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# Component Specification

Product : Speaker  
Part Number : CA-SB3028A-1608ET  
Drawing No : K8169

## Content

1. General
2. Electrical & Acoustical Characteristics
3. Test Circuit
4. Frequency Response Curve
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## Notes:

This specification is subject to change or withdrawel without notice

This part is RoHs 2011/65/EU compliant

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## 1. General

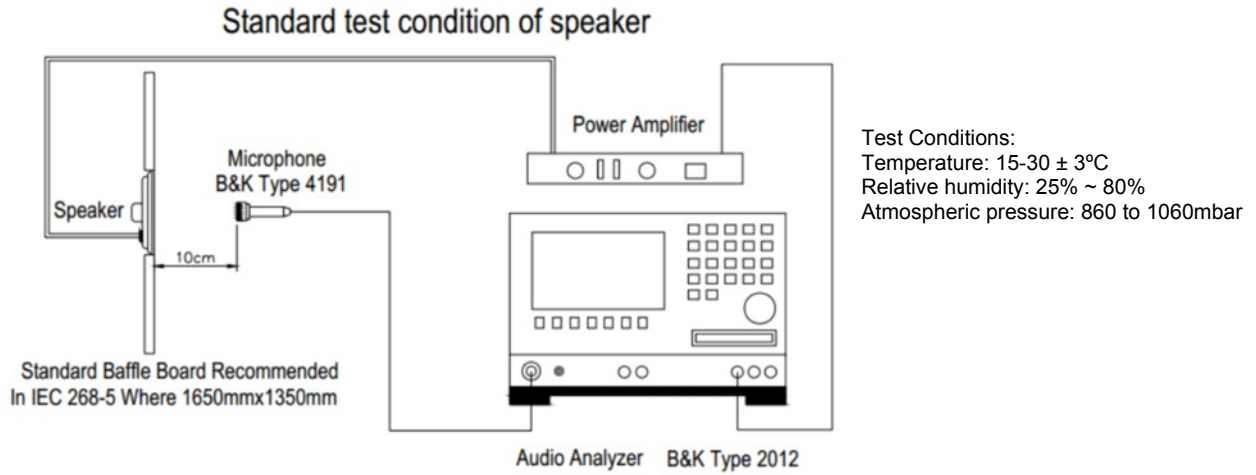
Speaker highly suitable for industrial applications.

## 2. Electrical and Acoustic Characteristics

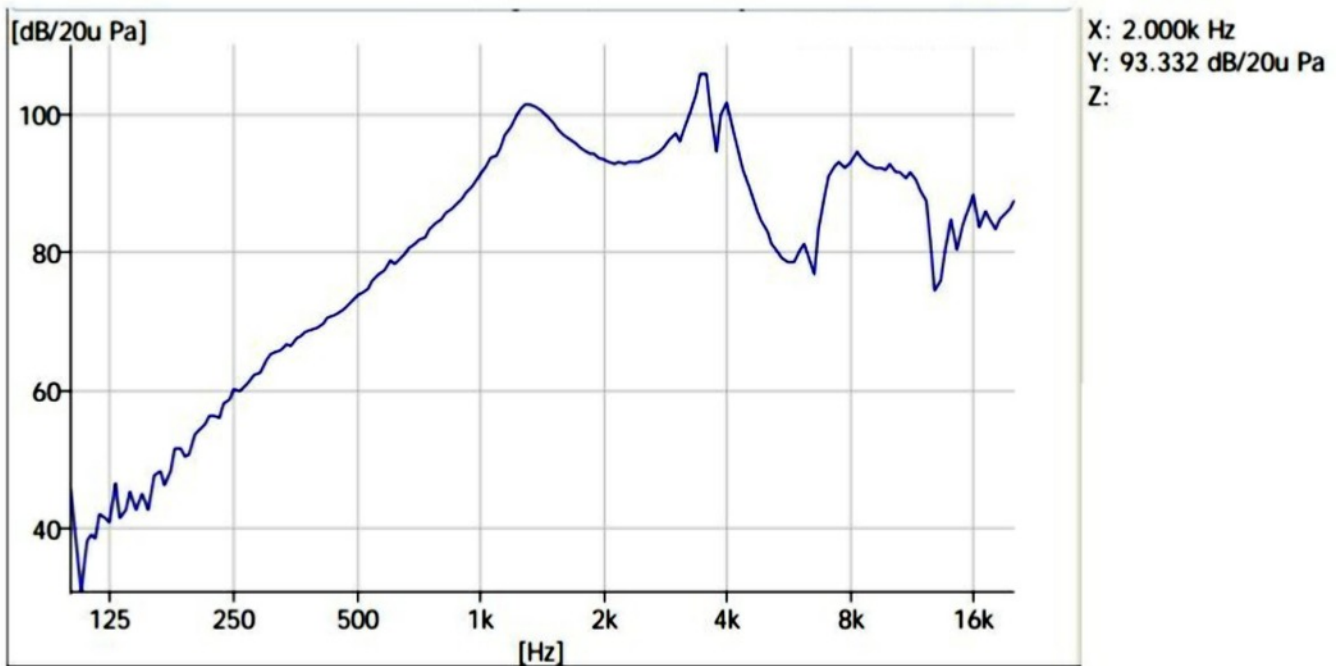
No	Items	Specification
	Impedance	16Ω ± 15% (1Vrms a 2.5Khz)
	Sound Pressure Level	90dB (0.1W/0.1m at 2.5kHz)
	Resonance Frequency	1250Hz ± 20%
	Frequency Range	f0~4KHz
	Input Power	Rated 0.8W / Max. 1.0W
	Distortion	<10% Max. At 2kHz/3.58Vrms
	Buzz and Rattle	Should not be audible buzzes, rattles when the 3.58Vrms sine wave signal swept at frequency range.
	Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to Forward.
	Dimensions	Φ30mm x 28mm
	Weight	10g
	Operating Temperature range	-40~+85 °C
	Store Temperature range	-40~+85 °C

1 . 0	16/10/15	Preliminary	L. Chen	S. Ge	G. Schubert
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### 3. Test Circuit



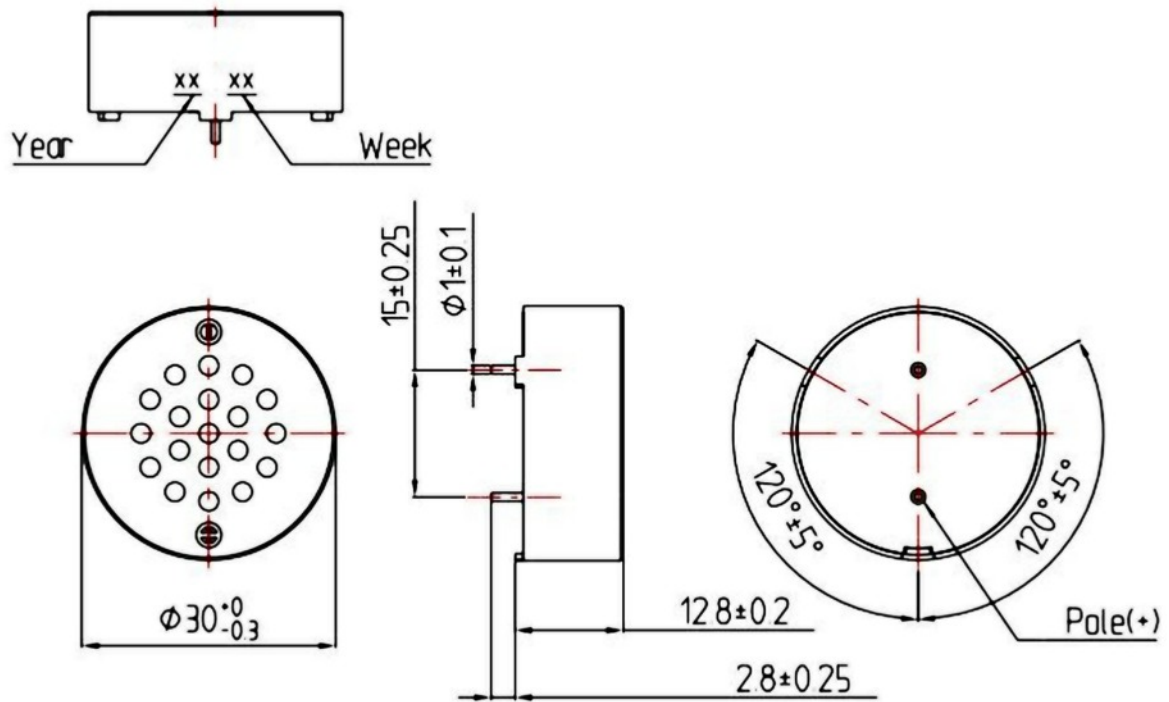
### 4. Frequency Response Curve



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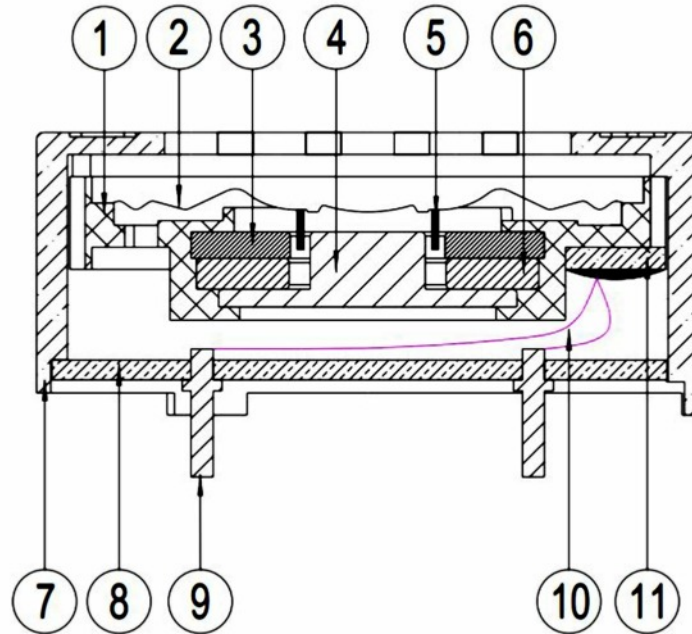
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### 5. Dimension



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### 6. Structure

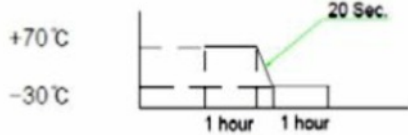


11	Terminal2	1	Epoxy and Cu	
10	Line	2	QA-1	
9	Pin	2	Cu	
8	Terminal1	1	Epoxy and Cu	
7	BOX	1	MPPO	
6	Magnet	1	Nd-Fe-B	
5	Voice Coil	1	Copper	
4	Yoke	1	SPCC	
3	Plate	1	SPCC	
2	Diaphragm	1	PEI	
1	Frame	1	MPPO	
No.	Part Name	Qty	Material	Remarks

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## 7. Reliability Test

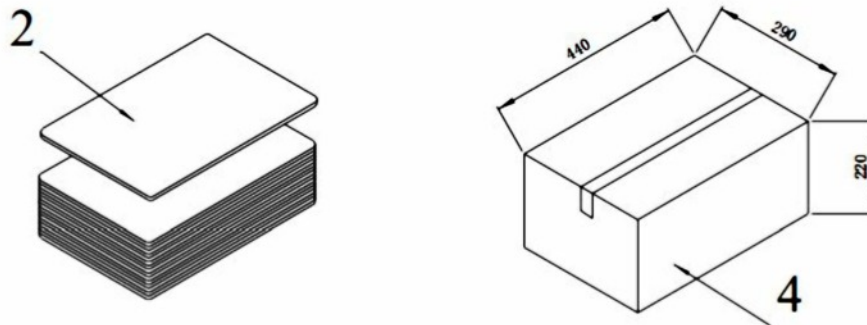
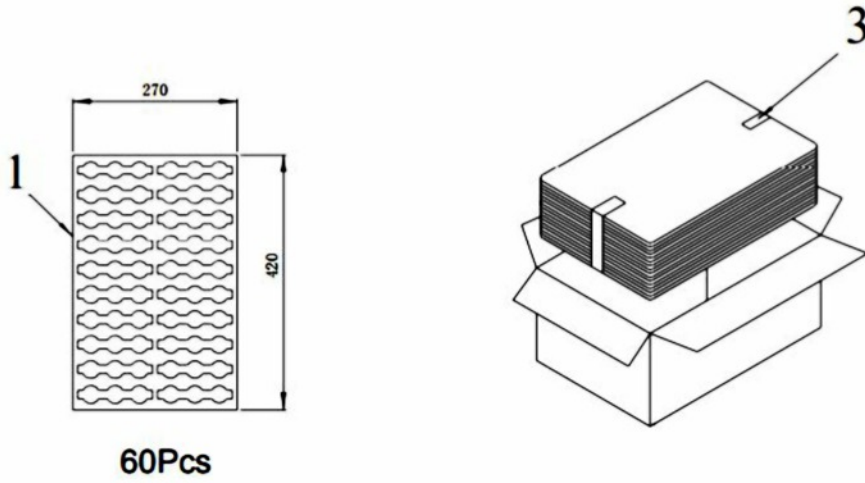
No	Items	Specification
1	High Temperature Test	After being placed in a chamber with $+85\pm 3^{\circ}\text{C}$ for 96 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
2	Low Temperature Test	After being placed in a chamber with $-40\pm 3^{\circ}\text{C}$ for 96 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
3	Humidity Test	After being placed in a chamber with 85 to 90%R.H. at $+40\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in natural condition for 1 hour, speaker shall be Measured.
4	Thermal Shock Test	<p>After being placed in a chamber at <math>+70^{\circ}\text{C}</math> for 1 hour, then speaker shall be placed in a chamber at <math>-30^{\circ}\text{C}</math> for 1 hour.(1 cycle is the below diagram). After 4 above cycles, speaker shall be measured after being placed in natural condition for 1 hour.</p> 
5	Vibration Test	After being applied vibration of amplitude of 1.5mm with 10 to 55Hz band of vibration frequency to each of 3 perpendicular directions for 1 hour, then placed in natural condition for 1 hour, speaker shall be measured.
6	Drop Test	The speaker when mounted in the jig which weight 85g~100g, shall with stand 15 times random drops from a height of 1.5 meter to a concrete floor faced with 5mm thick hard wood board. and be nothing mechanical damage.
7	Load test	After being applied loading white noise with input power 0.8W (3.58Vrms.) For 96 hours, then placed in natural condition for 1 hour, speaker shall be Measured.
8	Insulation test	When they are measured with DC 100V the insulation resistance between v.c. terminal and frame must be more than 1 MΩ

After test the speaker S.P.L. Difference shall be within  $\pm 3\text{dB}$ , and the appearance not exist any change to be harmful to normal operation ( e.g. Cracks, rusts, damages and distortion)

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## 8. Packing



**QTY:540Pcs**  
**440 x290 x220**

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