

OBO Pro.2	SPECIFICATIONS	MODEL NO. OBO-54LP-0B-0D2
	PART NAME ELECTRET CONDENSER MICROPHONE	SHEET 1 OF 6

ALTERNATION HISTORY							
Marking	Date	ECN NO.	REV.	Description	Page	PREPARE BY	APPROVE BY
※1	SEP,02'05	0506008	B	Conformity RoHS Directive (2002/95/EC) Requests.	6		

REV.	DATE	PREPARED BY	CHECKED BY	APPROVED BY
B	SEP,02,2005	LULU		

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	PART NAME ELECTRET CONDENSER MICROPHONE	SHEET 2 OF 6

MODEL NO : OBO-54LP-0B-0D2

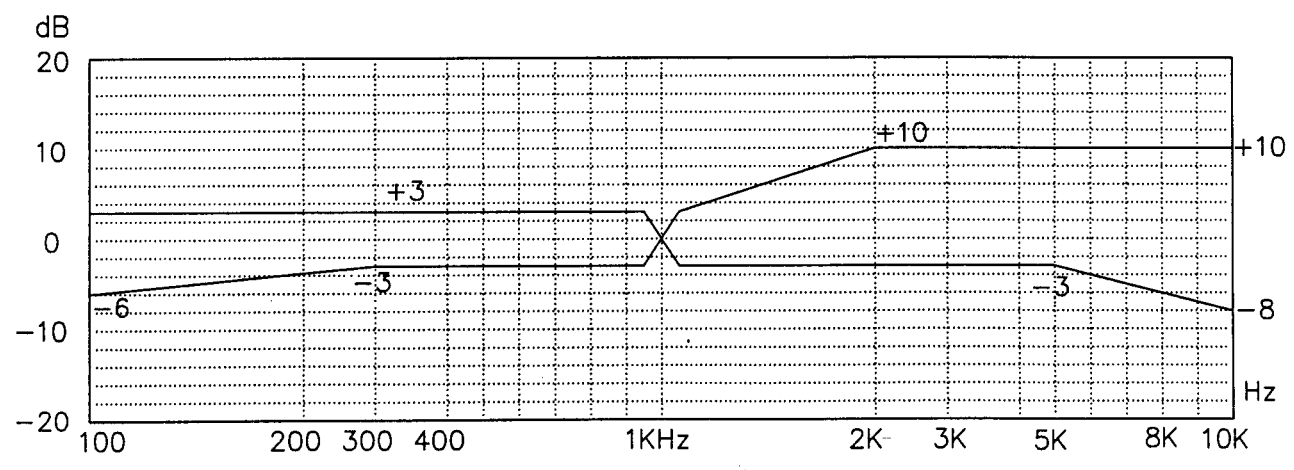
Features : Conformity RoHS Directive (2002/95/EC) Requests. ※1

1. ELECTRICAL CHARACTERISTICS

Test Condition : (Vs=1.5V,RL=3.0 KΩ,Ta=20±2°C,R.H.=65±5%)

Directivity : Omnidirectional							
No	Parameter	Symbol	Condition	Limit			Unit
				Min	Center	Max	
1.1	Sensitivity	S	F=1KHz,S.P.L.=1Pa 0dB=1V/Pa	-45	-42	-39	dB
1.2	Output Impedance	Zout	F=1KHz			3.0	KΩ
1.3	Current Consumption	I _o ss	VS=1.5V, RL=3.0KΩ			500	μA
1.4	Signal to Noise Ratio	S/N	S: (F=1KHz, S.P.L.=1Pa) N: (A-Weighted Curve)	58			dB
1.5	Decreasing Voltage	Δ S-VS	VS=3.0V to 1.5V			-3	dB

1.6 Typical Frequency Response Curve Limit

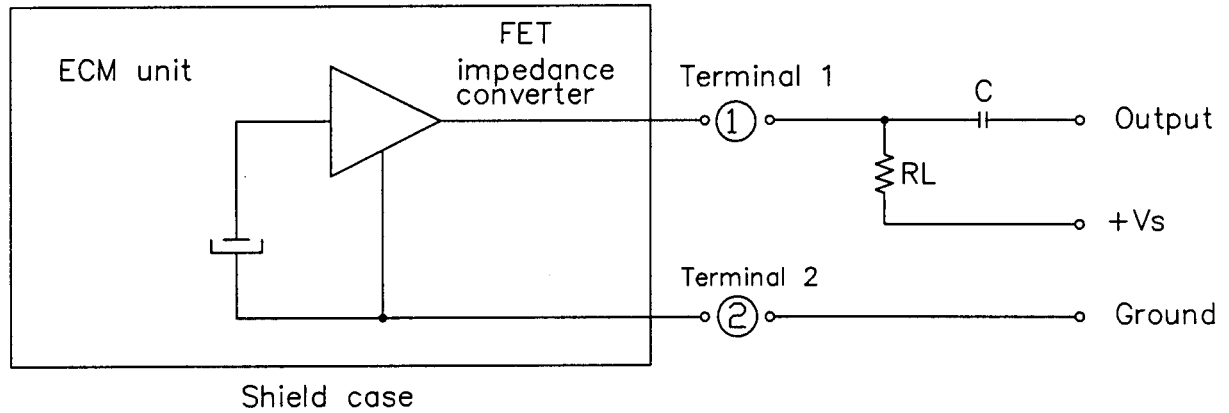


© Frequency : 50~16,000Hz

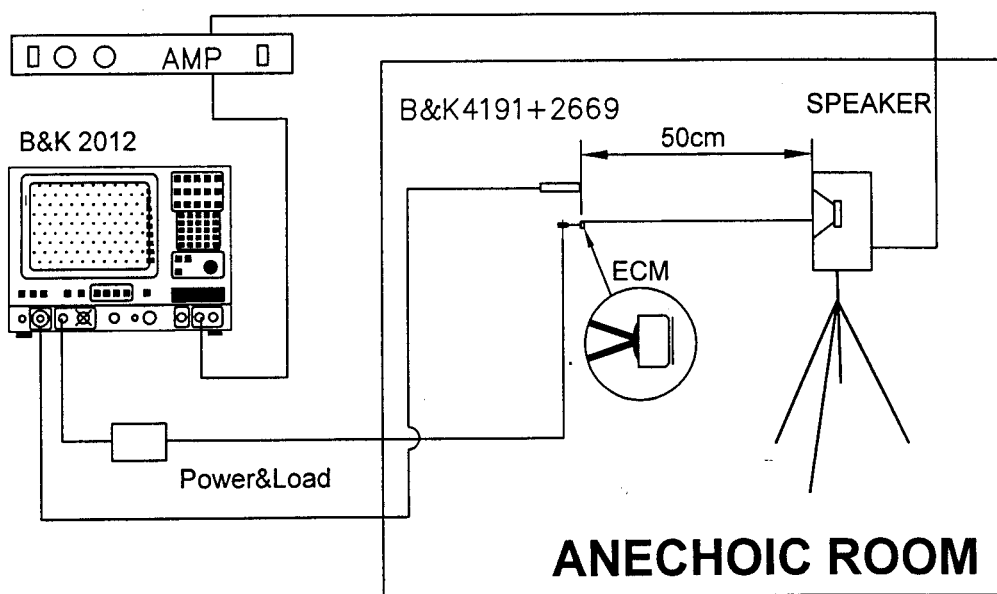
© Operating Voltage : 1.0V to 10V

OBO Pro.2	SPECIFICATIONS	MODEL NO. OBO-54LP-0B-0D2
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2. MEASUREMENT CIRCUIT



3. MEASUREMENT METHOD



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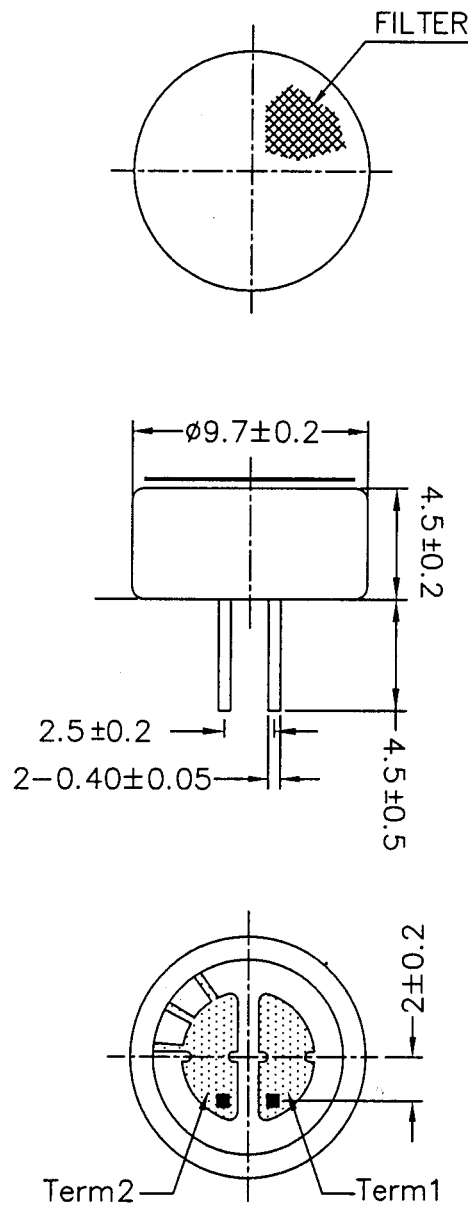
4.MECHANICAL CHARACTERISTICS

4.1 Soldering Standard : $280\pm 10^{\circ}\text{C}$ / Max. 2 seconds ※1

4.2 Weight : Appr.0.8g

4.3 Mechanical Layout and Dimensions :

Unit : mm



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5. TEMPERATURE CONDITIONS

5.1 Operating Temperature Range : $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$

5.2 Storage Temperature Range : $-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$

6. RELIABILITY TEST

Vibration Test	To be no interference in operation after vibrations, 10Hz to 55Hz for 1 minute full amplitude 1.5mm, for 2 hours at 3 axes.
Drop Test	The microphone unit without packaged must be subjected to each 3 drops at 3 axes, the height of 1 meter to 20 mm thick wooden board.
Temperature Test	(a) After exposure at 70°C for 72 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity. (b) After exposure at -25°C for 72 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity. (The measurement to be done after 6 hours of conditioning at 25°C .)
Humidity Test	After exposure at 60°C and $90 \pm 5\%$ relative humidity for 240 hours. sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity. (The measurement to be done after 6 hours of conditioning at 25°C .)
Temperature Cycle Test	After exposure at $+70^{\circ}\text{C}$ for 1 hr, from $+70^{\circ}\text{C}$ to $+25^{\circ}\text{C}$ for 0.5hr, at $+25^{\circ}\text{C}$ for 1hr, from $+25^{\circ}\text{C}$ to -20°C for 0.5hr, at -20°C for 1hr, from -20°C to $+25^{\circ}\text{C}$ for 0.5hr, at $+25^{\circ}\text{C}$ for 1hr, after 10 cycles, the sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity. (The measurement to be done after 6 hours of conditioning at 25°C .)

7. CONCEPT OF UNIT

The difference between concept of unit "Pascal" and the one of unit " μbar " can be explained as follows. In calibrating the sensitivity of ECMS, the sensitivity is manifested differently according as the unit is "Pascal" or " μbar ". That is the sensitivity will be increased by 20dB in the usage of unit "Pascal". Example : $-62\text{dB}(0\text{dB}=1\text{V}/\mu\text{bar}) = -42\text{dB}(0\text{dB}=1\text{V}/\text{Pa})$

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	PART NAME ELECTRET CONDENSER MICROPHONE	SHEET 6 OF 6

8. PACKAGING

