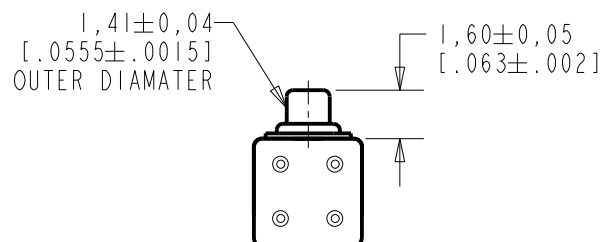
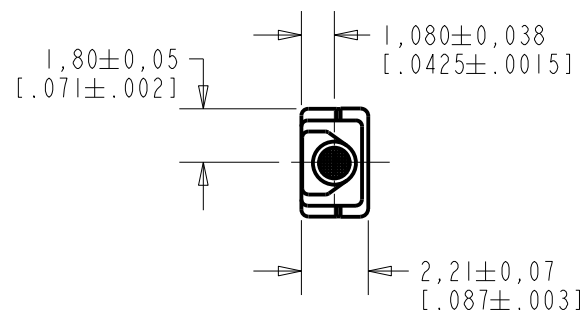


# EM-24446-G10

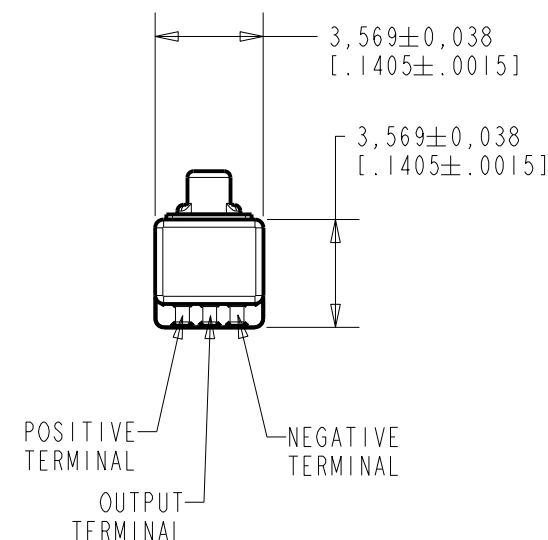
## SHT 1.1

NOTE:

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



2,77±0,03  
[0,109±0,001]

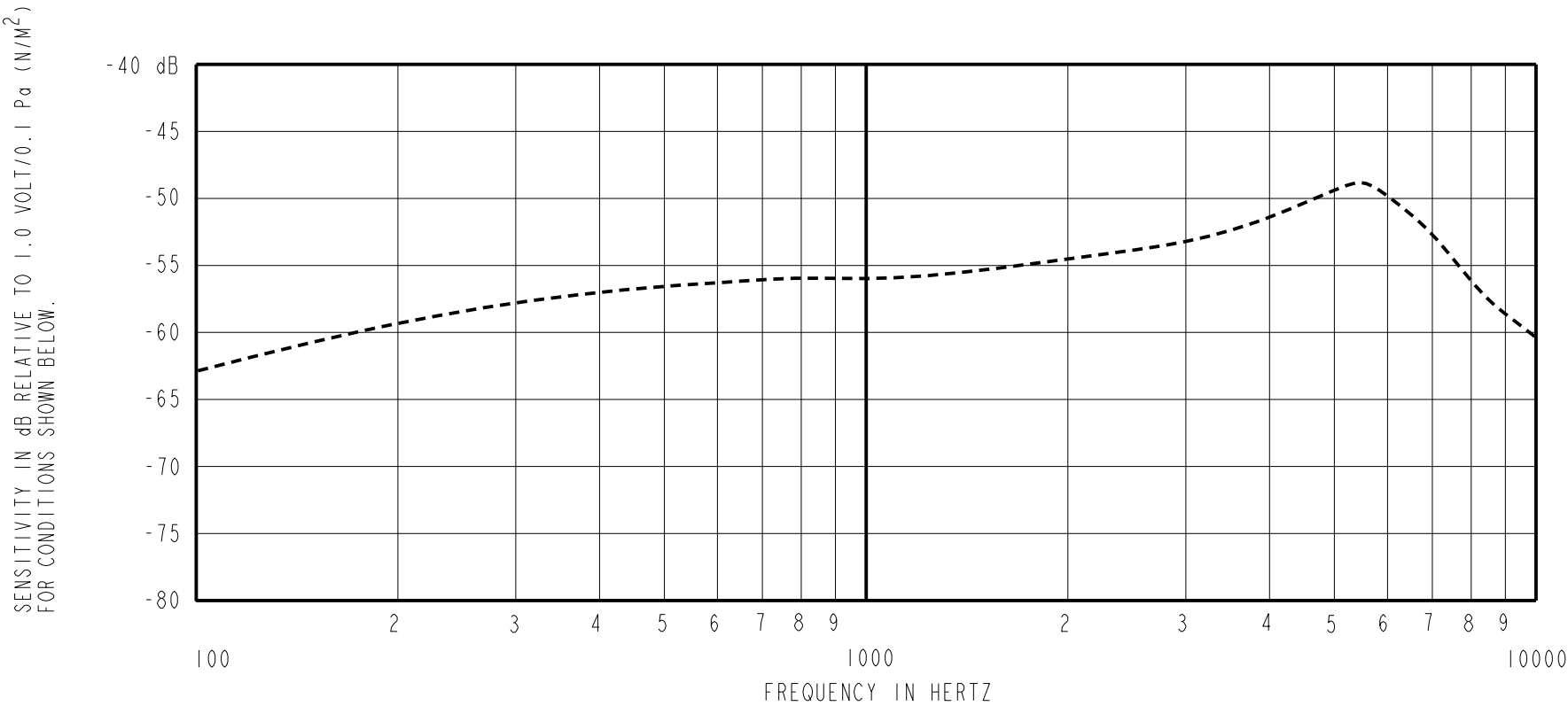


NOMINAL WEIGHT  
.08 GRAMS

DIMENSIONS IN MILLIMETERS [INCHES]

**KNOWLES ELECTRONICS**  
ITASCA, ILLINOIS U.S.A.

| Revision             | C.O. #    | Implementation Date | RELEASE LEVEL | REVISION |
|----------------------|-----------|---------------------|---------------|----------|
| E                    | MI0104543 | 3-14-12             | Active        | E        |
| D                    | MI0104420 | 12-22-11            |               |          |
| SCALE: 4:1           |           |                     | DR. BY        | DATE     |
| DO NOT SCALE DRAWING |           |                     | AB            | 10-4-05  |
| TITLE: MICROPHONE    |           |                     | CK. BY        | DATE     |
| OUTLINE DRAWING      |           |                     | GJP           | 10-4-05  |
| EM-24446-G10         |           |                     | APP. BY       | DATE     |
| SHT 1.1              |           |                     | GJP           | 10-4-05  |



| FREQUENCY | SENSITIVITY |       |       | DEVICE CONFORMITY            |       |
|-----------|-------------|-------|-------|------------------------------|-------|
|           | MIN.        | NOM.  | MAX.  | RANGE OF DEVIATION FROM 1KHz |       |
| 100       | ---         | -63.0 | ---   | -10.0                        | -3.0  |
| 1000      | -59.0       | -56.0 | -53.0 | 0.0                          | 0.0   |
| ≈ 5500    | ---         | -49.0 | ---   | +4.0                         | +10.0 |

SUPPLY IN PACKS WITH 1000Hz SENSITIVITY GRADES

| GRADE | MIN (dB) | MAX (dB) |
|-------|----------|----------|
| A     | -53.99   | -53.00   |
| B     | -54.99   | -54.00   |
| C     | -55.99   | -55.00   |
| D     | -56.99   | -56.00   |
| E     | -57.99   | -57.00   |
| F     | -59.00   | -58.00   |

NOTES:

- CASE CONNECTED TO NEGATIVE TERMINAL.
- MICROPHONE TO BE FUNCTIONAL WITH 1.6 VDC SUPPLY.
- TYPICAL SENSITIVITY TO HUMIDITY AT 1000Hz IS 0.03 dB/%RH
- SENSITIVITY AND NOISE VALUES INDICATED ON THIS SPECIFICATION ARE VALID AT 50% HUMIDITY.

| 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 |      |      |
|---------------|-----------|-------------------------|-------------------------------------------------|---------------------------------------|-----------------------|------|------|
|               |           |                         |                                                 |                                       | MIN.                  | NOM. | MAX. |
| I2S           | 1.3V      | 50 µA MAX.              | 3 dB MAX.                                       | 28.0 dB MAX.                          | 2800                  | 4400 | 6800 |

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| Revision                                                                                                                                                                                                     | C.O. #    | Implementation Date | RELEASE LEVEL |  | REVISION |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------|---------------|--|----------|
| E                                                                                                                                                                                                            | M10104543 | 3-14-12             | Active        |  | E        |
| D                                                                                                                                                                                                            | M10104420 | 12-22-11            |               |  |          |
| 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 |           |                     | DR. BY        |  |          |
| TITLE: MICROPHONE<br><br>PERFORMANCE SPECIFICATION                                                                                                                                                           |           |                     | AB            |  | 10-4-05  |
|                                                                                                                                                                                                              |           |                     | CK. BY        |  | DATE     |
|                                                                                                                                                                                                              |           |                     | GJP           |  | 10-4-05  |
| EM-24446-G10<br><br>SHT 2.1                                                                                                                                                                                  |           |                     | APP. BY       |  | DATE     |
|                                                                                                                                                                                                              |           |                     | GJP           |  | 10-4-05  |