Speaker
SS0108-1780-85PC

Description

This speaker is designed to convert electrical signals into sound waves. It is commonly used in electronic devices such as smartphones, laptops, and portable speakers to produce audio output. The speaker consists of a diaphragm that vibrates in response to the electrical signals, creating sound waves that are amplified by the speaker's enclosure.

Applications

- Electronic devices
- Industrial and commercial equipment
- Home appliances
- Toys and games
- Sound effects
- Audio Alerts
- Warning Signals

Electrical And Acoustical Specification

Parameter	Description
Rated Input Power	1.0 W
Max Input Power	1.2 W
Rated Impedance	8Ω ± 15%
Sound Pressure Level	87 dB ± 3 dB (1W/0.1m) ± 3 dB at AVE 0.8k, 1.0k, 1.2k, 1.5k Hz
Resonance Frequency (Fo)	1500 ±20%Hz
Frequency Range.	F0 ~ 20kHz.
Distortion	Less than 5% at 1KHz input Rated Power
Magnet	Rare earth permanent (NdFeB) magnet ø6.5x1.5mm
Buzz, Rattle, etc.	Should not be audible at 2.83V sine Wave between F0 to 20 KHz
Polarity	When positive voltage is applied to the terminal marked (+), diaphragm should move to the front.
Appearance	Should not exist any obstacle to be harmful to normal operation; damages, cracks, rusts and distortions, etc.

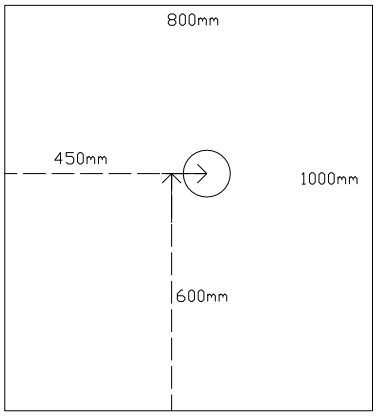
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Temperature	Operating temperature: -20℃ to +55℃ Storage temperature: -30℃ to +70℃

Measuring Conditions

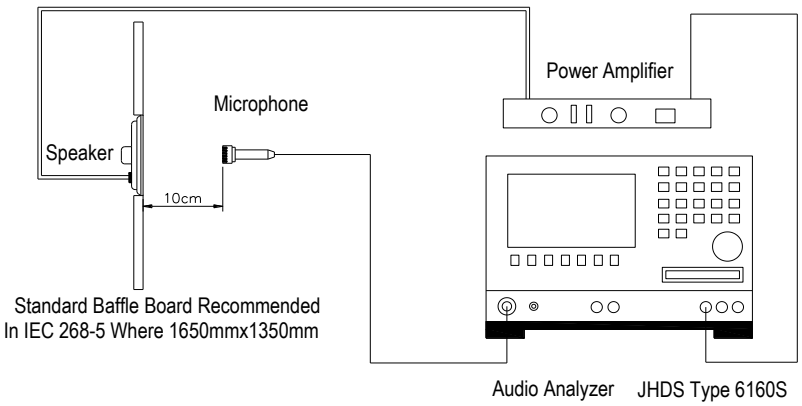
Test and measurement will be carried out under normal condition of temperature within 15℃ to 35℃, relative humidity within 45% to 85% and air pressure of 860 mbar to 1060 mbar. Should uncertainly arise in data obtained from the above atmosphere, control of temperature at 20℃±2℃ and relative humidity within 60%and 70%, with air pressure remaining un-changed, to be enforced

Measuring Method



Block Diagram For Measurement Method.

Standard test condition of speaker

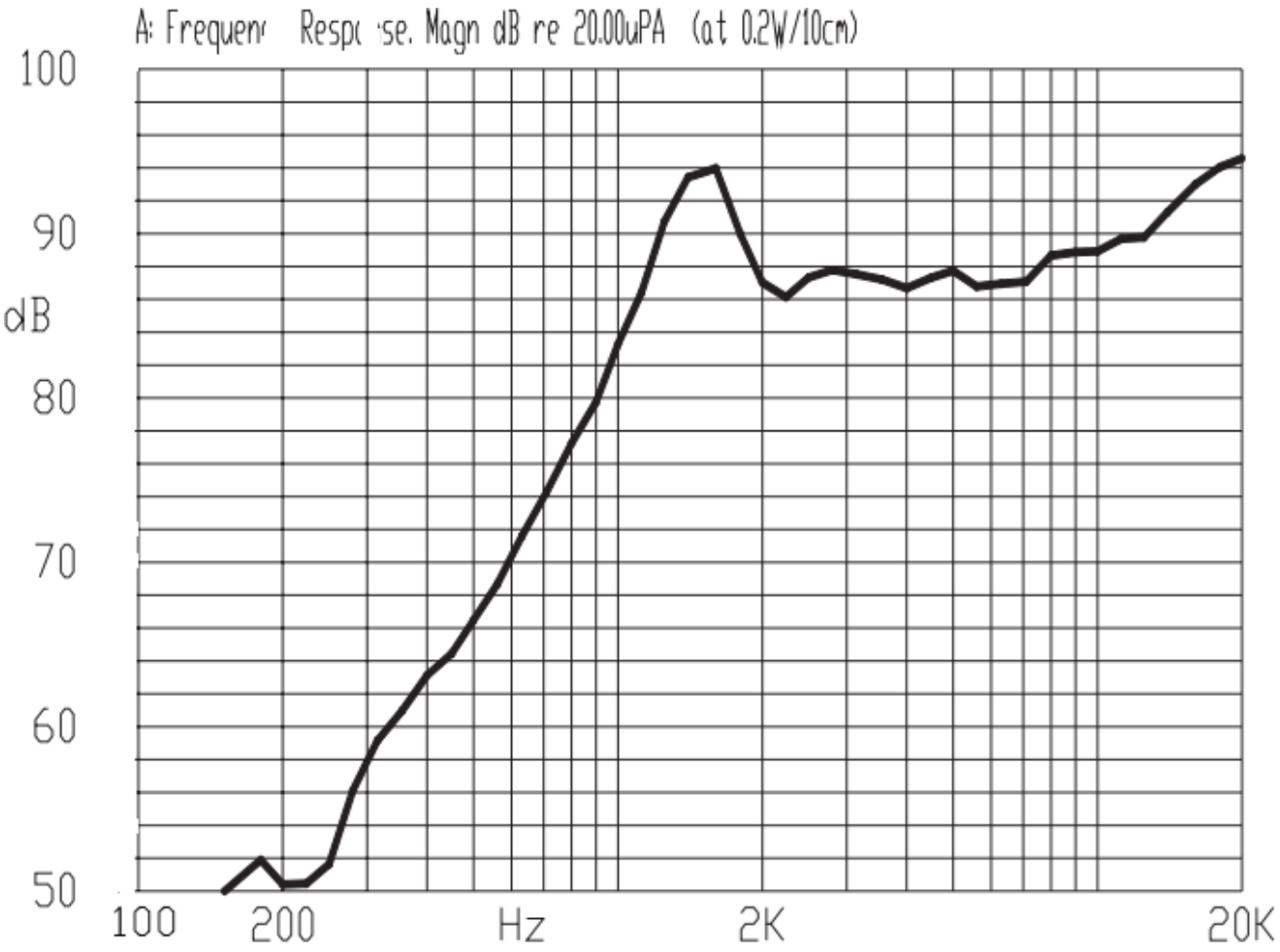


Speaker

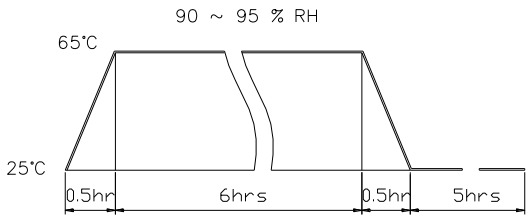
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Frequency Response Curve

Test condition: 0.1W/0.1M,

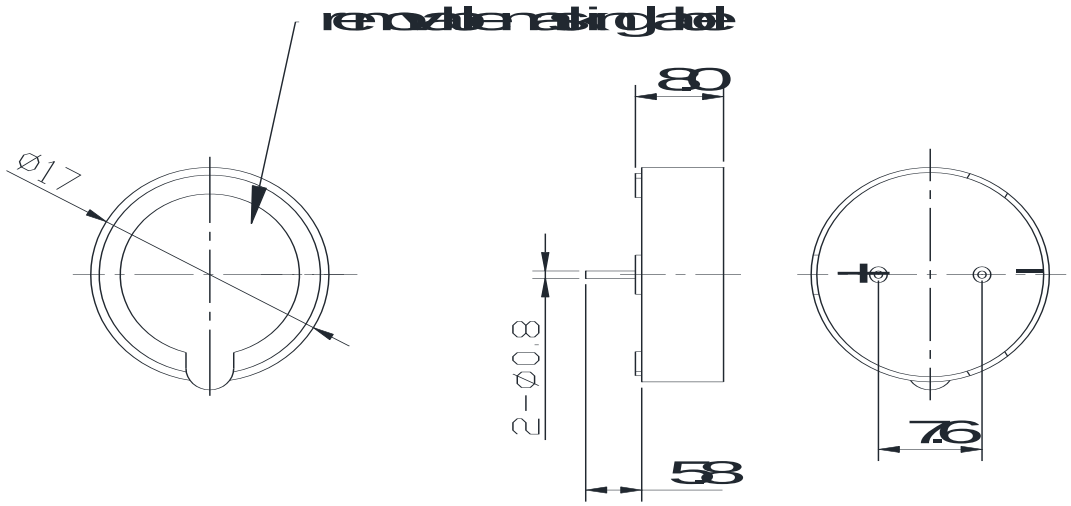


Environment Test

Parameter	Description
High temp. Test	Keep 96 hours at +70°C±3°C and leave 3 hours in normal temperature and then check
Low temp. Test	Keep 96 hours at -30°C±3°C and leave 3 hours in normal temperature and then check
Humidity test	Keep 96 hours at + 40°C±3°C relative humidity 92-95% and leave 3 hours in normal temperature and then checked.
Temp./Humidity cycle	The part shall be subjected 5cycles. One cycle shall be 12 hours and consist of 
Thermal cycle test.	Low temperature: -30°C±3°C, temperature:+70°C±3°C, cycle: 1 hour/cycle each, and then keep 5 cycles in a room.
Vibration	10~55~10Hz sin-wave sweep 15min. 5G(constant) X,Y,Z 3 direction. 2 hours each, total 6 hours.
Fixed 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.
Free drop test	Free drop from 75cm height to the concrete floor X,Y,Z 6 direction. 1 times each, total 10 times.
Load test	Rated Power White noise is applied for 96 hours
Max power test	Max power 1 minute on 2 minutes off 10 cycles.
Terminal Strength test	The pull force shall be applied to double lead wire: Horizontal 3.0N (0,306kg) for 30 seconds Vertical 2.0N (0,204kg) for 30 secobds
General remark: After these test the change in S.P.L. shall be withing ±3 dB	

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Dimensions



Unit:mm Tol:±0.5

PART NO.	PART NAME	Q'TY	MATERIAL
1	Housing	1	PBT
2	Diaphragm	1	PEN
3	Voice coil	1	Paper+Cu
4	Plate	1	SPCC
5	Magnet	1	NdFeB
6	PCB	1	FR4
The material must meet GU-001			

Ordering information

Ordering can be done via www.summit-electronics.com or via info@summit-electronics.com. Please contact us for more information. Customisation of the product is available on request.

Technical support

For all product questions please contact us via info@summit-electronics.com

Document revision

Rev	Date	Changes
V01.00	10-03-2025	First issue of document