

ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number: MD6052USZ-1

Manufacturer: Knowles

Package: Bulk

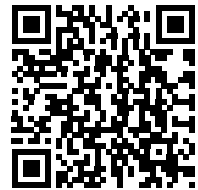
Availability: Please confirm with sales

Product Page:

<https://antrexco.com/product/details/knowles/md6052usz-1.html>

Request a Quote:

[Submit RFQ for this part](#)



Scan for product page

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Quality & Trust

New & Original Components

Supplier verification and packaging condition review

CoC / RoHS / REACH documents available on request

Secure sourcing support for OEM / EMS projects

Note:

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.

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

Model Number: **MD6052USZ-1**

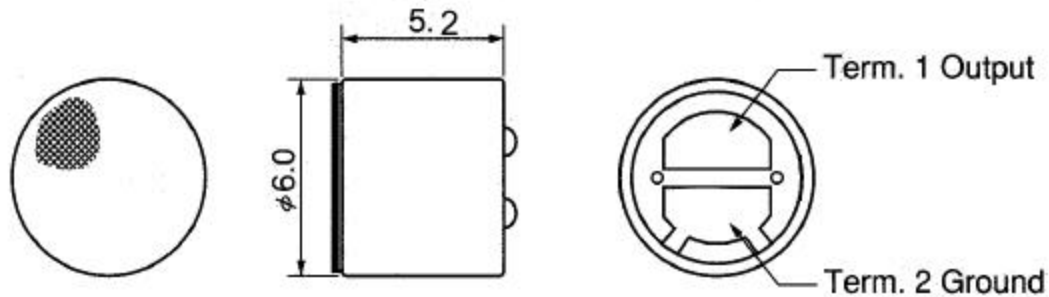
Size: Ø 6.0 x 5.2

Directivity: UNIIDIRECTIONAL

Board Type: SOLDER

Capacitor(s) NONE

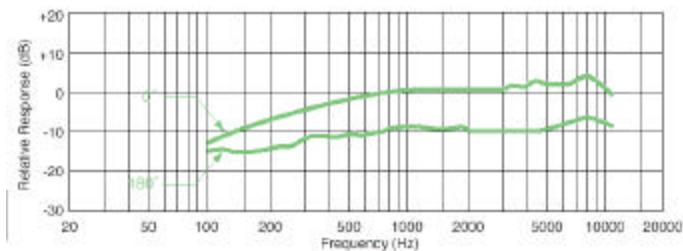
Dimensions: (All dimensions are in mm)



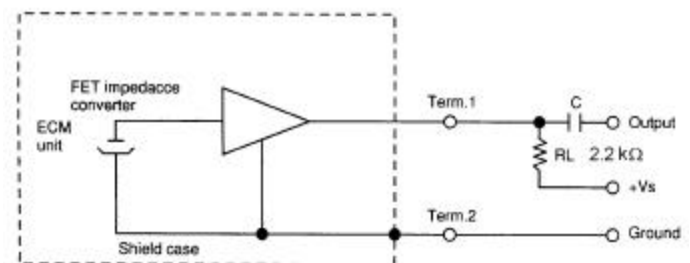
Electrical Specifications

CHARACTERISTIC	SPECIFICATION VALUES	NOTES
Directional Characteristic	UNIIDIRECTIONAL	
Electret Type	CHRG DIA/FOIL	
Sensitivity	-42 dB $\pm$ 3.0	(0dB=1 V/Pa, 1kHz)
Impedance	2,200 k Ω	Less than
Frequency Range	100-10,000 Hz	Hz
Max input Sound Level	120dB	S.P.L.
Standard Operating Voltage	2.0 V	V
Maximum operating Voltage	10 V	V
Current Consumption	0.500 mA	Max
Sensitivity Reduction	Within -3dB at 1.5V	
S/N Ratio	More than 55 dB	
Capacitor(s)	NONE	

Frequency Response Curve

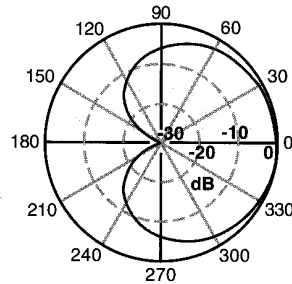


Schematic Diagram



Polar Pattern:

Polar plot shows response of unit at 1000 Hz.



Environmental Specifications

Note: After any of the following tests performed, the sensitivity of the microphone unit shall not deviate more than ± 3 dB from its initial value. The microphone shall maintain its initial operation and appearance.

Operating Temperature:	-25°C to +55°C
Storage Temperature:	-25°C to +60°C
Humidity:	+40°C at 95%RH for 240 hrs
Temperature Cycles:	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 measurement to be done after 2 hrs of conditioning at +20°C.)
Low Temperature:	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.
High Temperature:	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.
ESD:	10kV
Vibration:	The microphone to have no interference in operation after vibrations, 10Hz to 55Hz for 1 minute full amplitude 1.52mm, for 2 hours at three axes.
Impact:	The microphone unit must operate when dropped three times once on each axis from a height of 1m onto a metal plate.
Solder Pull:	0.5kg each Pad

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