

General Description

Ø4.0mm x 1.5mm, Noise Canceling Microphone



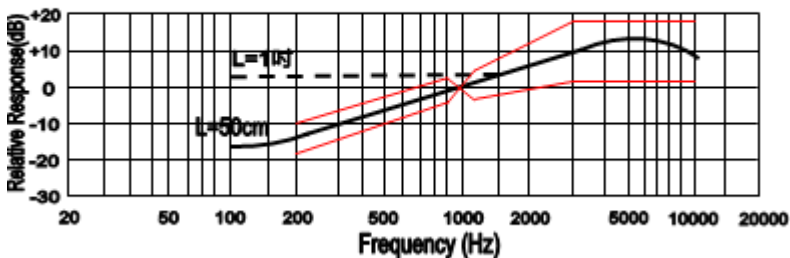
ELECTRICAL SPECIFICATIONS

| Parameters | | Value | | | Unit |
|-----------------------------|-------------------------------------|-------|--------|-----|------|
| | | min | center | max | |
| Sensitivity | @ 0dB=1V/Pa, @ 1kHz | -45 | -42 | -39 | dB |
| Current Consumption | @ Vcc =2.0V,RL=2.2kΩ | | | 500 | μA |
| Output Impedance | @ f=1kHz | | | 5.5 | kΩ |
| Decreasing Voltage | @ Vcc=3.0V ~ 2.0V | | | -3 | dB |
| Signal to Noise Ratio | @ 1kHz S.P.L=1Pa (A-Weighted Curve) | 55 | | | dB |
| Operating Voltage | | 1.4 | | 5 | V |
| Input S.P.L, max | | | | 110 | dB |
| Operating Temperature Range | | -40 | | +85 | °C |
| Storage Temperature Range | | -40 | | +85 | °C |

FREQUENCY CHARACTERISTICS

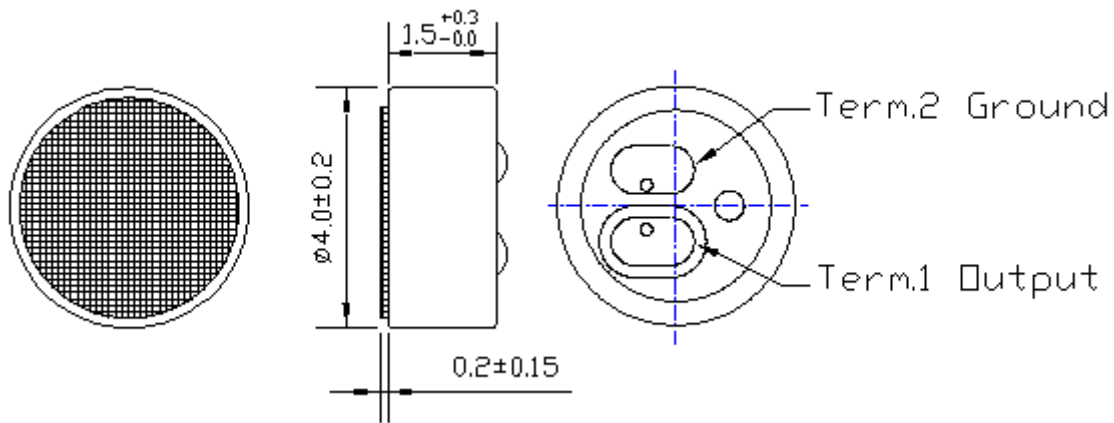
Microphone Response Tolerance Window

Frequency Response

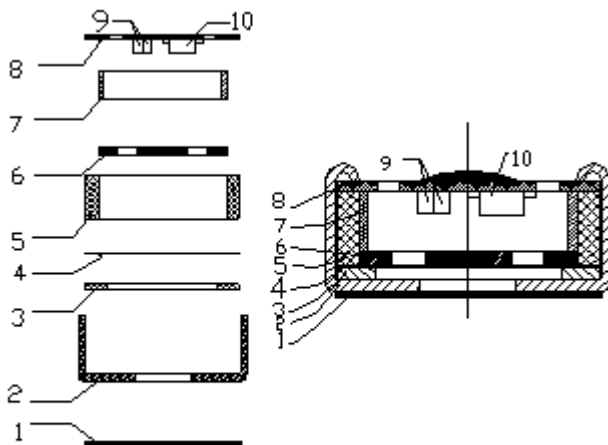


| Frequency (Hz) | Lower Limit(dB) | Upper Limit(dB) |
|----------------|-----------------|-----------------|
| 200 | -18 | -10 |
| 800 | -6 | +2 |
| 1000 | 0 | 0 |
| 1200 | -4 | +4 |
| 3000 | +2 | +18 |
| 5000 | +2 | +18 |
| 10000 | +2 | +18 |

DIMENSIONS AND MATERIAL/STRUCTURE

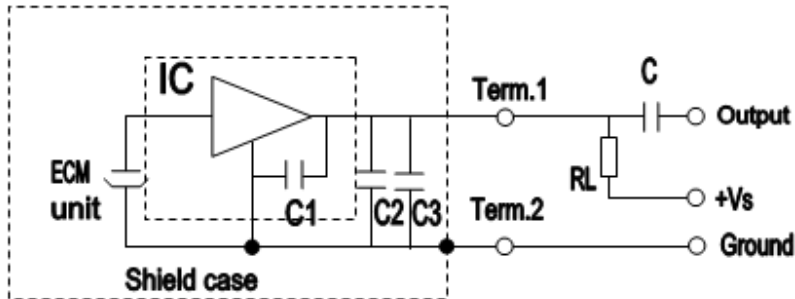


Unit: mm



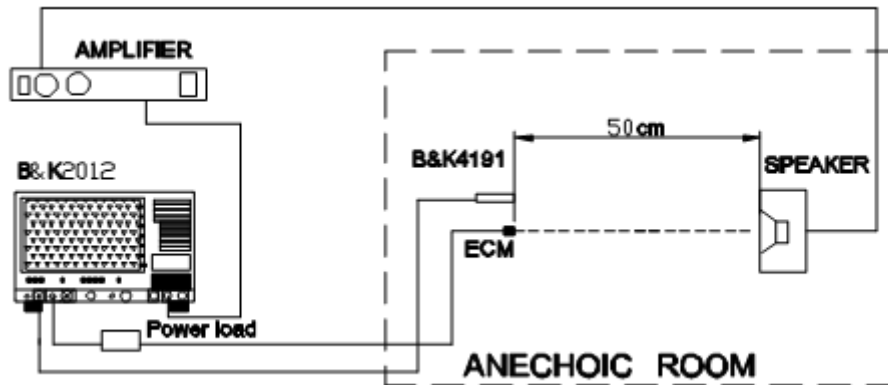
| | | | |
|------------|-----------------|---------------------------|------------|
| 10 | FET | Build in 10 PF capacitors | 1 |
| 9 | capacitors | | 2 |
| 8 | PCB | FR4 | 1 |
| 7 | Copper ring | | 1 |
| 6 | Electret Plate | | 1 |
| 5 | Chamber | | 1 |
| 4 | Spacer | | 1 |
| 3 | Diaphragm | | 1 |
| 2 | Case | Al-Mg alloy | 1 |
| 1 | Dustproof gauze | Non-weave cloth | 1 |
| No. | Name | Material | QTY |

MEASUREMENT CIRCUIT



| |
|------------------|
| $R_L=2.2K\Omega$ |
| $V_s=3.0V$ |
| $C1=10PF$ |
| $C2=33PF$ |
| $C3=22NF$ |
| $C=1\mu F$ |

MEASUREMENT SETUP DRAWING



APPROVAL

| | |
|-------------|-----------------------|
| DRAWN BY | AR, December 12, 2023 |
| APPROVED BY | CP, December 12, 2023 |
| REVISION | A, Initial Release |



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