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[MB6027ASC-1L](#)

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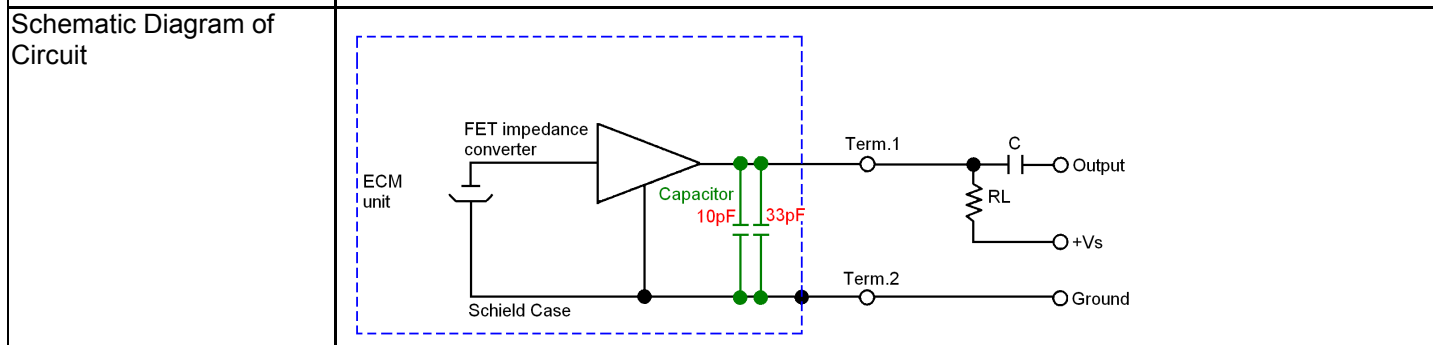
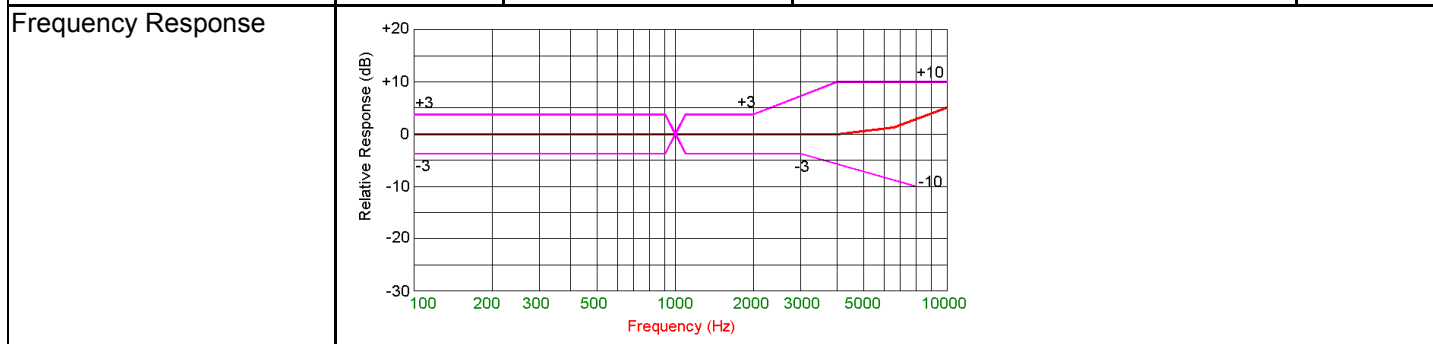
sales@integrated-circuit.com

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

Model Number: **MB6027ASC-1L**

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	-45	-42	-39	dB 0dB=1V/Pa
Impedance	Zout	f=1kHz, Pin=1Pa			2.2	kΩ
Directivity			OMNI-DIRECTIONAL			
Current Consumption	I				0.5	mA
S/N Ratio	S/N (A)	f=1kHz, Pin=1Pa A Curve	60			dB
Sensitivity Reduction	Δ S	f=1kHz, Pin=1Pa Vs= 2.0 - 1.5			-3	dB
Frequency Range			100-10,000			Hz



II. Mechanical Characteristics

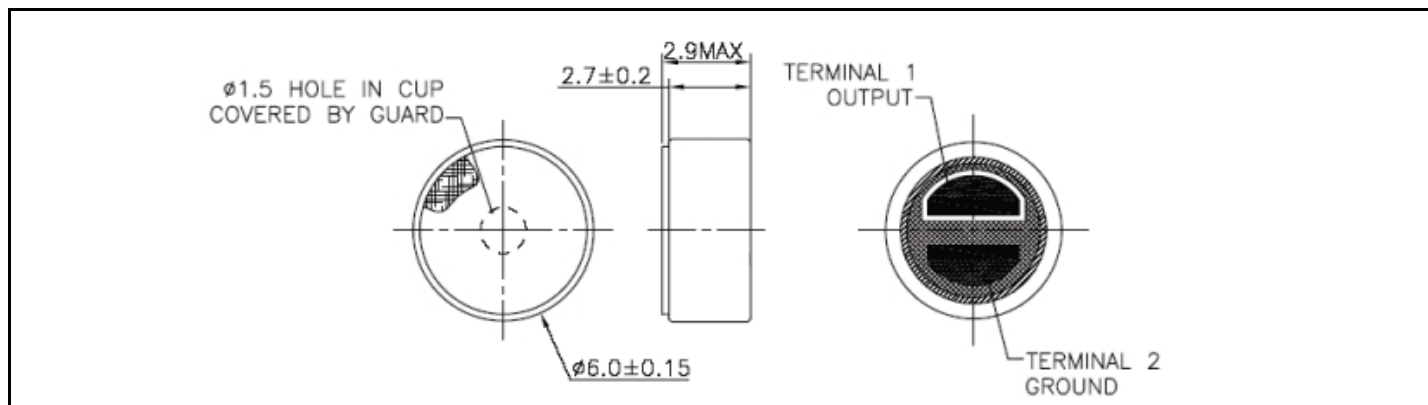
Dimensions	Ø 6 x 2.7	See Drawing in Section IV		
Weight	Less than 0.2g			
Soldering Heat Shock	To be no interference in operation after soldering temperature exposure at 330°C +/-10°C for 2 +/- 0.5 seconds.			
Terminal Mechanical Strength	To be no interference in operation after pulling terminal 0.5kg force for 1 minute			
Absolute Maximum Ratings	Operating Voltage	Storage Temperature Range	Operation Temperature Range	
	Vs (V)	Tstg °C	Tope °C	
	10	-40°C to +85°C	-30°C to +70°C	

III. Reliability Tests

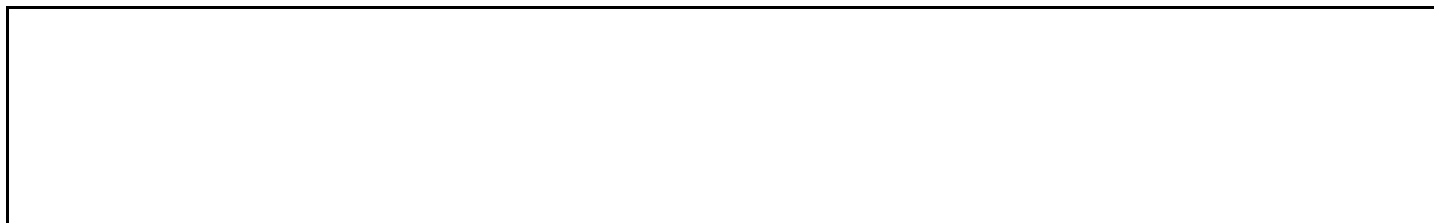
Note: After any of the following tests performed, the sensitivity of the microphone unit shall not deviate more than $\pm 3\text{dB}$ from its initial value. The microphone shall maintain its initial operation and appearance. Measurements for tests with thermal requirements are to be done after 2hrs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

Vibration Test	The microphone to have no interference in operation after vibrations, 10Hz to 55Hz for 1minute full amplitude 1.52mm, for 2 hours at three axes.	
Drop Test	The microphone unit must operate when dropped three times once on each axis from a height of 1m onto a metal plate.	
Temperature Test	High	he microphone unit must operate within its sensitivity specifications after subjected to the following conditions: $+85^{\circ}\text{C}$ for 240 hrs, and exposed to room temperature for 2 hrs.
	Low	The microphone unit must operate within its sensitivity specifications after subjected to the following conditions: -40°C for 240 hrs, and exposed to room temperature for 2 hrs.
Humidity Test	$+60^{\circ}\text{C}$ at 95%RH for 240 hrs	
Temperature Cycle Test	After exposure at -40°C for 45 minutes, at $+20^{\circ}\text{C}$ for 10 minutes, at $+85^{\circ}\text{C}$ for 45 minutes, at $+20^{\circ}\text{C}$ for 10 minutes, 27 cycles. (The measurement to be done after 2 hrs of conditioning at $+20^{\circ}\text{C}$.)	

IV. Dimensional Drawing



V. Other



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