SPECIFICATION FOR APPROVAL

Product	DYNAMIC SPEAKER
Part No.	AS-2853B08-A18T
Customer Approval	

Approved By	Checked By	Made By

A & B Components

http://www.speaker-tw.com

1.SPECIFICATION

AS-2853B08-A18T

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 28 mm	
03	Rated Input Power	2.0 W	
04	Max. Input Power	2.2 W for 1 minute.	
05	Impedance	8 ohm ± 15% at 2 KHz	
06	Resonance Frequency (Fo)	650 Hz ± 20% at Fo, 1V	
07	Sensitivity (S.P.L.)	76 dB(W/m) ± 3 dB	at AVE 1.0 、1.2、1.5、2.0 KHz.
		96 dB (2.0W/0.1m) ± 3 dB	
08	Frequency Range	Fo – 20K Hz	
09	Total Harmonics Distortion	Less than 10 % at 1 KHz,1.0V	
10	Voice Coil	Diameter 13.5 mm	
11	Magnet	Rare earth permanent (Nd-Fe-B) magnet Φ12.5 x 1.5mm	
12	Weight	7.4g ± 0.5g	
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 2.0W	
15	Buzz, Rattle, etc.	Should not be audible at 4.0 V 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℃ to +60℃ Storage temperature: -30℃ to +70℃	

2.MEASURING METHOD

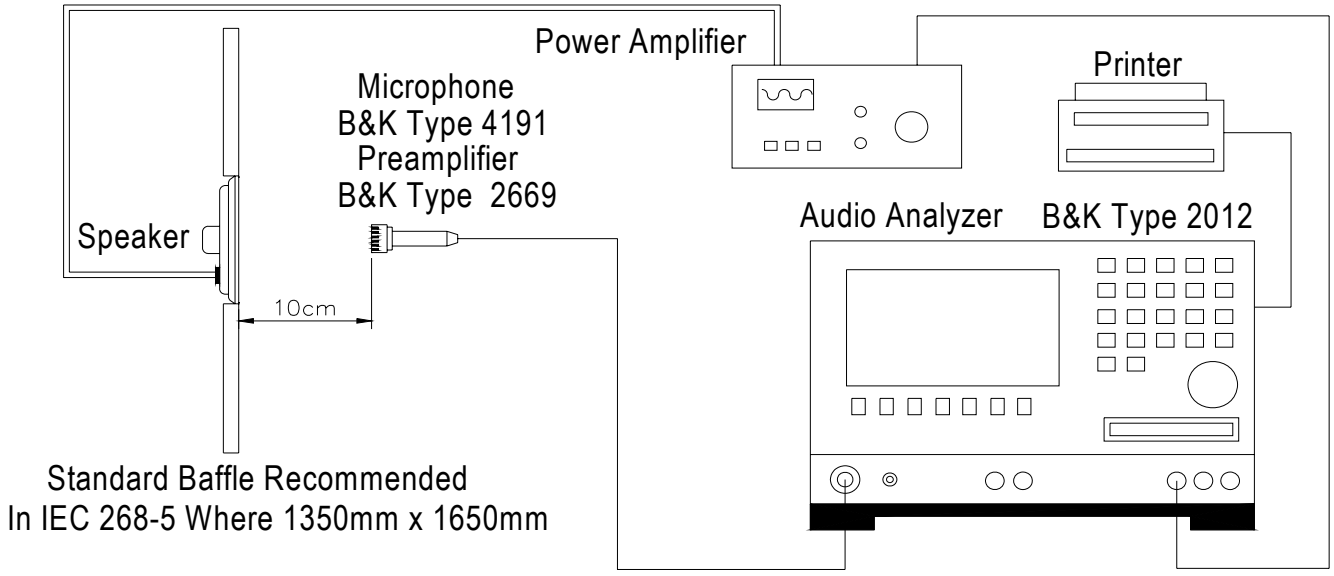
2-1 .Test Condition

STANDARD
Temperature : 15 ~ 35℃
Relative humidity : 45% ~ 85%,
Atmospheric pressure : 860mbar to 1060mbar.

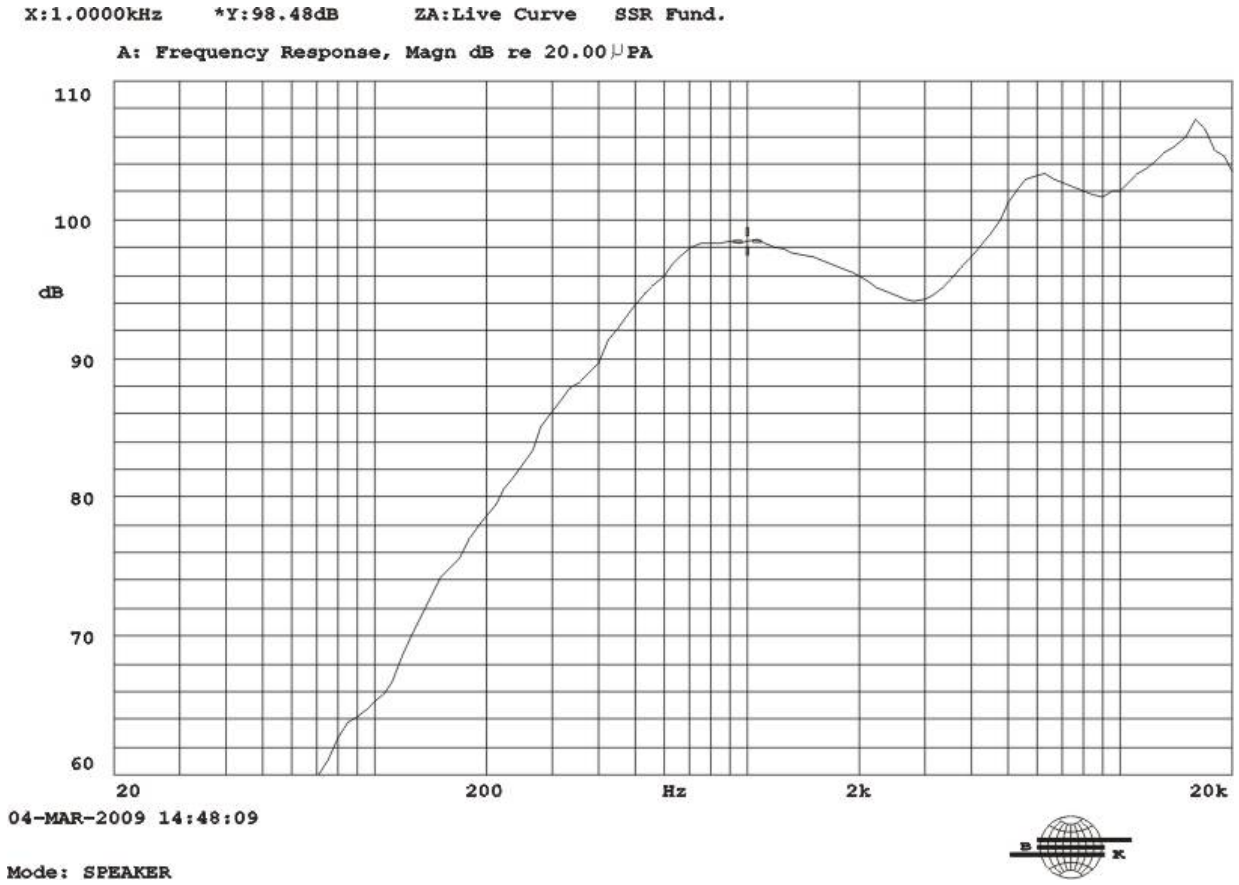
JUDGEMENT
Temperature : 20±3℃
Relative humidity : 60% ~ 70%,
Atmospheric pressure : 860mbar to 1060mbar

2-2 . Standard Test Fixture

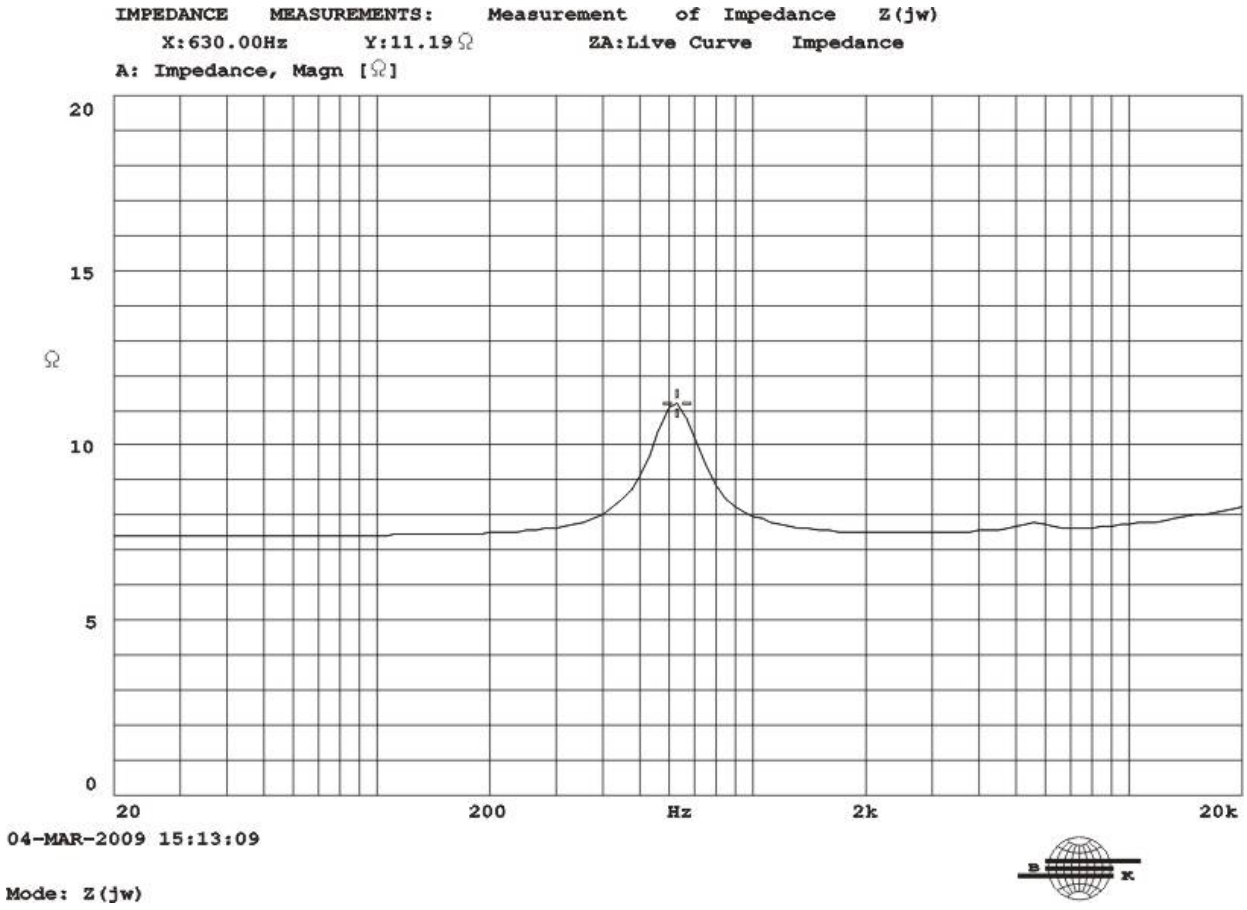
1.Input Power : 2.0W(4.0V)
2.Zero Level : -dB
3.Mode : SPEAKER
4.potentiometer Range : 50dB
5.Sweep Time : 0.5sec



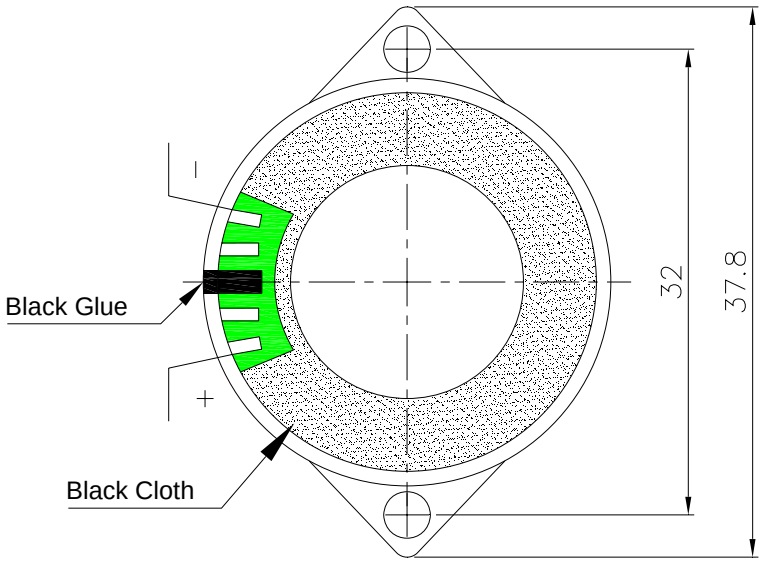
2-3. Frequency Response Curve

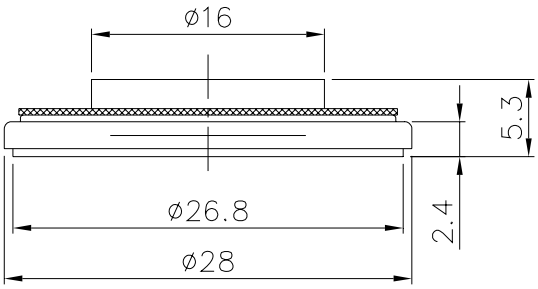


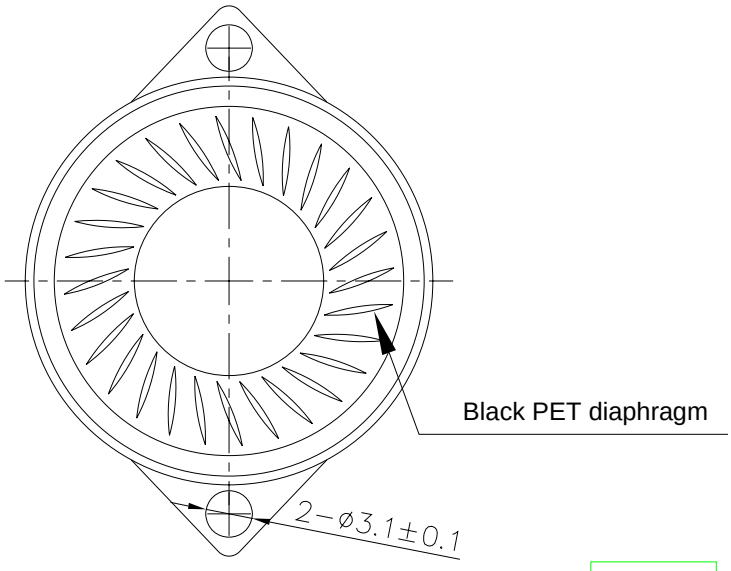
2-4. Impedance Curve



REV NO.	REVISION NOTE	APPROVAL	DATE





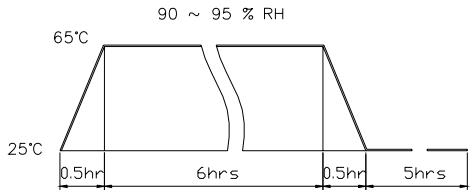


RoHS

TITLE: DYNAMIC SPEAKER		DRAWN: Richard 2009/03/04	SCALE: 2:1	SHEET: 1 of 1
PART NO. AS-2853B08-A18T	1	DESIGNED: R&D DEP.	UNITS: mm	
		CHECKED:	TOLERANCE ± 0.3	
DWG NO. AS-09030401	REV	APPROVAL:	UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ***	
		MATERIAL: *****		

A & B Components

4.RELIABLITY TESTS

Items.		Specifications
01	High temp. Test	Keep 96 hours at +70℃±3℃ and leave 3 hours in normal temperature and then check
02	Low temp. Test	Keep 96 hours at -30℃±3℃ and leave 3 hours in normal temperature and then check
03	Humidity test	Keep 96 hours at + 60℃±3℃ relative humidity 95% and leave 3 hours in normal temperature and then checked.
04	Temp./Humidity cycle	The part shall be subjected 5 cycles. One cycle shall be 12 hours and consist of; 
05	Thermal cycle test.	Low temperature: -30℃±3℃, temperature:+70℃±3℃, 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.
Criterion : After these test , the change of S.P.L shall be within ±3 dB		

SOLDERING CONDITION

Recommend using constant branding iron in 30W, and in temperature range 350±10°C.
Soldering time 2 seconds.