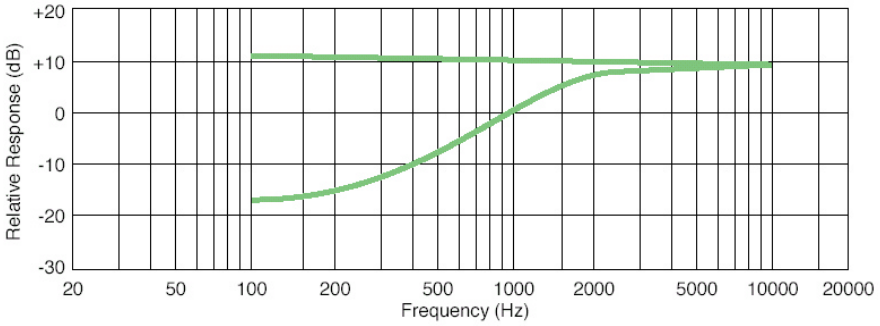
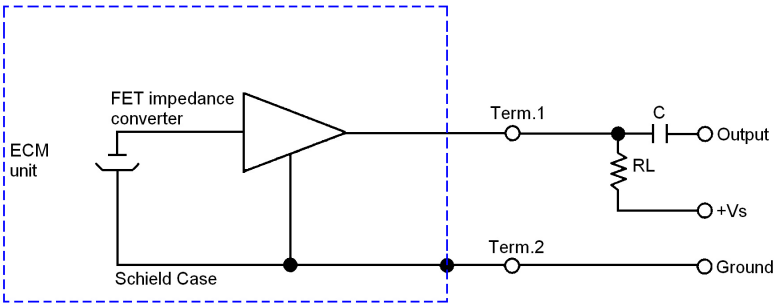
This specification applies to the electret condenser microphone outlined within this document.

Model Number: **MD9752NSZ-1**

I. Electrical Characteristics Test Condition (Vs= 3.0 V, RL= 2.200 K ohm, Ta=20°C, RH=65%)

ITEM	SYMBOL	TEST CONDITION	MINIMUM	STANDARD	MAXIMUM	UNITS
Sensitivity	S	f=1kHz, Pin=1Pa	-43	-40	-37	dB 0dB=1V/Pa
Impedance	Zout	f=1kHz, Pin=1Pa			2.2	kΩ
Directivity			NOISE CANCELLING			
Current Consumption	I				0.5	mA
S/N Ratio	S/N (A)	f=1kHz, Pin=1Pa A Curve	55			dB
Sensitivity Reduction	ΔS	f=1kHz, Pin=1Pa Vs= 3.0 - 1.5			-3	dB
Frequency Range			100-10,000			Hz
Frequency Plot						
Schematic Diagram of Circuit						

II. Mechanical Characteristics

Dimensions	∅ 9.7 x 5.2	See Drawing in Section IV
Weight	Less than 0.8 g	
Solderering Heat Shock	To be no interferance in operation after soldering temperature exposure at 260°C +/-5°C for 2 +/- 0.5 second.	
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	-25°C to +60°C	-25°C to +55°C

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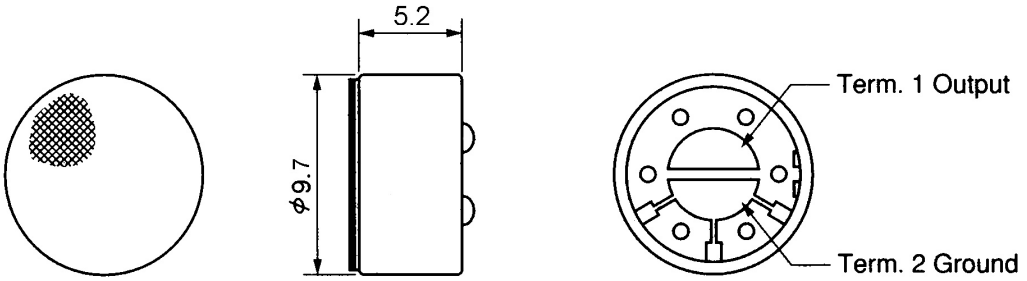
III. Reliability Tests

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 1m onto a metal plate.	
Temperature Test	High	The microphone unit must operate within its sensitivity specifications after subjected to the following conditions: +60°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: -25°C for 240 hrs, and exposed to room temperature for 2 hrs.
Humidity Test	+40°C at 95%RH for 240 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

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.

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