



Part No: CDMG15008-03A

Date: 12/06/2006

Unit: mm

Description: micro dynamic speaker

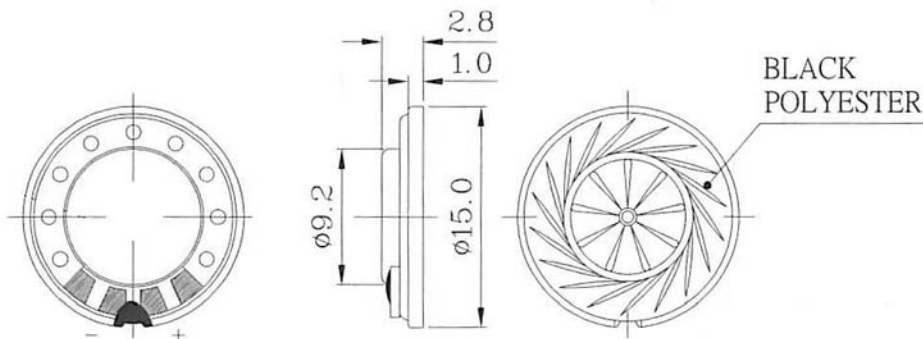
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Specifications

Dimensions	ø15.0 x 2.8 mm		
Impedance	8 Ohm ± 15%	at	1.5 KHz 1 V
Resonant frequency	900 Hz ± 20%	at	1 V
Sound pressure level	92 dB/w ± 3 dB	0.3 w 10 cm at 1.0K, 1.2K, 1.5K, 2.0K Hz	
	88 dB/w ± 3 dB	0.1 w 0.1m at 1.0K, 1.2K, 1.5K, 2.0K Hz	
Response	Fo Hz ~ 20 KHz max.		
Distortion	10% max.	at 1.5 KHz 0.3W	
Input power	Nominal 0.3 W	Handling capacity	0.5 W
Operation	must be normal at program source 0.3 W		
Buzz, rattle, etc.	must be normal at sine wave 1.55 V		
Operating temp.	-20 ~ +85°C		
Weight	1.2 g		
Material	Metal		
RoHS	yes		

Mechanical Drawing

Tolerance: ±0.2



The mylar will not exceed the metal frame when input is at the maximum power of 0.5W.





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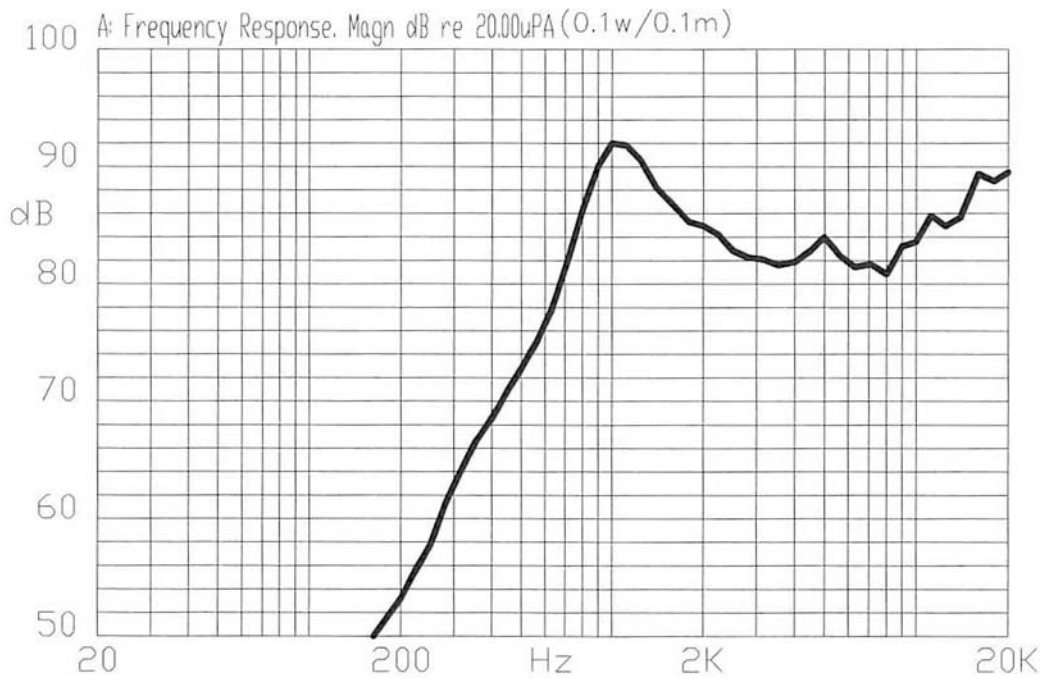
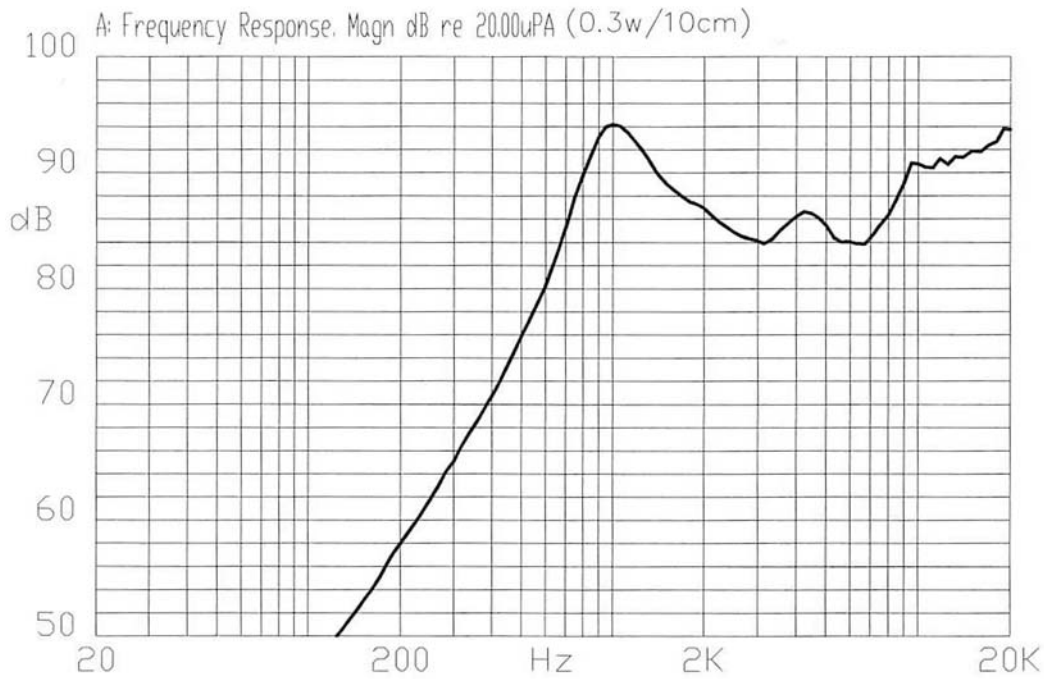
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Frequency Response Curve





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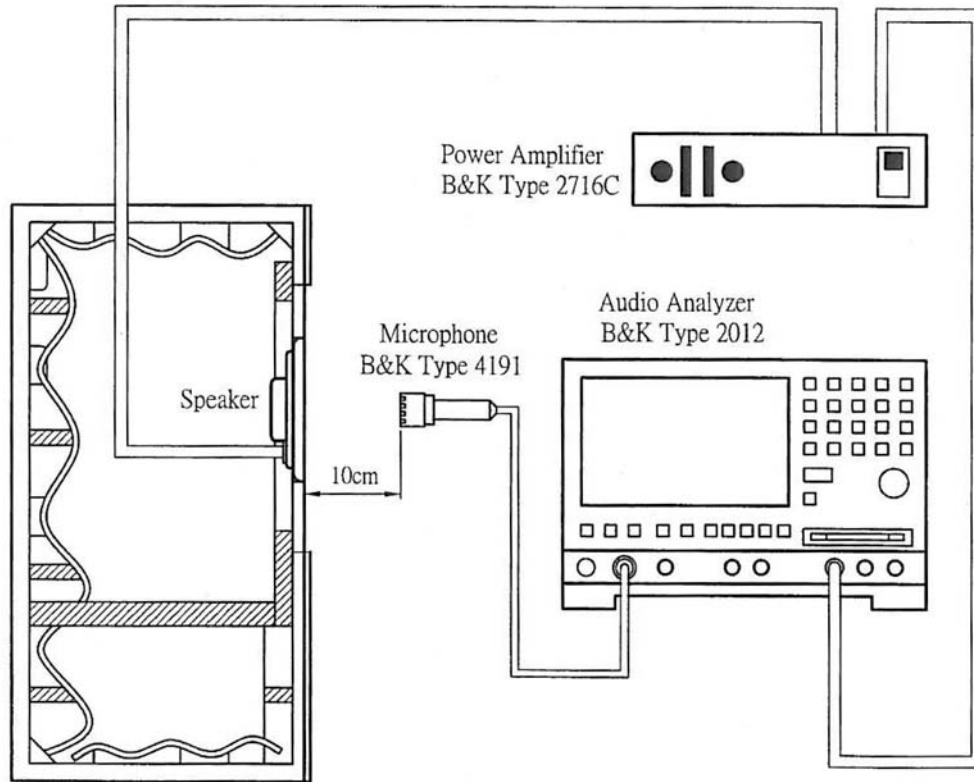
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Measurement Circuit



JIS C5531
940mm x 640mm x 1240mm



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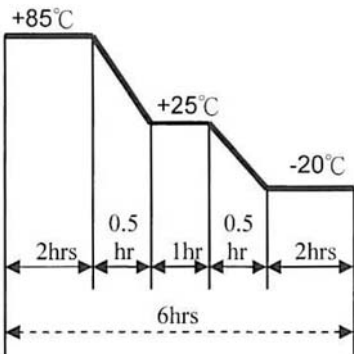
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Mechanical Characteristics

Item	Test Condition	Evaluation Standard
Solderability (Connector Excepted)	Stripped wires of lead wires are immersed in rosin for 5 seconds and then immersed in solder bath of $+270 \pm 5^{\circ}\text{C}$ for 3 ± 0.5 seconds.	90% min. stripped wires will be wet with solder. (Except the edge of the terminal.)
Lead Wire Pull Strength	The pull force should be applied to double lead wire: Horizontal 3.0N (0.306kg) for 30 seconds Vertical 2.0N (0.204kg) for 30 seconds	No damage or cutting off.
Vibration	The speaker should be measured after applying a vibration amplitude of 1.5 mm with 10 to 55 Hz band of vibration frequency to each of the 3 perpendicular directions for 2 hours.	No obstacle will be harmful to normal operation; damage, cracks, rust, and distortions.
Drop Test	The part will be dropped, contained inside a normal box, from a height of 75 cm onto a 40 mm thick wooden board 10 times.	Should not be audible at 1.55 V sine wave between Fo ~ 20 KHz.

Environment Test

Item	Test Condition	Evaluation Standard
High temp. test	After being placed in a chamber at 85°C for 8 hours.	The speaker will be measured after being placed at $+25^{\circ}\text{C}$ for 6 hours. No obstacle will be harmful to normal operation; damage, cracks, rust, and distortions. Should not be audible at 1.55 V sine wave between Fo ~ 20 KHz. The SPL should be within $\pm 3\text{dB}$ when compared to the initial measurements.
Low temp. test	After being placed in a chamber at -20°C for 96 hours.	
Humidity test	After being placed in a chamber at $+60^{\circ}\text{C}$ and 90% relative humidity for 240 hours.	
Temp. cycle test	The part shall be subjected to 5 cycles. One cycle will consist of: 	



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Reliability Test

Item	Test Condition	Evaluation Standard
Load Test	0.3 W white noise, applied for 24 hours, at room temperature.	The speaker will be measured after being placed at +25°C for 1 hours. No obstacle will be harmful to normal operation; damage, cracks, rust, and distortions. Should not be audible at 1.55 V sine wave between Fo ~ 20 KHz. The SPL should be within ±3dB when compared to the initial measurements.

Test Conditions

Standard Test Condition	a) Temperature: +5 ~ +35°C	b) Humidity: 45 - 85%	c) Pressure: 860-1060 mbar
Judgement Test Condition	a) Temperature: +25 ±2°C	b) Humidity: 60 - 70%	c) Pressure: 860-1060 mbar

Packaging

