CUI Devices is now Same Sky! Learn More

MODEL: CDMG13008L-02 | DESCRIPTION: SPEAKER

FEATURES

- metal frame
- PET cone

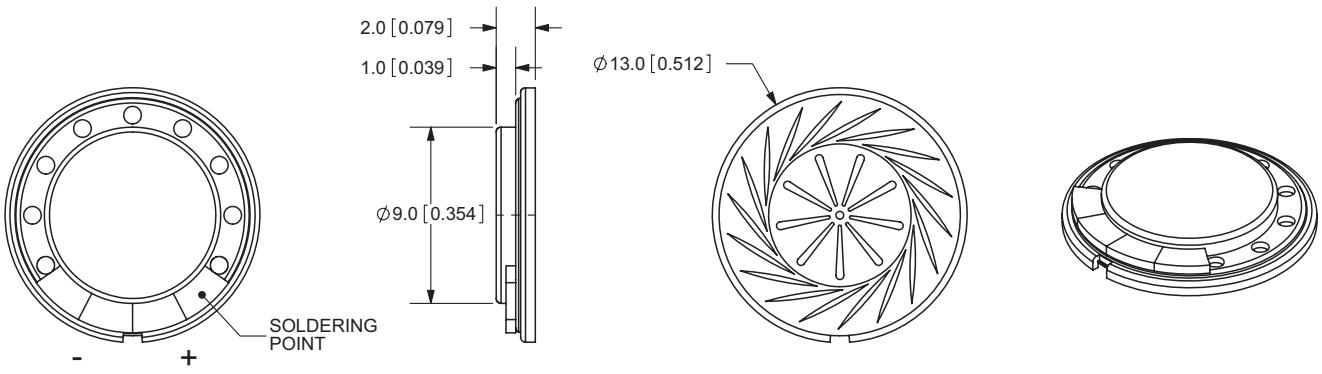
RoHS

SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
dimension	ø13 x 2 mm				
input power	max. power: IEC-60268-5, filter 60 s on / 120 s off, 10 cycles at room temp		0.2	0.4	W
impedance	at 1.5 kHz, 1 V	6.8	8	9.2	Ω
resonant frequency	at 1 V	840	1,050	1,260	Hz
sound pressure level	0.2 W, 10 cm ave. at 1.5, 2, 2.5, 3.0 kHz 1 W, 1 m ave. at 1.5, 2, 2.5, 3.0 kHz	83 72	86 75	89 78	dB dB
response				20,000	Hz
distortion	at 1.5 kHz, 0.2 W			10	%
buzz, rattle, etc.	must be normal at sine wave 1.26 V				
magnet size	ø7 x 0.7 mm (Nd-Fe-B)				
operating temperature		-20		55	°C
weight			0.7		g
material	metal				
RoHS	yes				

MECHANICAL DRAWING

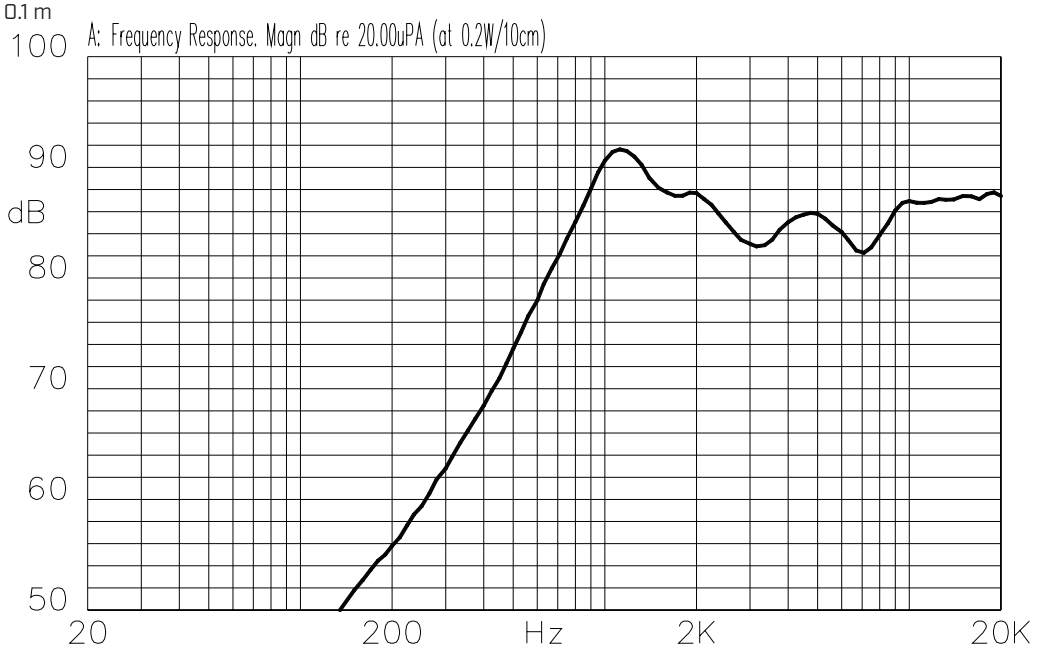
units: mm
tolerance: ± 0.3mm

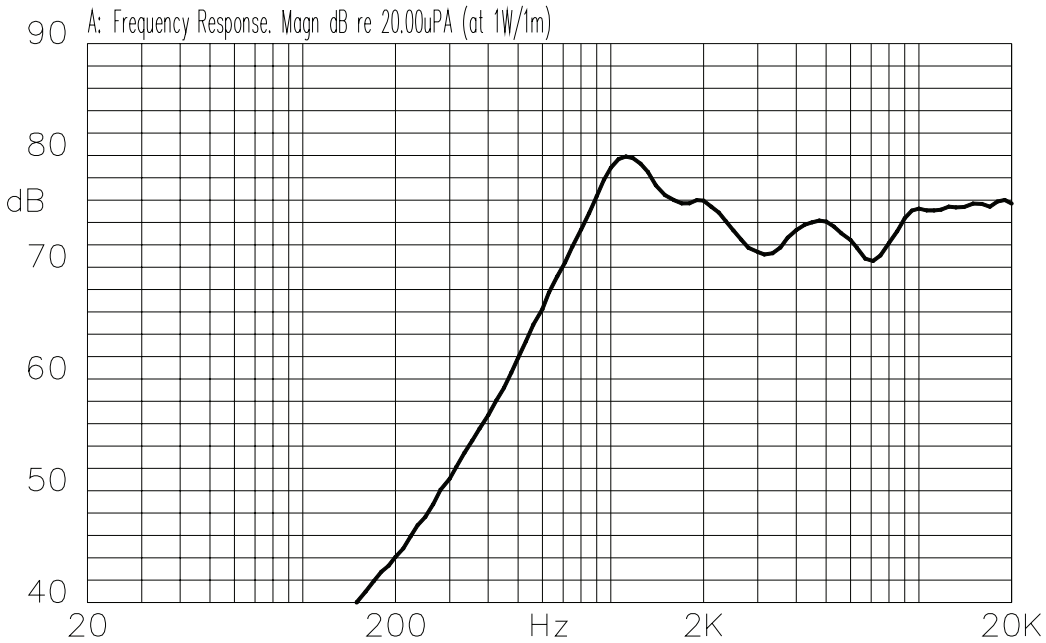


RESPONSE CURVES

Frequency Response Curve

Test Conditions: 3.0 W / 0.1 m



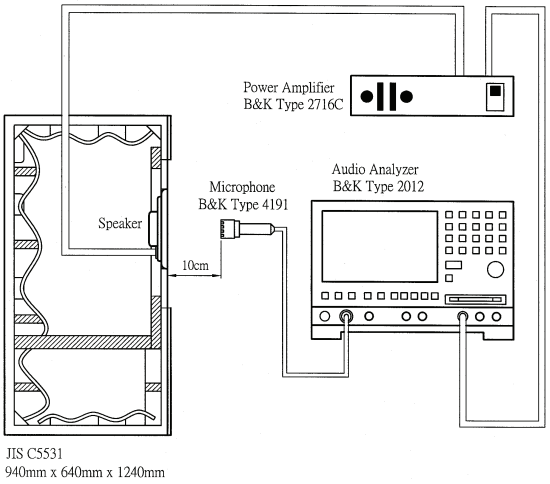


THIELE-SMALL PARAMETERS

parameter	conditions/description	typ
Mechanical Q Factor	Qms	8.3172
Electrical Q Factor	Qes	30.5144
Total Q Factor	Qts	6.5358
Compliance Equivalent Volume	Vas	0.0002

Notes: 2. Results represent typical performance in Free Air conditions.

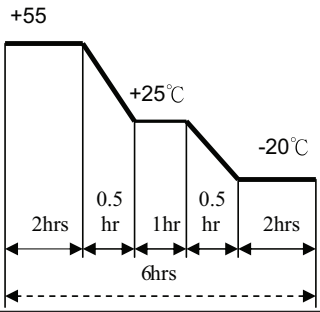
MEASUREMENT METHOD



MECHANICAL CHARACTERISTICS

item	test condition	evaluation standard
PCB wire pull strength	The pull force will be applied to double lead wire: horizontal 3.0 N (0.306 kg) for 30 seconds	No damage or cutting off
vibration test	The speaker should be measured after a vibration amplitude of 1.5 mm with 10 ~ 55 Hz band of vibration frequency to each of the 3 perpendicular directions for 2 hours.	After the test, there will be no appearance or internal damage such as cracks, rust, or distortions that will affect normal speaker operation. There should be no audible sound distortion at 1.26 V sine wave between Fo ~ 20 KHz.
drop test	The speaker contained in normal box is subjected to 10 drops from the height of 75cm onto a 40mm thick wooden board.	

ENVIRONMENT TEST

item	test condition	evaluation standard
high temperature test	After being placed in a chamber at +55°C for 96 hours.	The buzzer will be measured after being placed at +25°C for 6 hours. After the test, there will be no appearance or internal damage such as cracks, rust, or distortions that will affect normal speaker operation. There should be no audible sound distortion at 1.26 V sine wave between Fo ~ 20 KHz. The Fo should meet initial measurements. SPL should be within ±3dB compared to the initial measurements.
low temperature test	After being placed in a chamber at -20°C for 96 hours.	
humidity test	After being placed in a chamber at +40°C and 90 ±5% RH for 96 hours.	
temperature cycle test	The part will be subjected to 5 cycles. One cycle will consist of: 	

RECOMMENDED TEMPERATURE PROFILE FOR HAND SOLDERING

item	conditions/description
hand soldering	370 ±10°C for 3 ±1 seconds

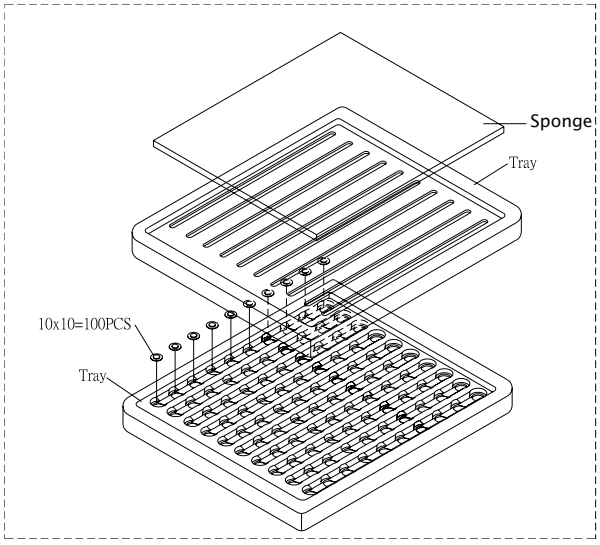
RELIABILITY TEST

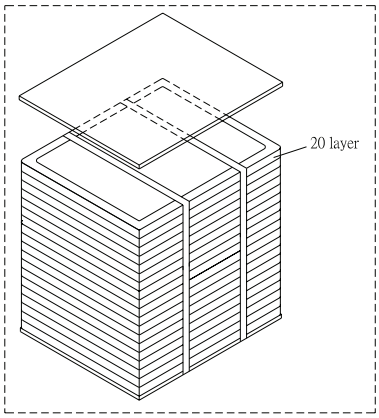
item	test condition	evaluation standard
operating (life test)	1. Load test: The part will be subjected to 96 hours of continuous white noise at 0.2 W at room temperature.	The buzzer will be measured after being placed at +25°C for 1 hours. After the test, there will be no appearance or internal damage such as cracks, rust, or distortions that will affect normal speaker operation. There should be no audible sound distortion at 1.26 V sine wave between Fo ~ 20 KHz. The Fo should meet initial measurements. SPL should be within ±3dB compared to the initial measurements.

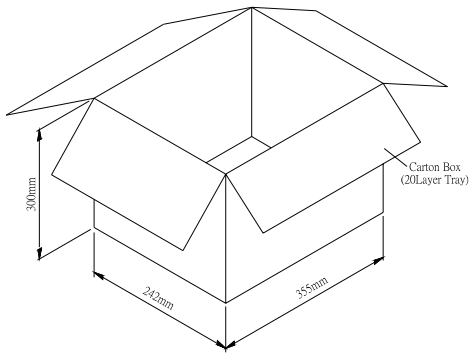
TEST CONDITIONS

standard test conditions	a) Temperature: +5 ~ +35°C	b) Humidity: 45 ~ 85%	c) Pressure: 860 ~ 1060 mbar
judgement test conditions	a) Temperature: +25 ±2°C	b) Humidity: 60 ~ 70%	c) Pressure: 860 ~ 1060 mbar

PACKAGING







Tray	350mmx235mmx20mm	1x100PCS=100PCS
Carton Box	355mmx242mmx300mm	100PCSx20=2,000PCS

REVISION HISTORY

rev.	description	date
1.0	initial release	10/18/2006
1.01	new spec template applied	10/26/2011
1.02	brand update	01/20/2020
1.03	logo, datasheet style update	08/05/2022
1.04	CUI Devices rebranded to Same Sky	09/11/2024
1.05	added Thiele-Small Parameters	02/07/2025

The revision history provided is for informational purposes only and is believed to be accurate.

Same Sky offers a one (1) year limited warranty. Complete warranty information is listed on our website.

Same Sky reserves the right to make changes to the product at any time without notice. Information provided by Same Sky is believed to be accurate and reliable. However, no responsibility is assumed by Same Sky for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

Same Sky products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

sameskydevices.com