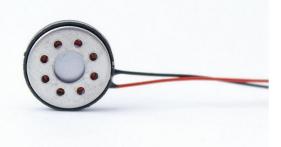


SP DYNAMIC SPEAKER UNIT

Acoustic Product Specification

Product Number: SP-1303L



Release | Revision: B/2018

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Dynamic Speaker Electroacoustic Characteristics

Sound Pressure Level

 87 ± 3 dB SPL @1.0, 1.2,1.5 and 2.0KHz in average (0dB SPL= 20μ Pa) **Measuring Condition:** 0.1W (Sine wave) 10cm measured with baffler shown in Fig.1.

Frequency Response Curve

As shown in Figure 2

Response Frequency

1100±20%Hz @ 1V. (Without Baffler)

Input Power (Nominal and Maximum)

Rated Noise Power 0.5W

Short Term Max Power: 0.8W must be normal at a white noise $(1W, F0 \sim 20KHz)$ for one minute

Operation Test

Must be free audible noise (buzzes and rattles)

(300 ~ 8KHz frequency range, input level up to 2.0 Vrms)

Distortion

Less than 10% @1KHz, 0.1M, 0.1W frequency range, input level up to 0.1W

General Specifications

Operating Temperature Range

-20°C~+60°C

Storage Temperature Range

-30°C~+70°C

Standard Test Conditions

Temperature 17°C~25°C

Relative Humidity 45%~80%(RH)

AC Impedance

8±15% Ω (@2KHz 1V) without baffler

Dimension

Ø13.0x3.3mm WIRE (45mm)

IP Level

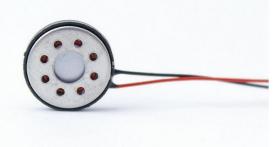
IP50



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Reliability Tests

The sound pressure as specified will neither deviate more than ±3dB from the initial value, nor have any significant damage after any of following testing.

High Temperature Test

High Temperature +60±2°C

Duration 96 hours

Low Temperature Test

Low Temperature -20±2°C

Duration 96 hours

Heat Shock Test

High Temperature +60±2°C

Low Temperature -20±2°C

Changeover Time < 30 seconds

Duration 1 hour

Cycle 100

Humidity Test

Temperature + 40±2°C

Relative Humidity 90%~95%

Duration 96 hours

Temperature Cycle Test

Temperature -20°C +60°C

Duration 45 minutes 45 minutes

Temperature gradient 1~3°C/min

Cycle 25

Drop Test

Mounted with dummy set mass 100 g

Height 1.5 m

Cycle 6 (1 each plain) onto the concrete board

Load Test

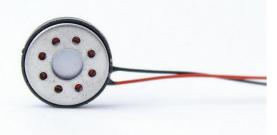
Speaker mode: White noise (EIA filter) for 96 hours @ 0.5W input power.



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Measuring Method (Speaker Mode)

Standard Test Condition

Temperature 15 ~ 35°C

Relative humidity 45% ~ 85%

Atmospheric pressure 860mbar to 1060mbar

Standard Test Fixture

Input Power 0.1W

Zero Level -dB

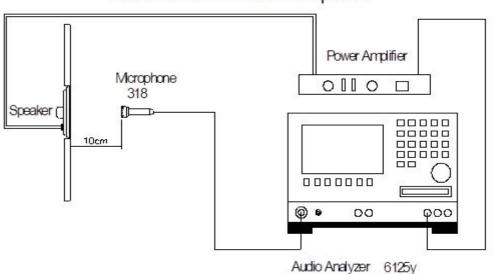
Mode TSR

Potentiometer Range 50dB

Sweep Time 0.5sec

Standard Test Condition of Speaker (Fig. 1)

Standard test condition of speaker

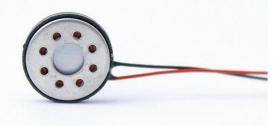




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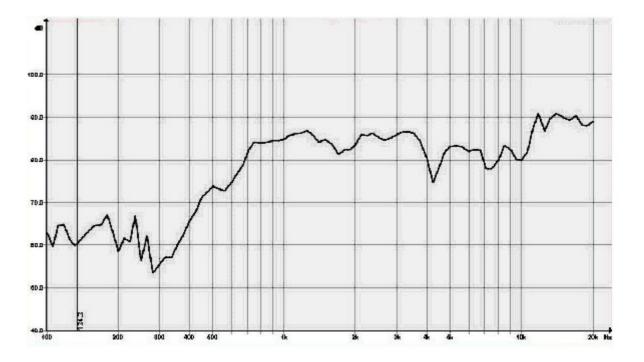
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Frequency Response Curve (Fig. 2)



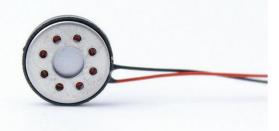




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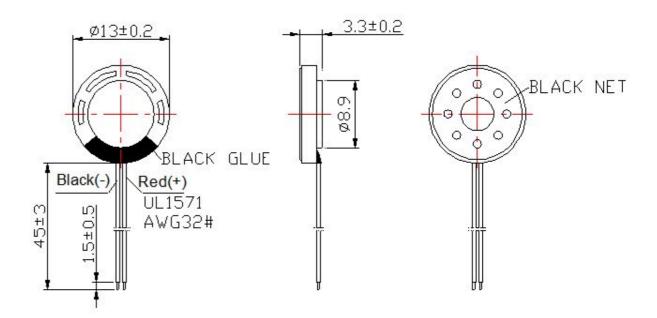
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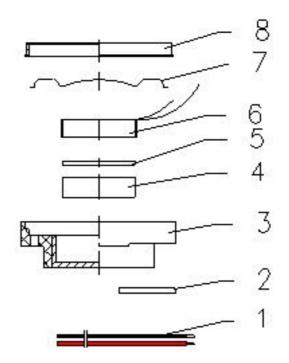
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Tolerance: ±0.5 (unit: mm)





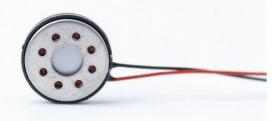
No.	Part Name	Material	Quantity
1	Wire	UL1571 AWG32#	2
2	PCB	FR-4	1
3	Frame	PBT	1
4	Magnet	Nd Fe B	1
5	Plate	SPCC	1
6	Voice Coil	Polyurethane Enamelled Wire	1
7	Diaphragm	PET	1
8	Сар	SUS 304	1



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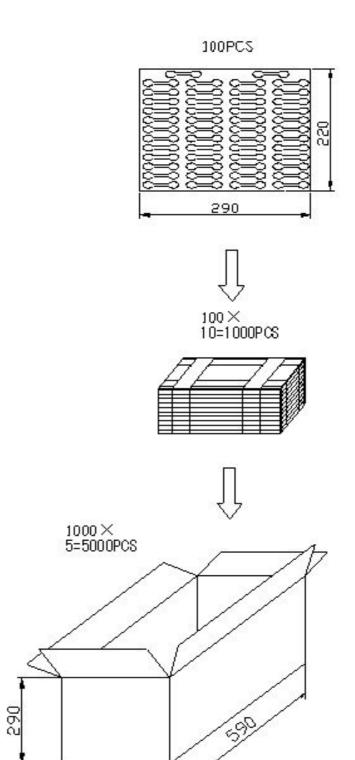
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