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## Electret Condenser Microphone

Customer	
Customer P/O	
Customer Spec. No.	
Bestar Model Name	BCM9767P4.5-40
Product No.	1906010
Issue No.	BS/TEM01.062A
Issue Date	04/12/20

### Approval:

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

Prepared	Chec.	Appr.	Revision		
			No.	Date	Contents
			0		
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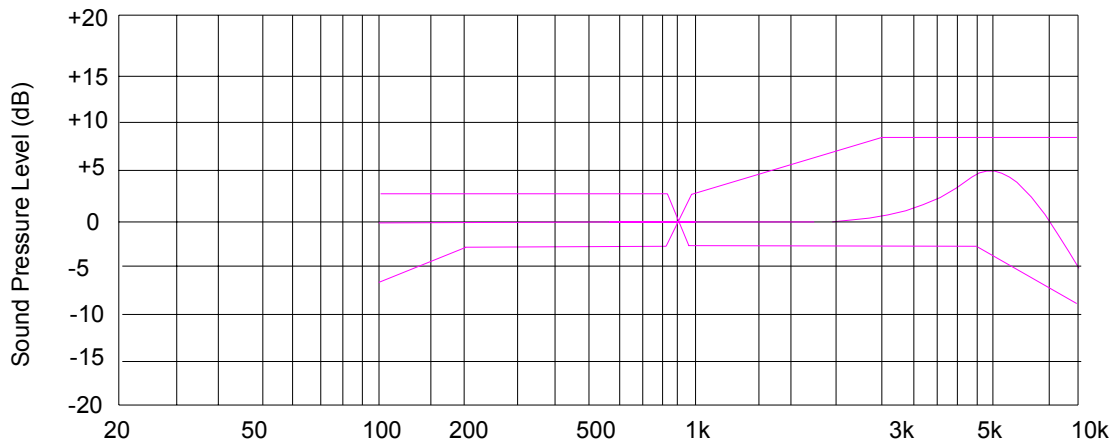
## BCM9767P4.5-40

### 1. Characteristics

Test Condition (Vs=4.5V RL=1.0KΩ Ta=20°C R.H.=50%)

No.	Item	Specifications
1	Sensitivity (dB)	-40± 3(0dB=1V/Pa,1kHz)
2	Output Impedance (Ω)	Max. 1000 at 1kHz
3	Current Consumption (mA)	0.5mA Max.
4	Voltage range (V)	1.1-10
5	S/N Ratio	60dB (A Curve)
6	Directivity	Omnidirectional
7	Decreasing voltage	-3dB
8	Weight	≤ 1.0g
9	Operating Temperature	-20~+60°C
10	Storage Temperature	-25~+70°C

### ★Frequency Resonse Curve



Operating Voltage : 1.1V to 10V

Max. SPL :120dB

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DATE

3rd angle  
projection

Microphone

APPR.

DATE



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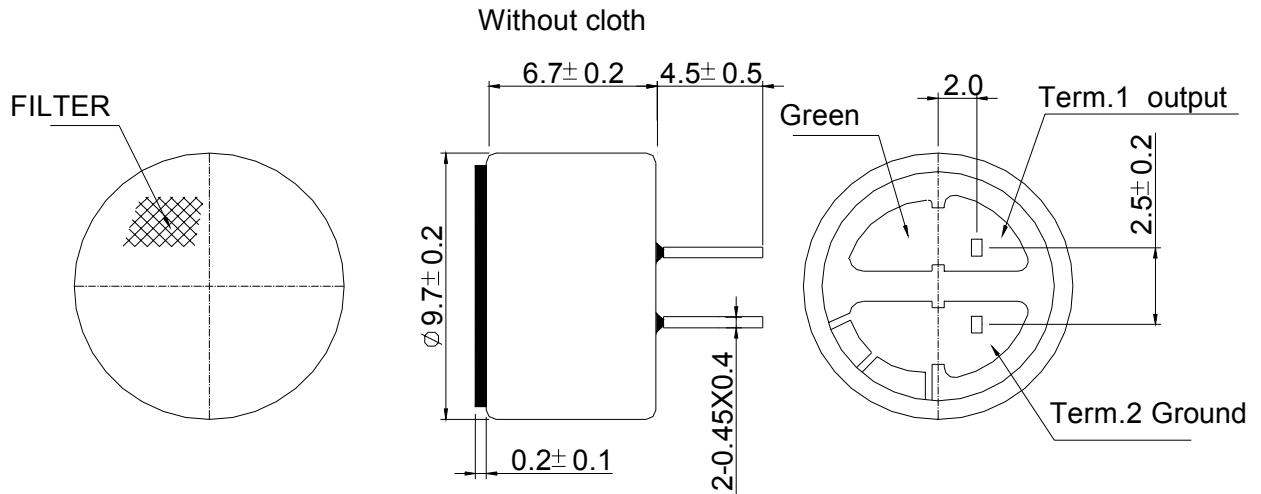
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DRG NO

BS/TEM01.062A

## BCM9767P4.5-40

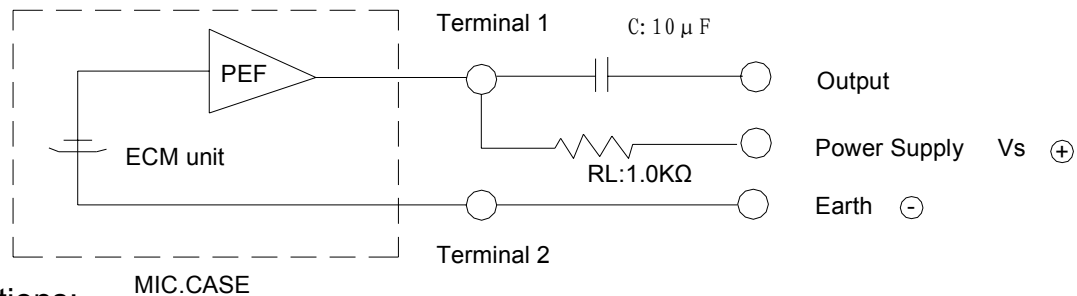
### 2.Appearance



#### 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 constant temperature soldering iron of more than 60W shall be applied.
2. The temperature of the working surface of the soldering copper shall be below 270 °C  
If customer confirm to use lead-free soldering, the soldering temperature is 300 °C  $\pm$  10 °C for 25  $\pm$  0.5 seconds.
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.

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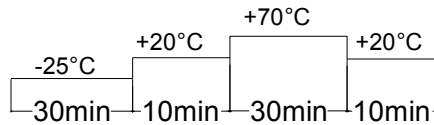
## BCM9767P4.5-40

### 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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