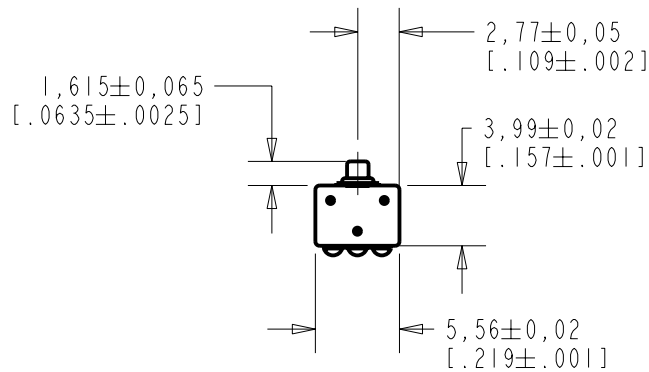


EA-23178-078

SHT 1.1

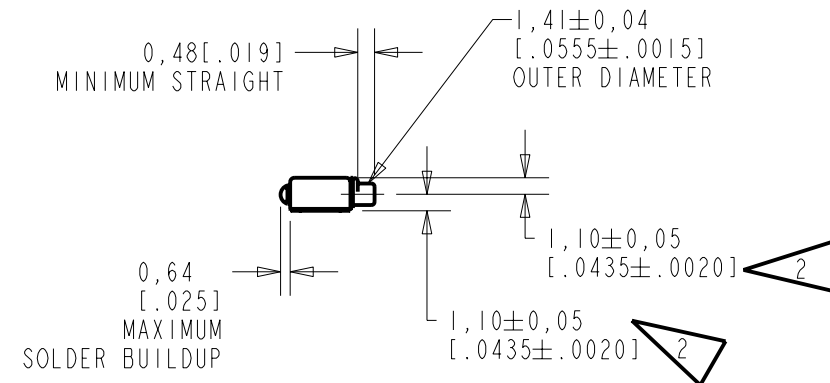
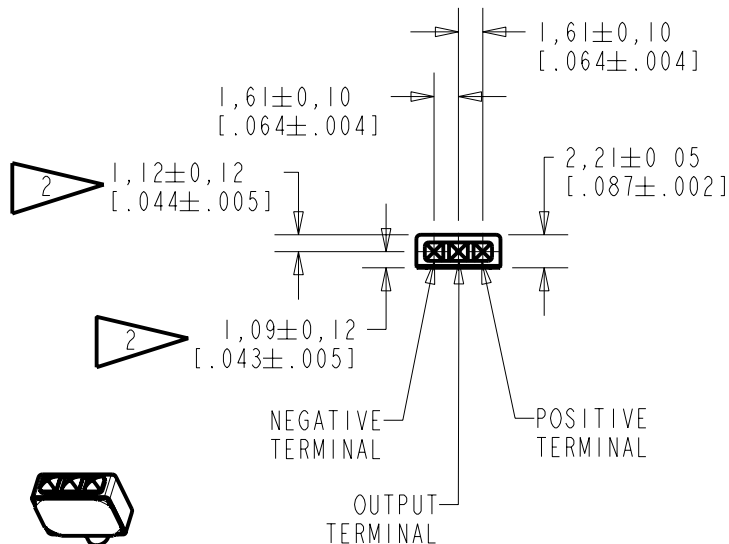


NOTE:

1. INCREASED PRESSURE AT THE SOUND INLET CAUSES A POSITIVE GOING VOLTAGE TO APPEAR AT THE OUTPUT TERMINAL, RELATIVE TO THE NEGATIVE TERMINAL.



2. LOCATED FROM TWO SURFACES FOR CUSTOMER CONVENIENCE. ONLY APPLICABLE FROM ONE SURFACE, NOT TO BE USED TOGETHER. HORIZONTAL LOCATION FOR TERMINAL CENTERED TO ±0,17 [.007].



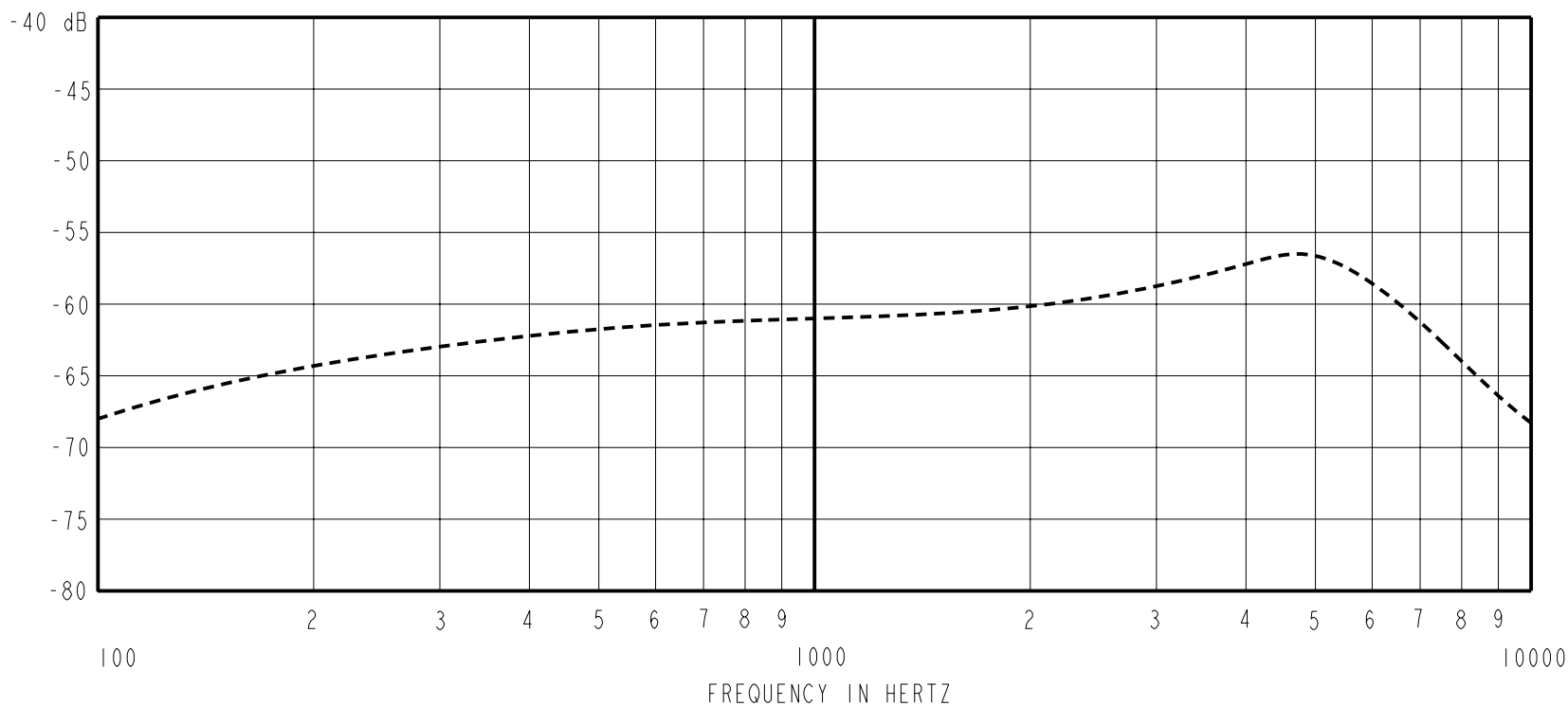
NOMINAL WEIGHT  
.13 GRAM

DIMENSIONS IN MILLIMETERS [INCHES]

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| Revision             | C.O. #    | Implementation Date | RELEASE LEVEL | REVISION       |
|----------------------|-----------|---------------------|---------------|----------------|
| A                    | MI0101333 | 12-14-06            | Released      | A              |
| SCALE: 2:1           |           |                     | DR. BY: LSY   | DATE: 12-14-06 |
| DO NOT SCALE DRAWING |           |                     | CK. BY: GJP   | DATE: 12-21-06 |
| TITLE: MICROPHONE    |           | EA-23178-078        | APP. BY: GJP  | DATE: 12-21-06 |
| OUTLINE DRAWING      |           | SHT 1.1             |               |                |

SENSITIVITY IN dB RELATIVE TO 1.0 VOLT/0.1 Pa (N/M<sup>2</sup>)  
FOR CONDITIONS SHOWN BELOW.



| FREQUENCY | SENSITIVITY |       |       | DEVICE CONFORMITY            |      |
|-----------|-------------|-------|-------|------------------------------|------|
|           | MIN.        | NOM.  | MAX.  | RANGE OF DEVIATION FROM 1KHz |      |
| 100       | ---         | -68.0 | ---   | -11.0                        | -4.0 |
| 1000      | -64.0       | -61.0 | -58.0 | 0.0                          | 0.0  |
| ≈ 4800    | ---         | -56.5 | ---   | +1.5                         | +7.5 |

NOTES:

1. CASE CONNECTED TO NEGATIVE TERMINAL.
2. MICROPHONE TO BE FUNCTIONAL WITH 10 VDC SUPPLY.
3. CONFORMS TO REQUIREMENTS SHOWN ON 'ELECTRET MICROPHONE ENVIRONMENTAL QUALIFICATION TEST, SHEET 2.2'.

| PORT LOCATION | DC SUPPLY | AMPLIFIER CURRENT DRAIN | SENSITIVITY CHANGE ON REDUCING SUPPLY TO 0.9VDC | "A" WEIGHTED NOISE (1 kHz EQUIV. SPL) | OUTPUT IMPEDANCE OHMS |      |      | CAPACITANCE ±50% |     |
|---------------|-----------|-------------------------|---|---------------------------------------|-----------------------|------|------|------------------|-----|
|               |           |                         |   |                                       | MIN.                  | NOM. | MAX. | 1-2              | 1-3 |
| 12S           | 1.3V      | 50 uA MAX.              | 3 dB MAX.                                       | 28.5 dB MAX.                          | 2000                  | 3500 | 6000 | NA               | NA  |

| Revision | C.O. #    | Implementation Date | RELEASE LEVEL | REVISION |
|----------|-----------|---------------------|---------------|----------|
| A        | M10101333 | 12-14-06            | Released      | A        |

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WHEN TEST LIMITS ARE USED TO ESTABLISH INCOMING INSPECTION ACCEPTANCE/REJECTION CRITERIA, CORRELATION OF TEST EQUIPMENT WITH KNOWLES IS ALSO REQUIRED FOR ELIMINATION OF EQUIPMENT AND TEST METHOD VARIATION

TITLE: **MICROPHONE** **EA-23178-078**  
PERFORMANCE SPECIFICATION **SHT 2.1**

| DR. BY  | DATE     |
|---------|----------|
| LSY     | 12-14-06 |
| CK. BY  | DATE     |
| GJP     | 12-21-06 |
| APP. BY | DATE     |
| GJP     | 12-21-06 |