

Electret Condenser Microphone

Customer	
Customer P/O	
Customer Spec. No.	
Bestar Model Name	BCM9745-42
Product No.	190407
Issue No.	BS/TEM01.053A
Issue Date	04/10/04

Approval:

- 1.Characteristic
- 2.Appearance
- 3.Environment Test

Prepared	Chec.	Appr.	Revision		
			No.	Date	Contents
			0		
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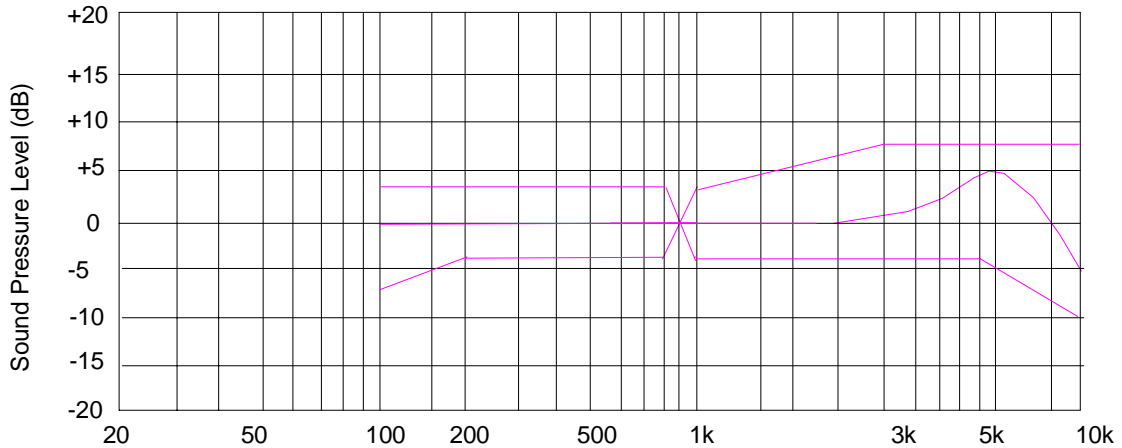
BCM9745-42

1. Characteristics

Test Condition (Vs=3.0V RL=2.2KΩ Ta=20 R.H.=50%)

No.	Item	Specifications
1	Sensitivity (dB)	-42±2(0dB=1V/Pa,1kHz)
2	Output Impedance (Ω)	Max. 2200±10% at 1kHz
3	Current Consumption (mA)	0.5mA Max.
4	S/N Ratio	58dB (A Curve)
5	Directivity	Omnidirectional
6	Decreasing voltage	-3dB
7	Weight	≤ 1.0g
8	Operating Temperature	-20~+60 °C
9	Storage Temperature	-25~+70 °C

★Frequency Resonse Curve



Operating Voltage : 1.1V to 10V

Max. SPL :120dB

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3rd angle
projection

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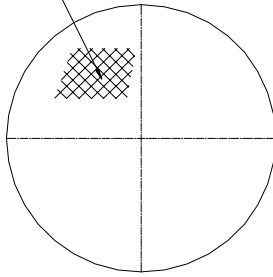
DRG NO

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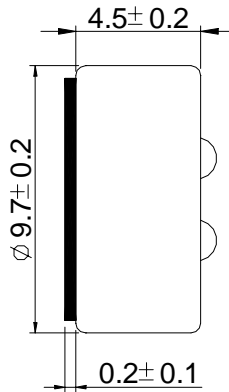
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2.Appearance

FILTER

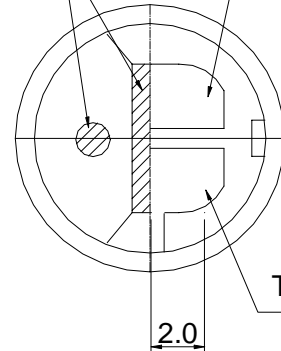


Without cloth



Mark(white)

Term.1 output



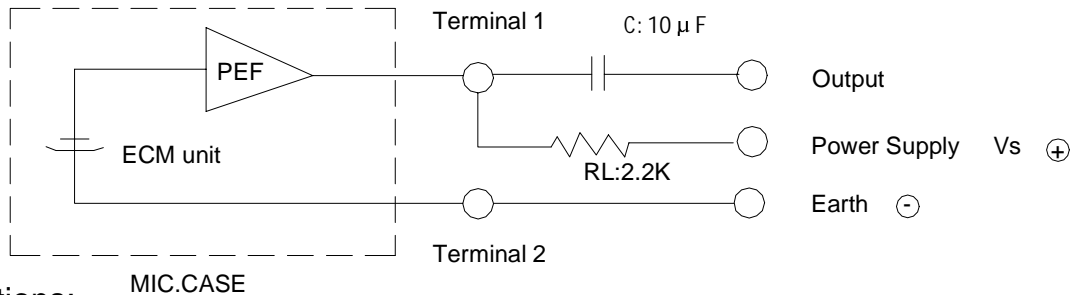
Term.2 Ground

2.0

Notes:

1. Not to scale
2. All dimensions are in millimeters
3. Item to be free of burrs and sharp edges

Measurement Circuit:



Cautions:

1. The soldering copper of a smaller type of less than 20W shall be applied.
2. The temperature of the working surface of the soldering copper shall be below 270 °C
3. ECM shall be soldered fixed on the metal block (heat sink) which has the higher radiation effects said heat sink shall contact with each of ECM.
4. The soldering time for each terminal shall be 1~2 seconds.
5. The pin hole after soldering shall be avoided.
6. ECM may easily be destroyed by static electricity, and the countermeasure for elimination of static electricity (the ground or soldering copper, for worktable and for human body) shall be executed.
7. After soldering ECM keeps 2 hours, SPL shall be tested.
8. Environment Test Condition: temperature: $20 \pm 2^{\circ}\text{C}$ humidity: $\leq 65\%$

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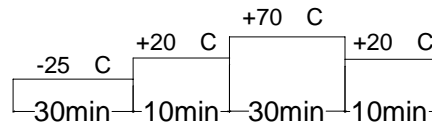
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3.Environment Test

- | | | |
|-----|------------------------|--------|
| 3.1 | High temp.life test | |
| | Temperature | +70 °C |
| | Duration | 200hrs |
| 3.2 | Low temp.life test | |
| | Temperature | -25 °C |
| | Duration | 200hrs |
| 3.3 | Temperature cycle test | |
| | Cycles | 5 |



- | | | |
|---|--|------------------------------|
| 3.4 | Humidity Test | |
| | Temperature | +40 °C |
| | Relative Humidity | 90~95 % |
| | Duration | 200hrs |
| Tests above should be measured after leaving normal temperature for 2hrs. | | |
| 3.5 | Vibration Test | |
| | Vibration Frequency | 10~55Hz |
| | Amplitude | 1.52mm/min |
| | Direction | 3(x.y&z) |
| | Duration | 2hrs each cycle(total 6 hrs) |
| 3.6 | Drop test | |
| | Height | 100cm |
| | (Dropped to concrete floor in state of packing.) | |
| | Direction | 3 |
| 3.7 | Soldering Heat Shock | |
| | Temperature | 260 °C ± 5 |
| | Duration | 2 ± 0.5 sec |
| 3.8 | Terminal Mechanical Strength | |
| | Strength | 1kg |
| | Duration | 1 min |

Notice:

All specifications must be satisfied in this condition.
Sensitivity :Allowable deviation within ± 3dB from initial sensitivity.

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