

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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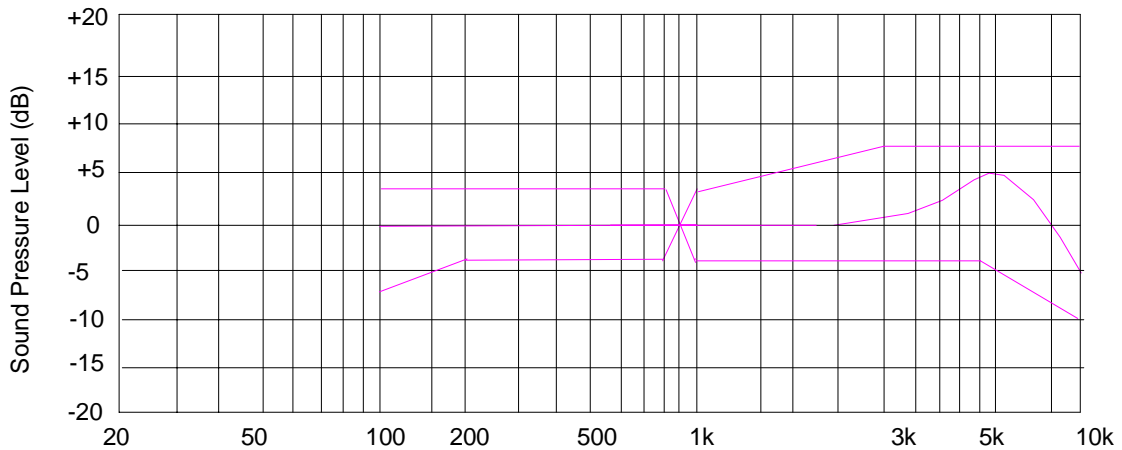
BCM9745-42

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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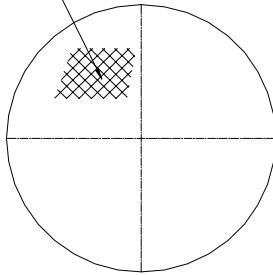
DRG NO

BS/TEM01.053A

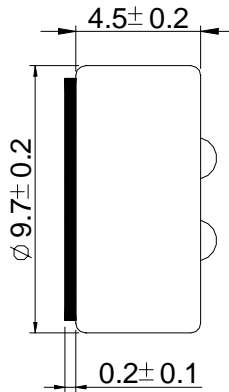
BCM9745-42

2.Appearance

FILTER

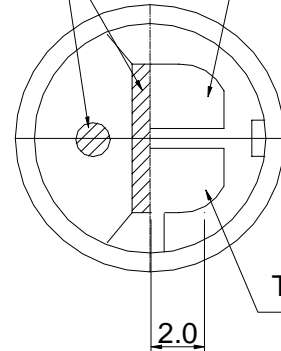


Without cloth



Mark(white)

Term.1 output

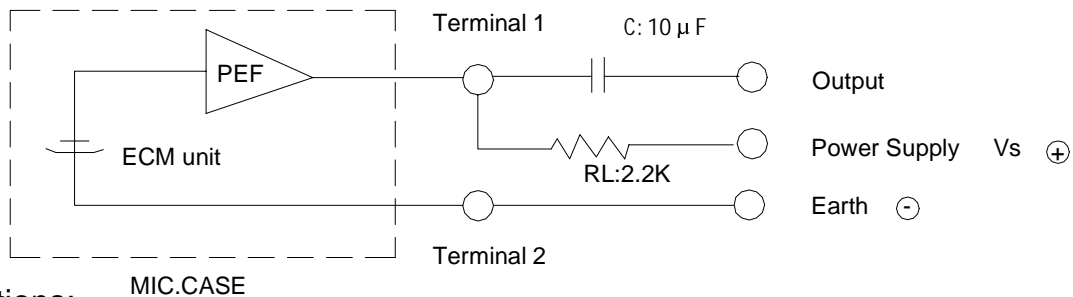


Term.2 Ground

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 destroyed by the static electricity.and the countermeasure for elimination the 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 ±2°C humidity ≤ 65%

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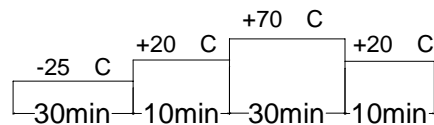
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3.Environment Test

- | | | |
|-----|------------------------|--------|
| 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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