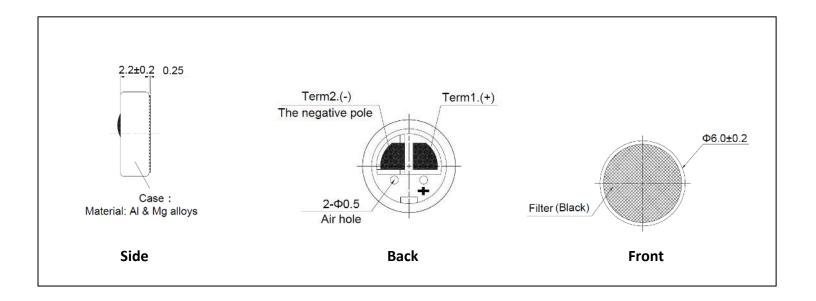


Specification Part Number: TM141042

<u>Description: Bi-Directional (Noise Cancelling) Electret Condenser Microphone</u> (Size 6.0mm x 2.2mm) RoHS Compliant



Revision	Date	Comments
A	April, 24, 2018	Initial Release



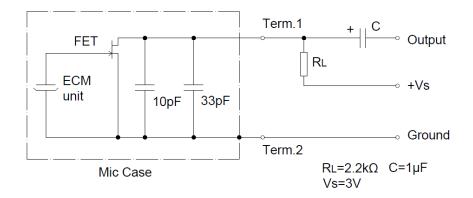
1. ELECTRICAL SPECIFICATIONS

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

			1
	Parameter	SPEC	Unit
	Directional Characteristic	Noise Cancelling	_
	Sensitivity	-45±2	dB
	Impedance	12.21(Max)	kΩ
S/N Ratio (A weighted network)		55(Min)	dB
Maxir	num Input Sound Pressure Level	110 THD≤3%	dB
Standard Operating Voltage		3.0	Vdc
Operating Voltage Range		1.0~10	Vdc
Decrease Voltage Characteristics (Vs=2.0 to 1.5V dc)		-3(Max)	dB
Current Consumption		210-350	μΑ
Standard Test Circuit		See Fig. 1	_
Frequency Response Characteristic		See Fig. 2	_
Memo Standard test condition RL=2.2kΩ, Vs=3 .(@f=1kHz, Pin=1Pa, 0c L=50cm)			



2. STANDARD TEST CIRCUIT



3. TYPICAL FREQUENCY RESPONSE IN ANECHOIC CHAMBER





4. RELIABILITY

Item		Test conditions	Evaluation standard
1	Hi-Temp.Test	The microphone unit must be subjected to +80℃ for 100 hours and exposed to room temperature for 3 hours.	
2	Low-Temp.Test	The microphone unit must be subjected to -40℃ for 100 hours and exposed to room temperature for 3 hours.	
3	Humidity &Heat Test	The microphone unit must be subjected to +55℃, 85% RH-for 100 hours and exposed to room temp for 3 hours.	
4	Thermal Shock Test	The microphone unit must be subjected to following condition [+80°C 0.5H → room temp 1H→ -40°C 0.5H → room temp 1H]at 10 cycles and exposed to room temp for 3	After any of the tests, the sensitivity of the microphone unit shall not change more than $\pm 3 \text{dB}$ from initial value and
5	Vibration Test	The microphone unit must be subjected to a procedure that it is vibrating for two hours from each of the three directions(x y z) with a frequency of 10-55Hz and a 1.52mm-high amplitude.	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	-30℃~+60℃	
8	Operating Temperature	30℃~+60℃	

All the soldering procedures upon microphones must be completed in a heat sink device. The temperature of the soldering iron must be limited to 360°C±10°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.