

PRODUCT SPECIFICATION

Doc: MB6013ABC-2

This specification applies to the electret condenser microphone outlined within this document.

Model Number: MB6013ABC-2

I. Electrical Characteristics Test Condition (Vs= 2.0 V, RL= 2.2 k ohm, Ta=20°C, RH=65%)

ITEM	SYMBOL TEST CONDITION		MINIMUM	STANDARD	MAXIMUM	UNITS
Sensitivity	S	f=1kHz, Pin=1Pa	-46	-44	-42	dB 0dB=1V/Pa
Impedance	Zout	f=1kHz, Pin=1Pa			2.2	kΩ
Directivity		OMNI-DIRECTIONAL		NAL		
Current Consumption	ı				0.5	mA
S/N Ratio	S/N (A)	f=1kHz, Pin=1Pa A Curve	60			dB
Sensitivity Reduction	ΔS	f=1kHz, Pin=1Pa Vs= 2.0 - 1.5			-3	dB
Frequency Range		2.0 1.0	100-10,000			Hz
	(Bb) +10 0 -10 -20 30	-3 -3 50 100 200 50 Freq	0 1000 200 uency (Hz)	-10 -10 0 5000 1000	00 20000	
Schematic Diagram of Circuit	ECM	T imperiance Capacitor 133	Term.1	C O Output		

II. Mechanical Characteristics

Dimensions	Ø 6 x	1.3 See Drawing	in Section IV		
Weight	Less than 0.2g				
Solderering Heat Shock	Not Applicable				
Terminal Mechanical Strength	Not Applicable				
Absolute Maximum Ratings	Operating Voltage	Storage Temperature Range	Operation Temperature Range		
	Vs (V)	Tstg °C	Tope °C		
	10	-25°C to +70°C	-25°C to +60°C		



Knowles Acoustics, 1151 MAPLEWOOD DRIVE, ITASCA, IL 60143 USA Americas [USA] +1-630-250-5930 Asia [Taiwan] +886-2-8919-1799

www.knowlesacoustics.com

Europe [England] +44 1444 87 2810 Japan [Tokyo] +81-3-3439-1151

Issued Date:

2004/2/18

Version: B



PRODUCT SPECIFICATION

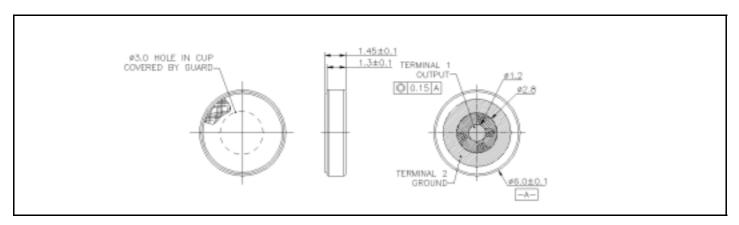
Doc: MB6013ABC-2

III. Reliability Tests

Note: After any of the following tests performed, the sensitivity of the microphone unit shall not deviate more than ±3dB from its initial value. The microphone shall maintain its initial operation and appearance. Measurements for tests with thermal requirements are to be done after 2hrs of condistioning at 20°C.

Vibration Test	The microphone to have no interferance in operation after vibrations, 10Hz to 55Hz for 1minute full amplitude 1.52mm, for 2 hours at three axises.		
Drop Test	The microphone unit must operate when dropped three times once on each axis from a height of 1.5m onto a metal plate.		
Temperature Test	High	The microphone unit must operate within its sensitivity specifications after subjected to the following conditions: +70°C for 240 hrs, and exposed to room temperature for 2 hrs.1	
	Low	The microphone unit must operate within its sensitivity specifications after subjected to the following conditions: -25°C for 240 hrs, and exposed to room temperature for 2 hrs.	
Humidity Test	+60°C at 95%RH for 200 hrs		
Temperature Cycle Test	After exposure at -25°C for 30 minutes, at +20°C for 10 minutes, at +60°C for 30 minutes, at +20°C for 10 minutes, 5 cycles. (The measurements to be done after 2hrs of conditioning at +20°C)		

IV. Dimensional Drawing



V. Other

Better Shielded, RF noise resistant type.

The information contained in this literature is based on our experience to date and is believed to be reliable and it is subject to change without notice. It is intended as a guide for use by persons having technical skill at their own discretion and risk. We do not guarantee favorable results or assume any liability in connection with its use. Dimensions contained herein are for reference purposes only. For specific dimensional requirements consult factory. This publication is not to be taken as a license to operate under, or recommendation to infringe any existing patents. This supersedes and voids all previous literature.



Knowles Acoustics, 1151 MAPLEWOOD DRIVE, ITASCA, IL 60143 USA Americas (USA) +1-630-250-5930 Asia (Taiwan) +886-2-8919-1799 Europe (England) +44 1444 87 2810 Japan (Tokyo) +81-3-3439-1151 www.knowlesacoustics.com

Issued Date: 2004/2/18 Version: B