

PRODUCT SPECIFICATION

Doc: MB6052ASC-1

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

Model Number: MB6052ASC-1

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 | | | OM | INI-DIRECTIO | NAL | | |
| Current Consumption | I | | | | 0.5 | mA | |
| S/N Ratio | S/N (A) | f=1kHz, Pin=1Pa A Curve | 60 | | | dB | |
| Sensitivity Reduction | ΔS | f=1kHz, Pin=1Pa Vs= 2.0 - 1.5 | | | -3 | dB | |
| Frequency Range | | 2.0 | | 100-10,000 | | Hz | |
| | 115 | | | | | | |
| Schematic Diagram of Circuit | ECM I | Capacitor 10pF 33 | Term.1 | C Output | | | |

II. Mechanical Characteristics

| Dimensions | Ø 6 x 5 | 5.2 | See Drawing in | n Section IV | | |
|------------------------------|---|------|----------------------|--------------------------------|--|--|
| Weight | Less than 0.5g | | | | | |
| Solderering Heat Shock | To be no interferance in operation after soldering temperature exposure at 260°C +/-5°C for 2 +/- 0.5 seconds. | | | | | |
| Terminal Mechanical Strength | The soldering time must be less than 2 seconds each pad, and soldering pull must be larger than 0.5Kg each pad. | | | | | |
| Absolute Maximum Ratings | Operating Voltage | | Temperature Range | Operation Temperature Range | | |
| | Vs (V) | | Tstg °C | Tope °C | | |
| | 10 | -25° | C to +70°C | -10°C to +60°C | | |



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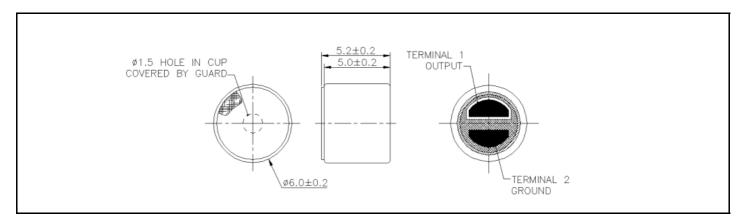
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III. Reliability Tests

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 1 minute 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: +70°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 -55°C for 30 minutes, at+20°C for 10 minutes, at +85°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.) | | |

IV. Dimensional Drawing



V. Other

Better Shielded, RF noise resistant type.

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