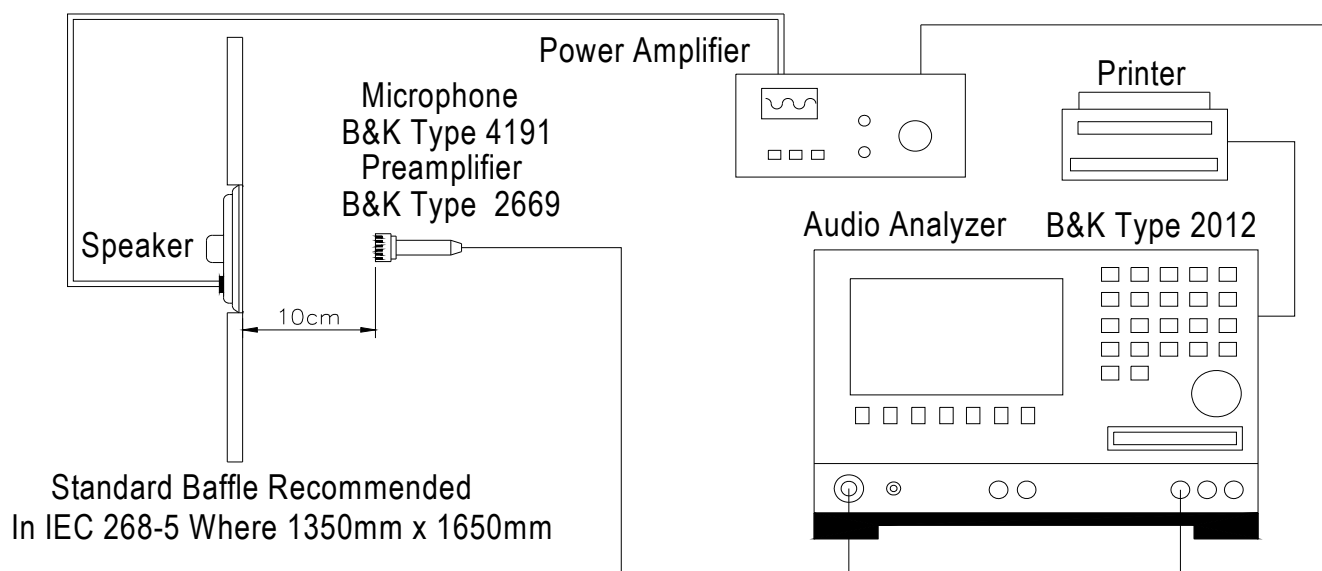
1.Input Power : 1.0W(2.83V)

2.Zero Level : -dB

3.Mode : SPEAKER

4.potentiometer Range : 50dB

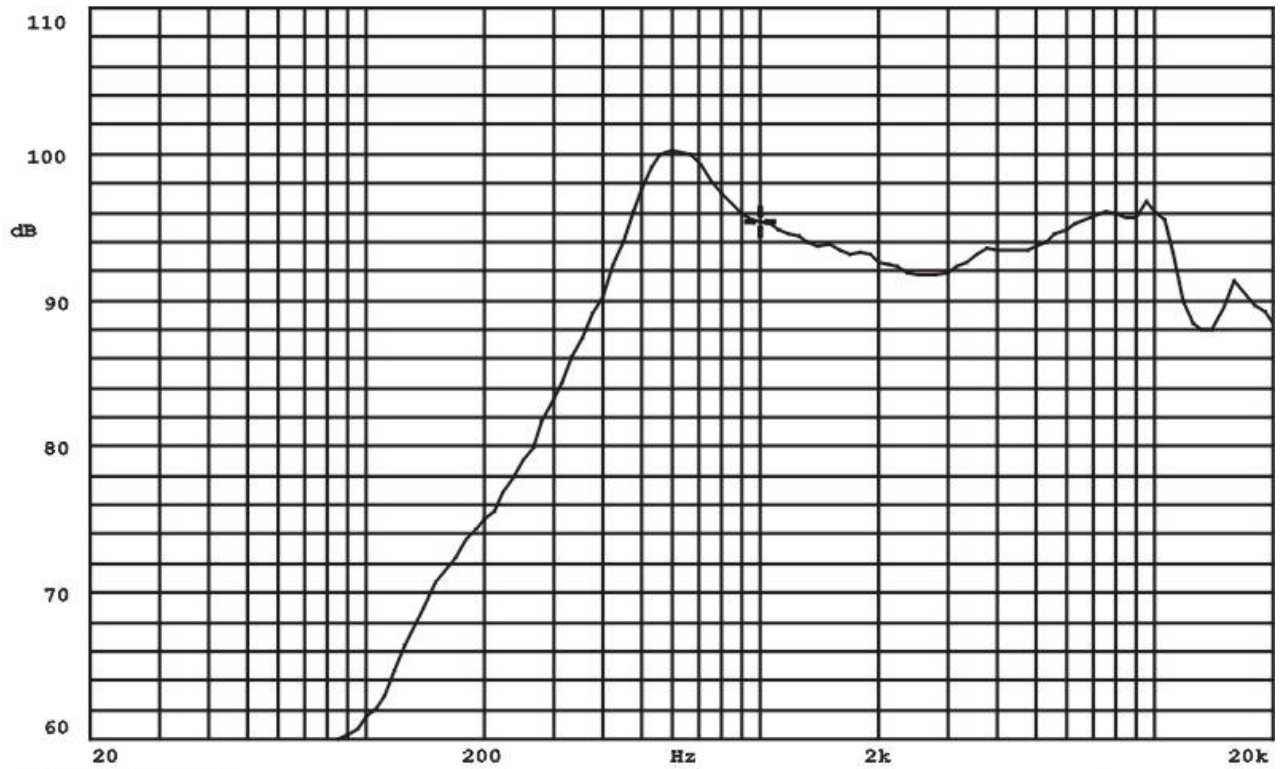
5.Sweep Time : 0.5sec



2-3. Frequency Response Curve

X:1.0000kHz *Y:95.37dB ZA:Live Curve SSR Fund.

A: Frequency Response, Magn dB re 20.00μPa



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Mode: SPEAKER

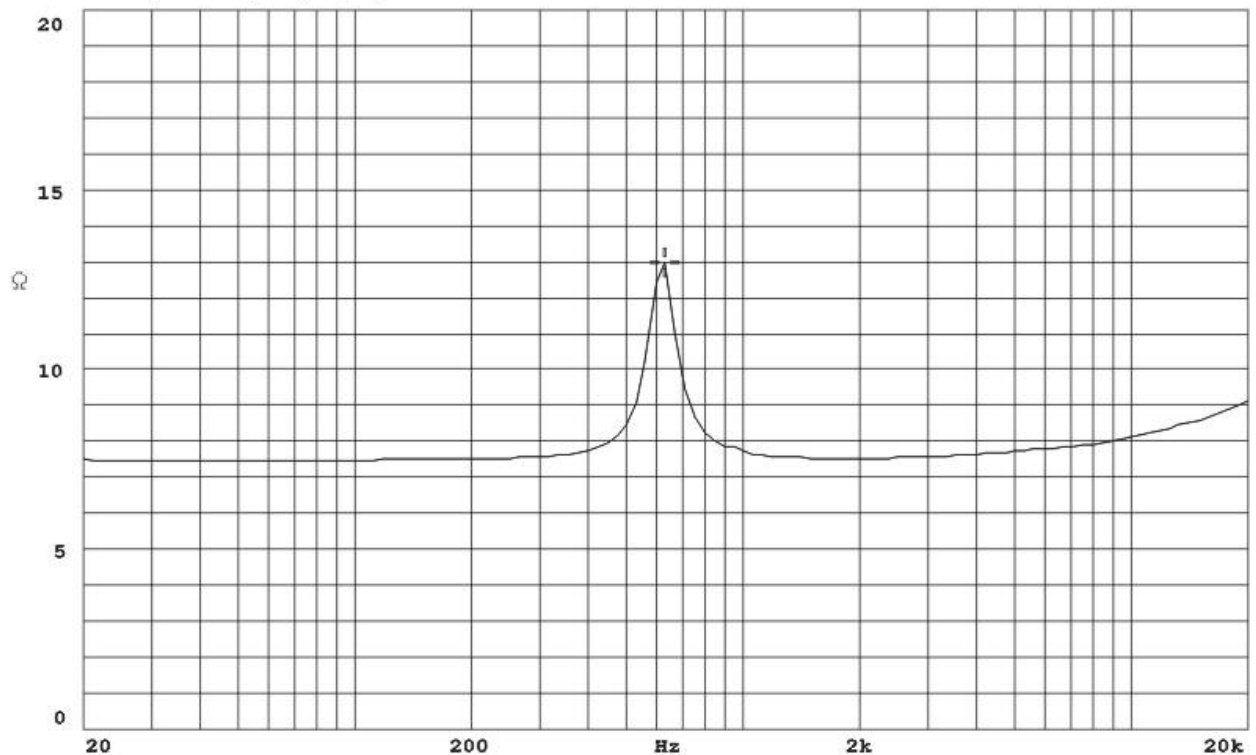


2-4. Impedance Curve

IMPEDANCE MEASUREMENTS: Measurement of Impedance $Z(j\omega)$

X:630.00Hz Y:12.95Ω ZA:Live Curve Impedance

A: Impedance, Magn [Ω]

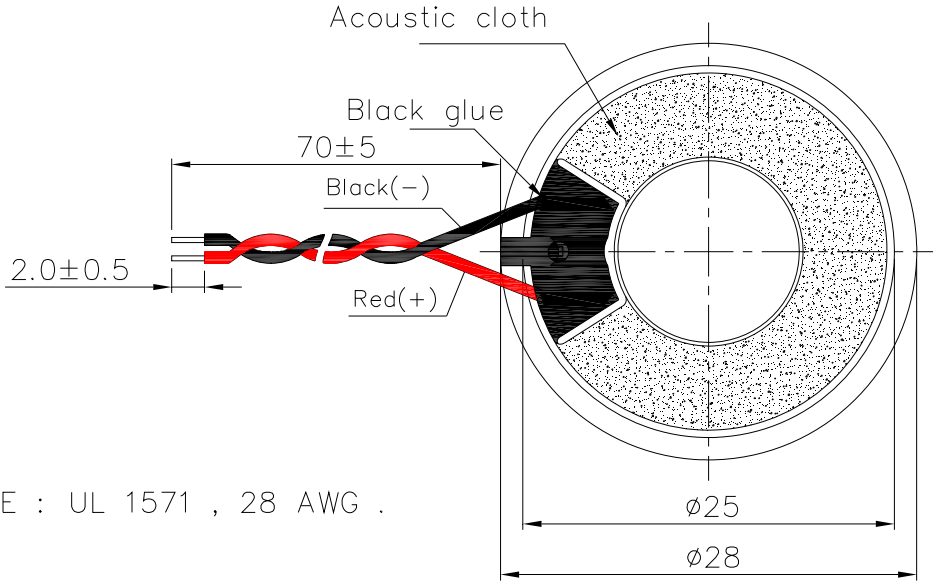


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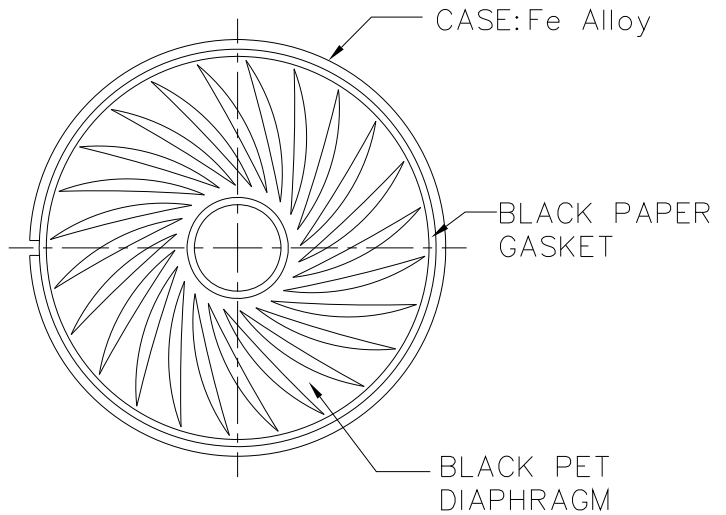
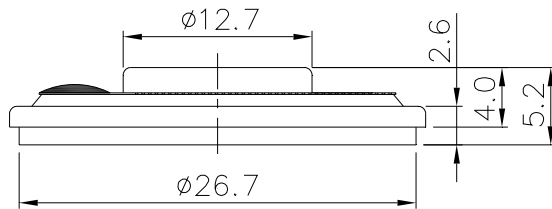
Mode: Z(jw)



REV NO.	REVISION NOTE	APPROVAL	DATE
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WIRE : UL 1571 , 28 AWG .



TITLE:	DYNAMIC SPEAKER	DRAWN:	Richard 2010/03/11	SCALE:	1:1	SHEET:	1 of 1
PART NO.	AS-2852A08-A10W	DESIGNED:	R&D DEP.	UNITS:	mm	TOLERANCE	± 0.3
DWG NO.	CA-K10031102	1	CHECKED:	UNLESS OTHERWISE SPECIFIED:			
		REV	APPROVAL:	ONE PLACE DECIMAL ± ***			
			MATERIAL:	TWO PLACE DECIMAL ± ***			
				THREE PLACE DECIMAL ± ***			

A & B Components

4. RELIABILITY TESTS

Items.		Specifications
01	High temp. Test	Keep 96 hours at $+70^{\circ}\text{C}\pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
02	Low temp. Test	Keep 96 hours at $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
03	Humidity test	Keep 96 hours at $+60^{\circ}\text{C}\pm 3^{\circ}\text{C}$ relative humidity 95% and leave 3 hours in normal temperature and then checked.
04	Temp./Humidity cycle	<p>The part shall be subjected 5 cycles. One cycle shall be 12 hours and consist of;</p> <p style="text-align: center;"> 65°C $90 \sim 95 \% \text{ RH}$ 25°C 0.5hr 6hrs 0.5hr 5hrs </p>
05	Thermal cycle test.	Low temperature: $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}$, temperature: $+70^{\circ}\text{C}\pm 3^{\circ}\text{C}$, cycle: 1 hour/cycle each, and then keep 5 cycles in a room.
06	Vibration	10~200~10Hz sin-wave sweep 15min. 5G(constant) X,Y, Z 3 direction. 2 hours each, total 6 hours.
07	Fix drop test	Fix on jig. Then drop from 152cm height to the concrete floor X,y, z 6 direction. 5 times each, total 30 times.
08	Free drop test	Free drop from 100cm height to the concrete floor X,y, z 6 direction. 1 times each, total 6 times.
09	Load test	Rated Power white noise is applied for 96 hours
10	Max Power test	Max power 1 min on - 2 min off 10 cycles.
11	Terminal strength test	Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection.
<p>Criterion :</p> <p>After testing any of the above reliability test items , the change of S.P.L shall be within $\pm 3 \text{ dB}$</p>		

SOLDERING CONDITION

Recommend using constant searing-iron in temperature range $360\pm 5^{\circ}\text{C}$.

Soldering time 2 seconds.