

Electret Condenser Microphone

Customer	
Customer P/O	
BeStar Model Name	BCM9765
Product No.	190500
Issue No.	BS/TEM01.001A
Issue Date	02/05/20

Approval :

- 1.Technical Terms
- 2.Appearance
- 3.Reliability Test



BESTAR ELECTRONICS INDUSTRY CO.,LTD
TianAn Industry Park4/F,Site B ChangZhou New District
Tel:86-519-5103228
Fax:86-519-5131010
E-Mail:wu@be-star.com
Http:www.be-star.com

Electret Condenser Microphone

Model:BCM9765

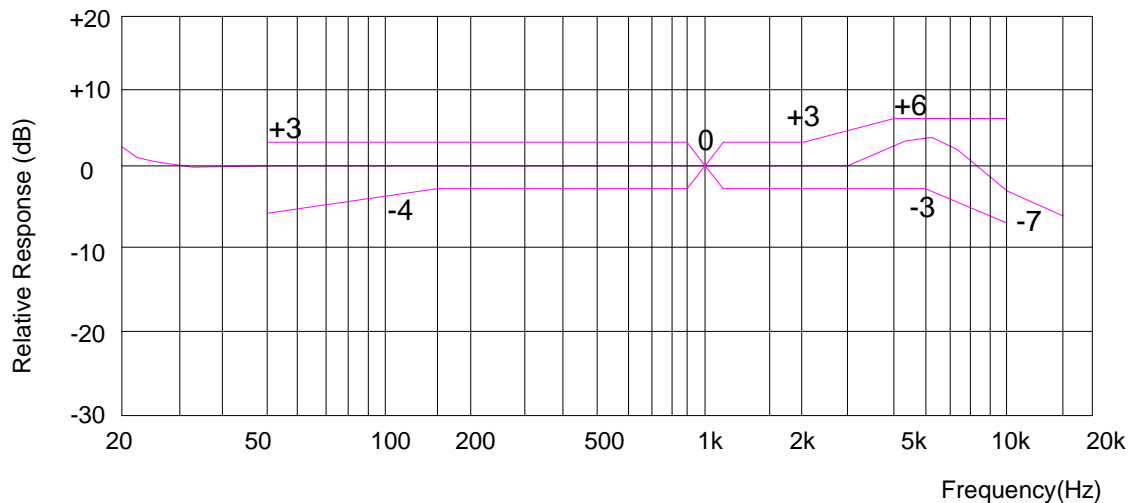
1. Technical Terms

1.1 Electrical Characteristics


Test Condition($V_s=6V$ $R_L=1K\Omega$ $T_a=20^\circ C$ $R.H=55\%$)

Item	Symbol	Condition	Minimum	Standard	Maximum	Unit
Sensitivity	S	$f=1kHz, P_{in}=1\mu bar$	-64	-62.5	-61	dB(0dB=1V/Pa)
Output Impedance	Zout	$f=1kHz$			1k	Kohm
Directivity	Omnidirectional					
Current Consumption	I				400	uA
S/N Ratio	S/N(A)	$f=1kHz, P_{in}=1\mu bar$ (A Curve)	40			dB
Decreasing	ΔS	$f=1kHz, V_s=4.5-1.5V$			-3	dB

1.2 Typical Frequency Response



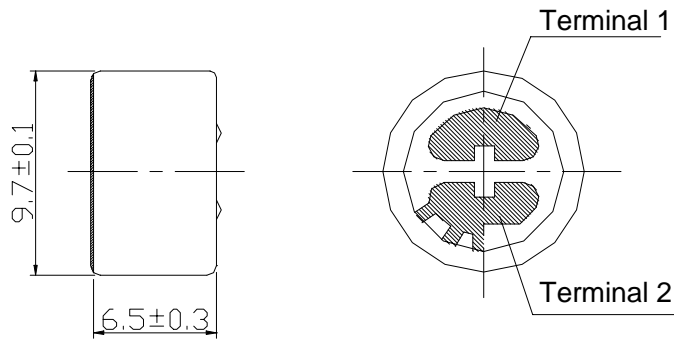
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 BESTAR ELECTRONICS INDUSTRY CO.,LTD TianAn Industry Park 4/F, Site B ChangZhou New District					

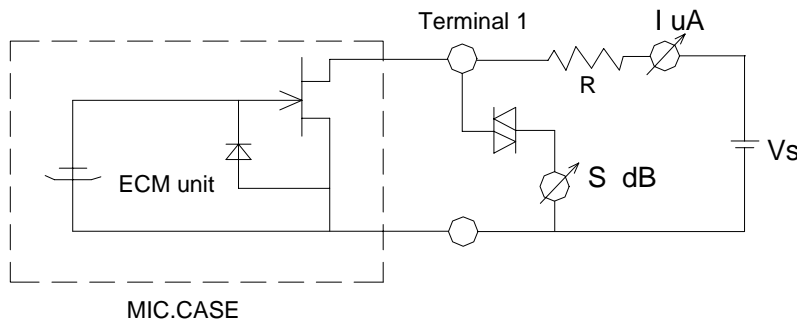
1.3 Mechanical Characteristics

Dimension	∅ 9.7X6.5(mm)(See appearance.)		
Weight	Less than 1g		
Soldering Heat Shock	To be no interference in operation after soldering heat shock. temperature 260° C ± 5° C for 5± 1 seconds.		
Terminal Mechanical Strength	To be no interference in operation after pulling the terminal with 1kg strength for 1 minutes		
Absolute Maximum Ratings	Operating Voltage	Vs (V)	10
	Storage Temperature Range	Tstg(° C)	-20~+70


2.Appearance




Specified Circuit:



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H	3. Reliability Test						H
G	Collision Test	After collided with the acceleration $100 \pm 10m/s$,at the vertical & horizontal directions for 1000 ± 10 times at the state of packing .Change of sensitivity within $\pm 3dB$ from initial.					G
F	Vibration Test	Vibration with 10Hz to 55Hz for 3 minutes each.full amplitude 2mm. for 30minutes at each of three axes. Change of sensitivity within $\pm 3dB$ from initial.					F
E	Drop Test	After drop from 0.8mm height to concrete floor. each one time for 5 surfaces at the state of packing. Change of sensitivity within $\pm 3dB$ from initial.					E
D	Humidity Test	After exposure at $60^{\circ}C \pm 2^{\circ}C$ and 90%-95% relative humidity or 200 hours. Change of sensitivity within $\pm 3dB$ from initial.(Measuring should be done after 2hours exposed to $20^{\circ}C \pm 2^{\circ}C$)					D
C	Temperature Test	<p>1),After exposure at $70^{\circ}C \pm 2^{\circ}C$ for 200 hours.Change of sensitivity within $\pm 3dB$ from initial. (Measuring should be done after 2 hours exposed to $20^{\circ}C \pm 2^{\circ}C$.)</p> <p>2),After exposure at $-25^{\circ}C \pm 2^{\circ}C$ for 200 hours. Change of sensitivity within $\pm 3dB$ from initial . (Measuring should be done after 2 hours exposed to $20^{\circ}C \pm 2^{\circ}C$.)</p>					C
B	Teperature Cycle Test	<p>After exposure at $-55^{\circ}C \pm 2^{\circ}C$ for 30 minutes, at $20^{\circ}C \pm 2^{\circ}C$ for 10 minutes. at $85^{\circ}C \pm 2^{\circ}C$ for 30 minutes. at $20^{\circ}C \pm 2^{\circ}C$ for 10 minutes, with 5 cycles. Change of sensitivity within $\pm 3dB$ from initial.</p> <p>(Measuring should be done after 2 hours exposed to $20^{\circ}C \pm 2^{\circ}C$.)</p>					B
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