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.

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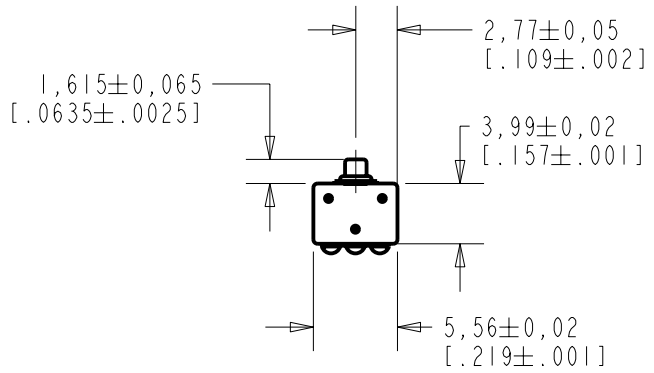
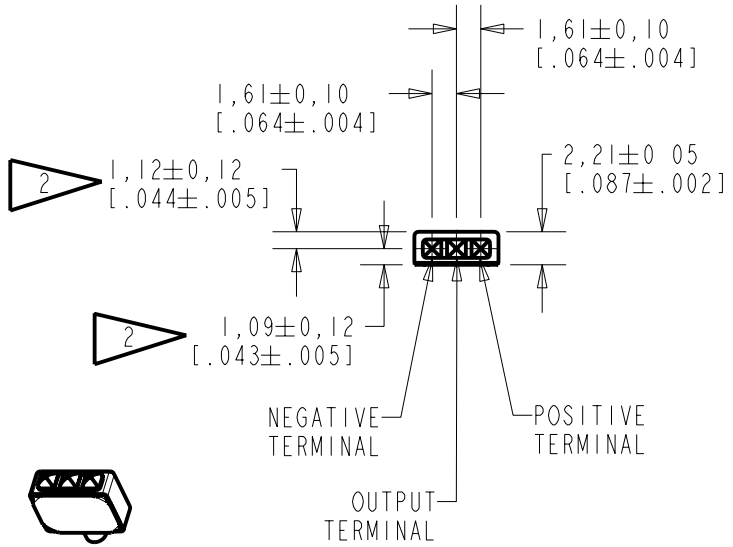
EA-23178-078
SHT 1.1



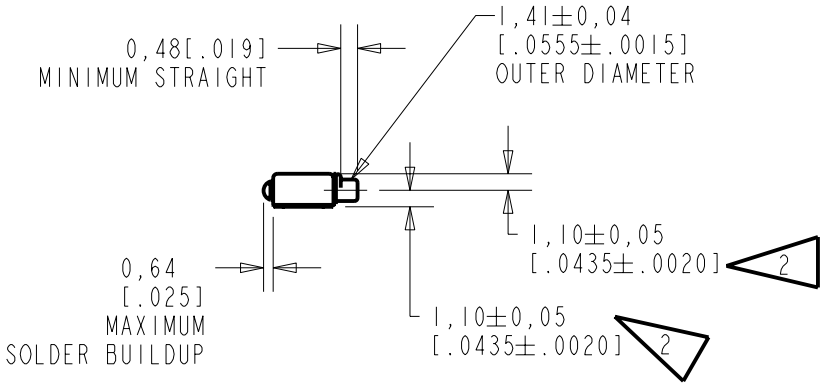
NOTE:

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]

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
			Released	A
A	MI0101333	12-14-06		

KNOWLES ELECTRONICS
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SCALE: 2:1

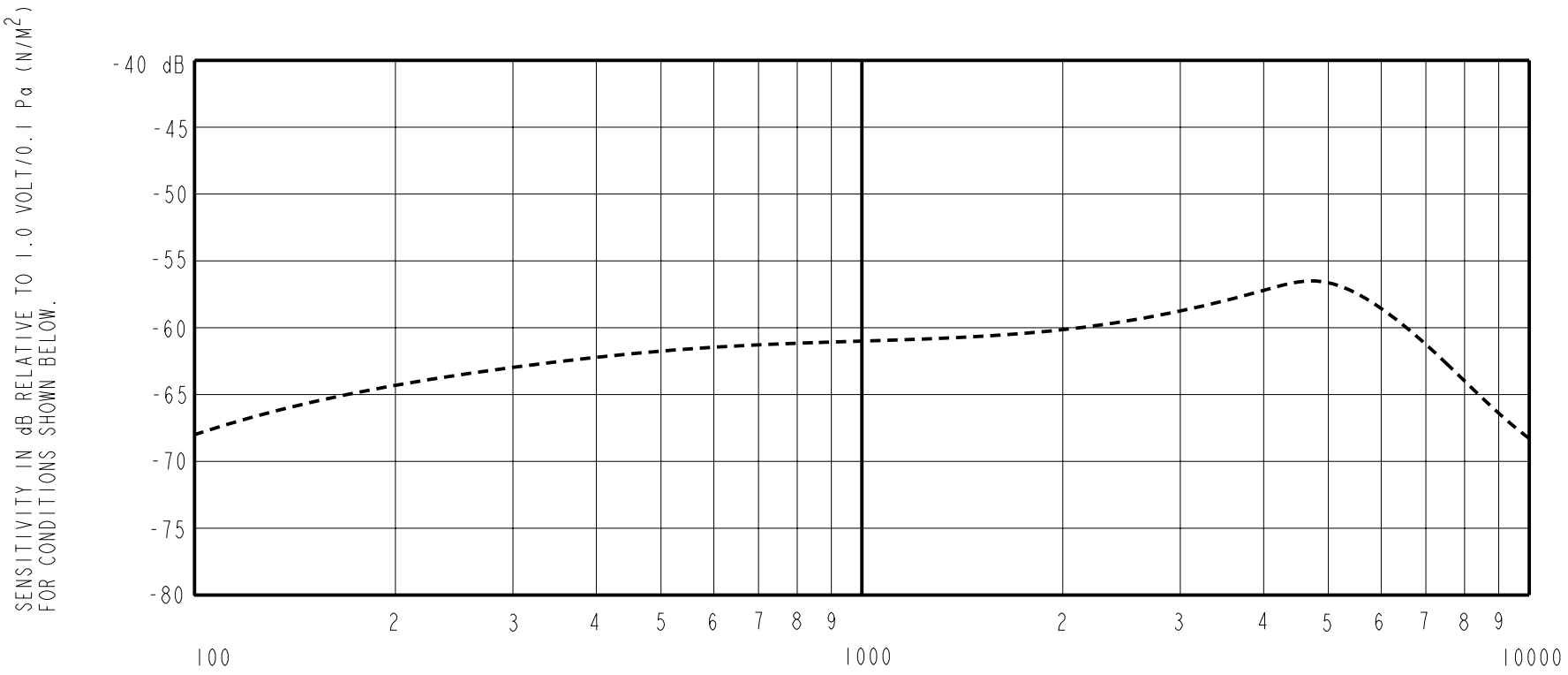
DO NOT SCALE DRAWING

TITLE: MICROPHONE
OUTLINE DRAWING

EA-23178-078
SHT 1.1

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

KEIIIASIZE.FRM Rev: B



SENSITIVITY

FREQUENCY	MIN.	NOM.	MAX.
100	---	-68.0	---
1000	-64.0	-61.0	-58.0
≈4800	---	-56.5	---

DEVICE CONFORMITY

RANGE OF DEVIATION FROM 1KHz	
-11.0	-4.0
0.0	0.0
+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
			Released	A
A	M10101333	12-14-06		

KNOWLES ELECTRONICS
ITASCA, ILLINOIS U.S.A.

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

EA-23178-078
SHT 2.1

DR. BY	DATE
LSY	12-14-06
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GJP	12-21-06

WHEN THESE TESTS ARE USED TO ESTABLISH PRODUCT QUALIFICATION, CORRELATION OF TEST EQUIPMENT WITH KNOWLES ELECTRONICS IS ALSO REQUIRED TO ELIMINATE EQUIPMENT AND TEST METHOD VARIATION.

BECAUSE THIS IS AN ACCELERATED LIFE TEST, IT FOLLOWS THAT THE UNITS WHICH HAVE BEEN TESTED WILL NOT QUALIFY AS IN-WARRANTY RETURNS. SINCE THESE TESTS ARE DESTRUCTIVE IN NATURE, DEVICES SUBJECTED TO THESE TESTS SHOULD NOT BE USED IN PRODUCTION.

1. ACCELERATED DAMP HEAT TEST.

1.1 PRECONDITIONING:
TIME - 16 HOURS
TEMPERATURE - 22°C ±1°C
HUMIDITY - 60% MAX. R.H.

1.2 TEST CONDITIONS:
TIME AT CONDITIONS: - 1000 HOURS
TEMPERATURE - 63°C ±1°C
HUMIDITY - 95% R.H. ±2%
VOLTAGE STRESS - DETAILED FIG. 1

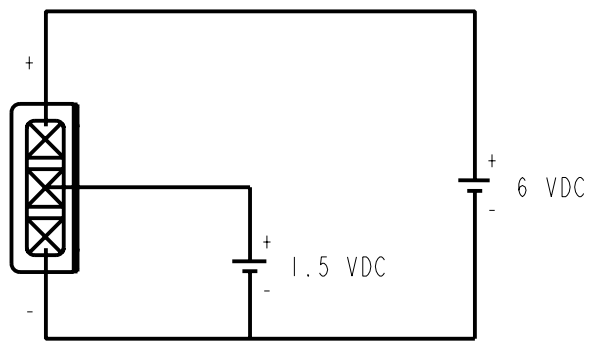

FIG. 1

(AVOID CONDENSATION FALLING ON UNITS UNDER TEST.)

1.3 INITIAL MEASREMENTS:
AFTER PRECONDITIONING, MEASURE SENSITIVITY PER SHEET 2.1 OF THE APPLICABLE KNOWLES ELECTRONICS MICROPHONE PERFORMANCE SPECIFICATION.

1.4 TEST PROCEDURE:
INSERT UNIT(S) INTO TEST CHAMBER PER CONDITIONS OF 1.2.

1.5 RECOVERY:
TIME - 2 HOURS
TEMPERATURE - 22°C ± 1°C
HUMIDITY - 60% MAX. R.H.

1.6 FINAL MEASUREMENTS:
MEASURE SENSITIVITY PER CONDITIONS DESCRIBED ON SHEET 2.1.

1.7 REQUIREMENT:
NO UNITS WILL BE INOPERATIVE FOLLOWING THE TEST AND RECOVERY CYCLE.

2. SHOCK TEST

2.1 PRECONDITIONING:
TIME - 16 HOURS
TEMPERATURE - 22°C ± 1°C
HUMIDITY - 60% MAX. R.H.

2.2 TEST CONDITIONS:
HALF-SINE IMPULSE DURATION - 100 MICROSECONDS
PEAK AMPLITUDE - 20,000 g

SPURIOUS DEVIATIONS IN THE HALF-SINE IMPULSE CURVE SHALL BE REDUCED TO WHERE RESULTS ARE NOT APPRECIABLY AFFECTS.

UNIT(S) TO BE SUBJECTED TO THE TEST CONDITIONS EITHER IN THE COVER UP OR COVER DOWN ORIENTATION.

2.3 INITIAL MEASUREMENTS:
AFTER PRECONDITIONING, MEASURE AND RECORD THE 1 kHz SENSITIVITY PER SHEET 2.1 OF THE APPLICABLE KNOWLES ELECTRONICS MICROPHONE PERFORMANCE SPECIFICATION.

2.4 TEST PROCEDURE:
STRESS UNIT(S) ACCORDING TO THE ABOVE 2.2 TEST CONDITIONS.

2.5 RECOVERY:
UNITS TO BE MEASURED IMMEDIATELY AFTER TEST CYCLE.

2.6 FINAL MEASUREMENTS:
MEASURE AND RECORD THE 1 kHz SENSITIVITY PER SHEET 2.1.

2.7 REQUIREMENT:
THE UNIT(S) SHALL SHOW A MAXIMUM CHANGE IN 1kHz SENSITIVITY (INITIAL TO FINAL) OF 1.0 dB AS A RESULT OF THE TEST CYCLE.

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

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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

EA-23178-078
SHT 2.2

DR. BY	DATE
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