



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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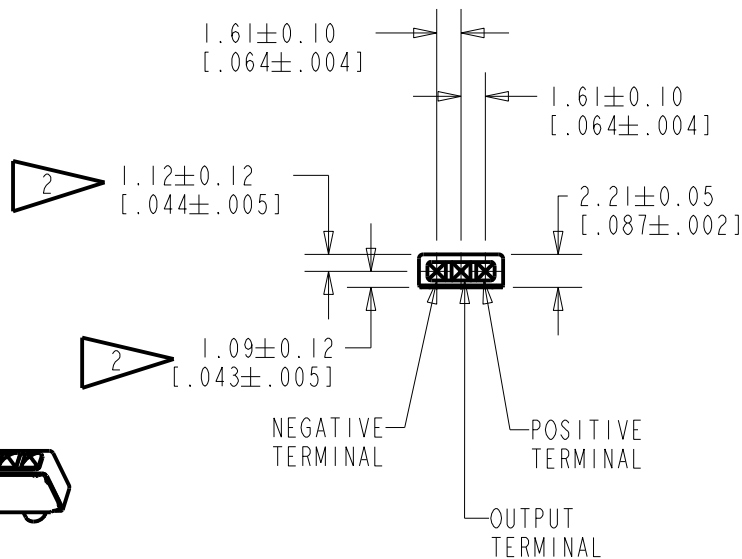
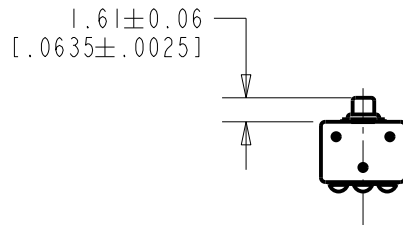
EK-23024-000

SHT 1.1

NOTE

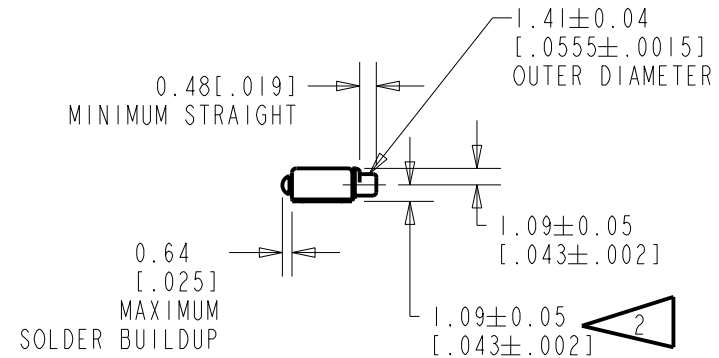
1. INCREASED PRESSURE AT THE SOUND INLET CAUSES A POSITIVE GOING VOLTAGE TO APPEAR AT THE OUTPUT TERMINAL, RELATIVE TO THE NEGATIVE TERMINAL.

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



NOMINAL WEIGHT
.13 GRAM

DIMENSIONS IN MILLIMETERS [INCHES]

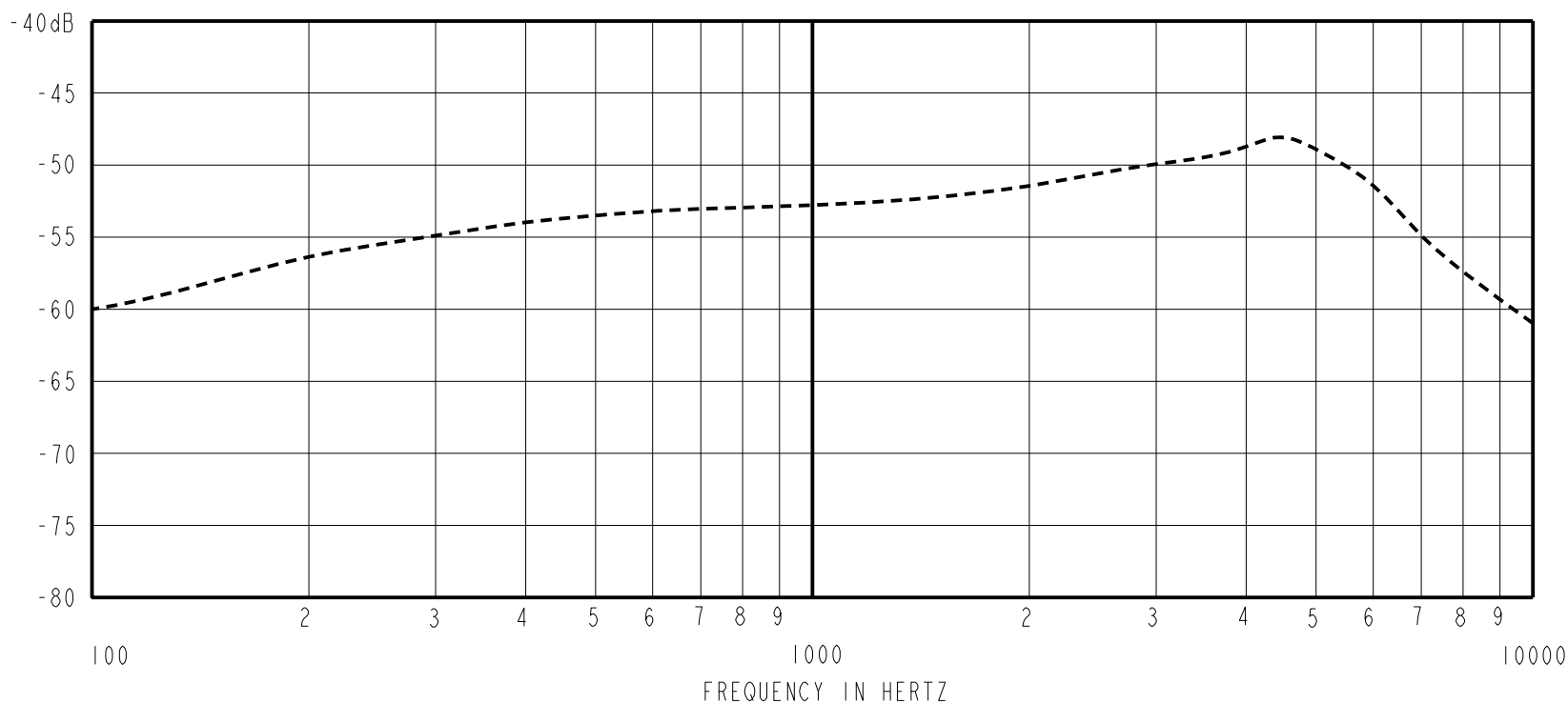


| Revision | C.O. # | Implementation Date | RELEASE LEVEL | REVISION |
|----------|-----------|---------------------|---------------|----------|
| B | MI0105324 | 01/24/14 | Active | B |
| A | MI0100922 | 11/23/05 | | |

| | | | |
|----------------------|--|--------------|----------------|
| SCALE: 2:1 | | DR. BY: DMS | DATE: 11/23/05 |
| DO NOT SCALE DRAWING | | | |
| TITLE: MICROPHONE | | EK-23024-000 | |
| OUTLINE DRAWING | | SHT 1.1 | |
| | | CK. BY: GJP | DATE: 11/27/05 |
| | | APP. BY: GJP | DATE: 11/27/05 |

KNOWLES ELECTRONICS
ITASCA, ILLINOIS U.S.A.

SENSITIVITY IN dB RELATIVE TO 1.0 VOLT/0.1 Pa (N/M²)
FOR CONDITIONS SHOWN BELOW.



| FREQUENCY | SENSITIVITY | | | DEVICE CONFORMITY | |
|-----------|-------------|-------|-------|------------------------------|------|
| | MIN. | NOM. | MAX. | RANGE OF DEVIATION FROM 1KHz | |
| 100 | --- | -60.0 | --- | -11.0 | +4.0 |
| 1000 | -55.0 | -53.0 | -51.0 | 0.0 | 0.0 |
| 3500-5500 | --- | -48.5 | --- | +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 QUALIFICATIONS TEST, EK-PA SHEET 2.2' WITH REF. FREQ. OF 1000 Hz.
4. TYPICAL SENSITIVITY TO HUMIDITY AT 1000 Hz IS 0.02 dB/%RH.
5. 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. | 26.0 dB MAX. | 2800 | 4400 | 6800 |

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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**
PERFORMANCE SPECIFICATION

EK-23024-000
SHT 2.1

| | |
|---------|----------|
| DR. BY | DATE |
| DMS | 11/23/05 |
| CK. BY | DATE |
| GJP | 11/27/05 |
| APP. BY | DATE |
| GJP | 11/27/05 |