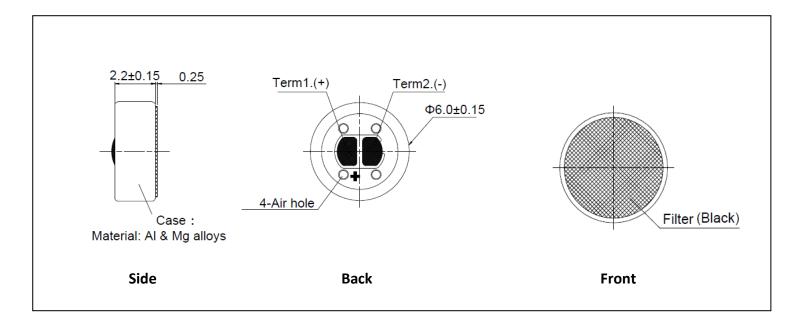


Specification Part Number: TM141036

Description: Uni-Directional (Cardioid) Electret Condenser Microphone

(Size: 6.0mm x 2.2mm)

RoHS Compliant



Revision	Date	Comments
A	May 26, 2017	Initial Release

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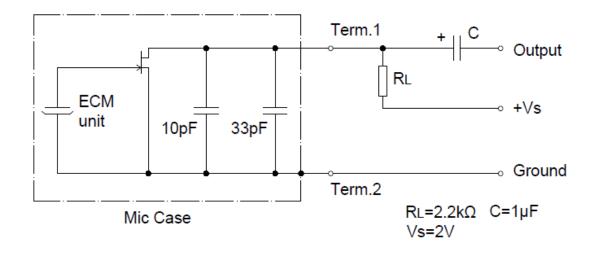
1. ELECTRICAL SPECIFICATIONS

Standard Conditions		Basic Test Conditions	
Temperature	5 to 35°C	Temperature	20 ± 2°C
Humidity	45 to 85%	Humidity	63 to 67%
Air Pressure	86 to 106kPa	Air Pressure	86 to 106kPa

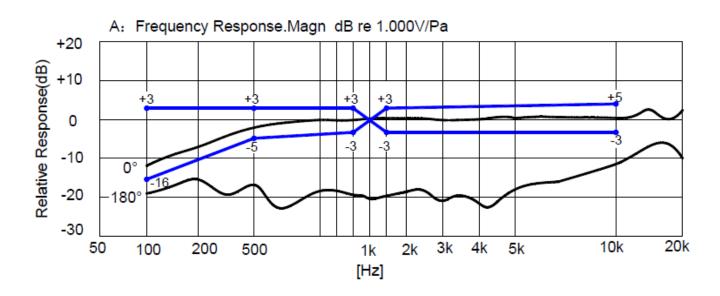
			T
	Parameter	SPEC	Unit
	Directional Characteristic	Uni-directional	dB
	Sensitivity	-40±3	dB
	Impedance	2.2(Max)	kΩ
S/	N Ratio (A weighted network)	60(Min)	dB
Maxir	num Input Sound Pressure Level	100(Max) THD≤3%	dB
Standard Operating Voltage		2.0	Vdc
	Operating Voltage Range	1.0~10	Vdc
Decrease Voltage Characteristics(Vs=2.0 to 1.5V dc)		-3(Max)	dB
Current Consumption		500(Max)	μA
Standard Test Circuit		See Fig. 1	_
Frequency Response Characteristic		See Fig. 2	-
Memo	Standard test condition RL=2.2kΩ, Vs=2.0V dc (@f=1kHz, Pin=1Pa, 0dB=1V/pa, L=50cm)		

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2. STANDARD TEST CIRCUIT



3. TYPICAL FREQUENCY RESPONSE IN ANECHOIC CHAMBER



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4. RELIABILITY

	ltem	Test conditions	Evaluation standard
1	Hi-Temp.Test	The microphone unit must be subjected to +85℃ for 200 hours and exposed to room temperature for 3 hours.	
2	Low-Temp.Test	The microphone unit must be subjected to -40℃ for 240 hours and exposed to room temperature for 3 hours.	
3	Humidity &Heat Test	The microphone unit must be subjected to +50℃, 90% RH-for 200 hours and exposed to room temp for 3 hours.	
4	Thermal Shock Test	The microphone unit must be subjected to following condition [+85 $^{\circ}$ C 1H \rightarrow room temp 1H \rightarrow -40 $^{\circ}$ C 1H \rightarrow room temp 1H]at 5cycle.	
5	Vibration Test	The microphone unit must be subjected to a procedure that it is vibrating for two hours from each of the two directions(x y) with a frequency of 10-55Hz and a 1.52mm-high amplitude.	After any of the tests, the sensitivity of the microphone unit shall not change more than ± 3 dB from initial value and shall keep its initial operation and appearance.
6	Drop Test	The microphone unit must be subjected to a procedure that it is dropped on a slippery marble floor for 5 times from a 1.0-meter- height without package.	
7	Storage Temperature	-40℃~+75℃ R.H .less than 90%	
8	Operating Temperature	-40℃~+75℃ R.H. less than 90%	
9	ESD Protection	The test microphone must be discharged between each ESD exposure without ground(contact:±6KV,air:±8KV)	

NOTES:

All the soldering procedures upon microphones must be completed in a heat sink device. The temperature of the soldering iron must be limited to 340°C±20°C and the soldering time should not exceed 3 seconds.

Operators, the soldering fixture and the soldering iron must be statically grounded under each soldering process.

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