

Features

- Electret condenser microphone
- Omni-directional
- Leads
- Sensitivity -42dB
- Max. operating voltage 10V
- IP67
- Diameter 4mm, Height 1.5mm

RS PRO Omni-directional Condenser Microphone 4mm, -42dB, IP67, Leads

RS Stock No.: 0737617



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

This 4mm diameter, omni-directional electret microphone has a sensitivity rating of -42dB. It has wire leads for easy fixing within an application. It is also IP67 rated around the aperture. Component microphones are widely used for audio recording, voice recognition and audio sensing products. Typical applications for electret condenser microphones include:

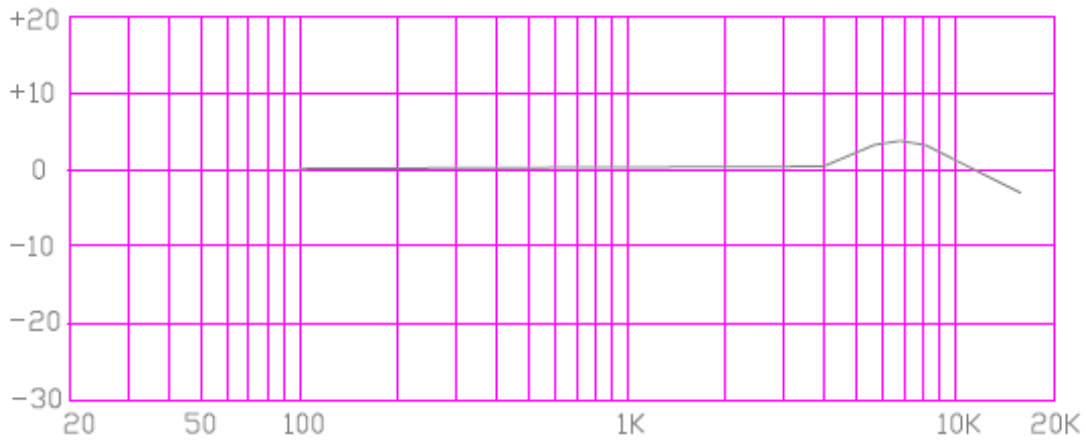
APPLICATIONS:

- Access & security
- Entry panels
- PDAs
- Consumer electronics
- Communications equipment
- Recording devices
- Telephones
- Hearing aids
- Computers

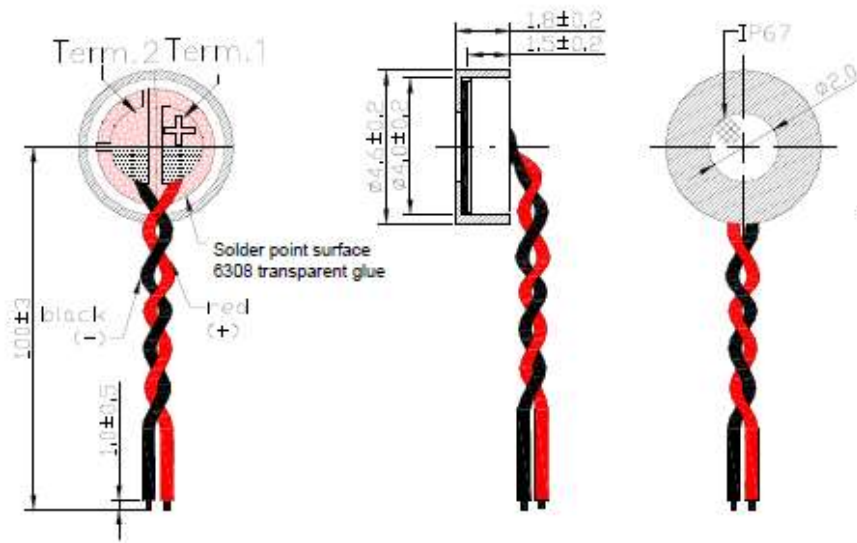
Electrical Specifications

No.	Item	Unit	Specification	Condition
1	Directivity		Omnidirectional	
2	Sensitivity	dB	-42 ± 3 dB	F=1KHz 0dB=1V/Pa
3	Standard operating voltage	V	2	
4	Bias resistor	Ω	2.2K	F=1KHz 1Pa
5	Operating voltage range	V	1.5 - 10	
6	Sensitivity reduction	dB	-3	At 3.0V to 1.5V
7	Frequency	Hz	50~16000Hz	
8	Max.current consumption	mA	0.5	
9	Signal to noise ratio	dB	60	F=1KHz 1Pa A weighted
10	Storage temp	$^{\circ}\text{C}$	$-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$	
11	Operating temp	$^{\circ}\text{C}$	$-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$	
12	Dimension	mm	$\Phi 4.0 \times 1.5$	See appearance drawing
13	Material		AL	
14	Terminal		Wire Type	See appearance drawing

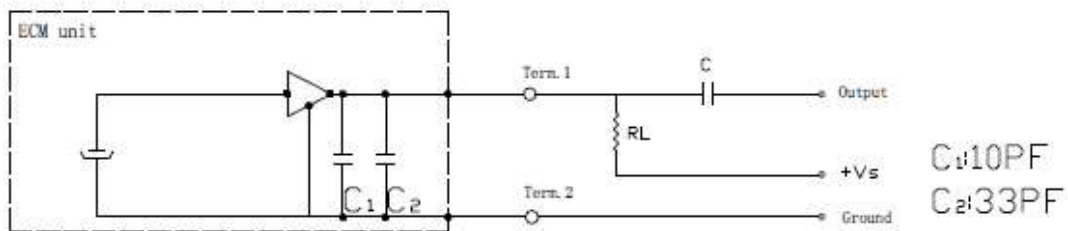
B. TYPICAL FREQUENCY RESPONSE CURVE



C. APPEARANCE DRAWING & MEASUREMENT CIRCUIT



Wire Type: UL1571 30AWG



D. MECHANICAL CHARACTERISTICS

No.	Item	Test condition	Evaluation standard
1	Soldering Heat Resistance	Soldering iron of $+330\pm 5^{\circ}\text{C}$ should be placed on the terminal for 2 ± 0.5 seconds.	No interference in operation
2	Vibration Test	The part shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55hz band of vibration frequency to each of 3 per-pendicular directions for 2 hours.	After any tests, the sensitivity to be within $\pm 3\text{dB}$ of the initial sensitivity.
3	Drop Test	The microphone unit without packaged must be subjected to each 3 drops at three axes from the height of 1 meter to 20mm thick wooden board.	

E. ENVIRONMENTAL TEST

NO.	Item	Test conditions	Evaluation standard
1	High temp.test	After being placed in a chamber at $+70^{\circ}\text{C}$ for 72 hours.	After any tests, the sensitivity to be within $\pm 3\text{dB}$ of initial sensitivity after 6 hours of conditioning at $+25^{\circ}\text{C}$
2	Low temp. test	After being placed in a chamber at -25°C for 72 hours.	
3	Humidity test	After being placed in a chamber at $+60^{\circ}\text{C}$ and $90\pm 5\%$ relative humidity for 240 hours.	
4	Temp.cyle test	<p>The part shall be subjected to 10 cycles. One cycle shall be consist of:</p>	

TEST CONDITION

Standard Test Condition: a)Temperature: $+5\sim +35^{\circ}\text{C}$ b)Humidity:45-85% c)Pressure:860-1060mbar

Judgement Test Condition: a)Temperature: $+25\pm 5^{\circ}\text{C}$ b)Humidity:60-70% c)Pressure:860-1060mbar