



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!



## Contact us

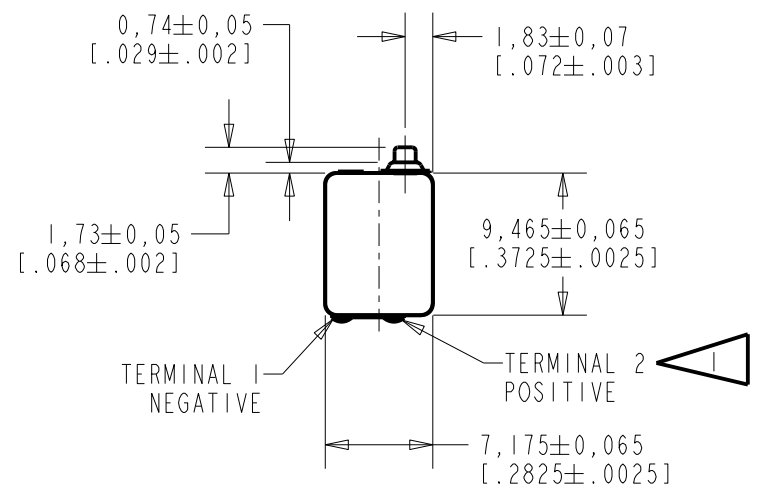
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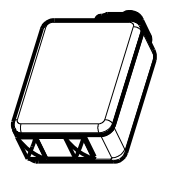
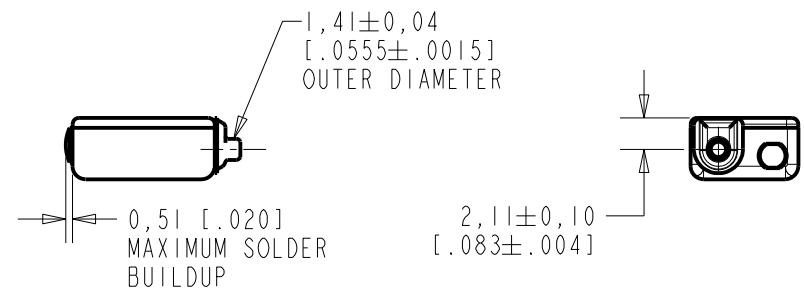
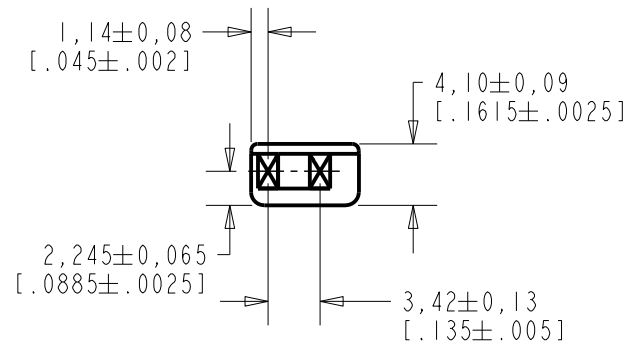


**CI-30050-000**  
SHT 1.1



NOTES:

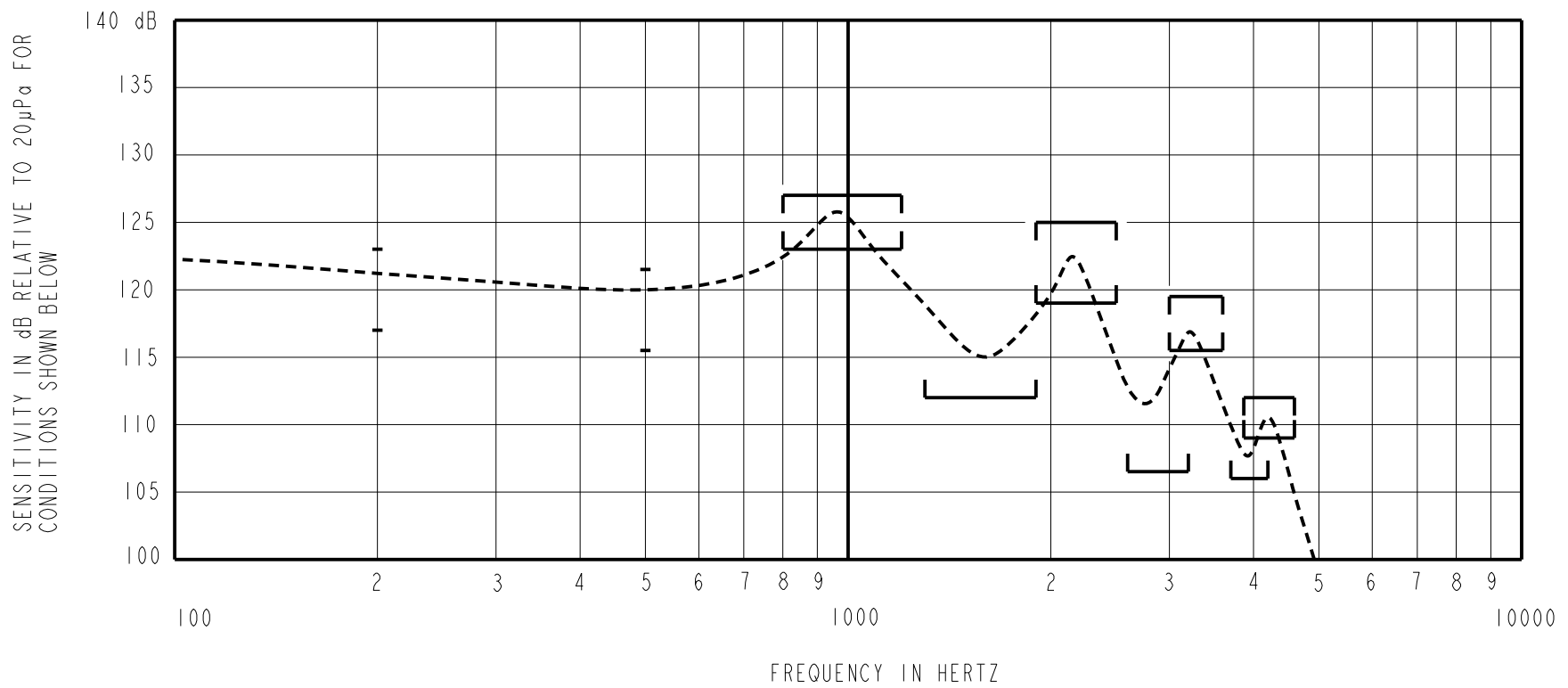
▲ A POSITIVE GOING VOLTAGE AT TERMINAL 2, RELATIVE TO TERMINAL 1, CAUSES A DECREASE IN PRESSURE AT THE SOUND OUTLET.



DIMENSIONS IN MILLIMETERS [INCHES]

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

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	CI0111948	12-31-10	Active	B
A	CI0104716	9-13-06		
SCALE: 2:1			DR. BY	DATE
DO NOT SCALE DRAWING			SDZ	9-13-06
TITLE: RECEIVER			CK. BY	DATE
OUTLINE DRAWING			GJP	9-29-06
CI-30050-000			APP. BY	DATE
SHT 1.1			GJP	9-29-06



**ACOUSTICAL**

SENSITIVITY\*  
DEVICE WILL PRODUCE THE SPL LISTED BELOW WITH THE TEST CONDITIONS DESCRIBED IN TABLE 3. NOMINAL SENSITIVITY AT 500 Hz IS dB RELATIVE TO 20µPa. ALL OTHER VALUES IN dB RELATIVE TO THE SENSITIVITY AT 500 Hz.

FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
200	-1.5	+1.5	+4.5
500	-3.0	+18.5	+3.0
800-1200 PEAK 1	+4.5	+6.5	+8.5
1300-1900 VALLEY 1	-6.5	---	---
1900-2500 PEAK 2	+0.5	+3.5	+6.5
2600-3200 VALLEY 2	-12.0	---	---
3000-3600 PEAK 3	-3.0	-1.0	+1.0
3700-4200 VALLEY 2	-12.5	---	---
4100-4600 PEAK 4	-9.5	-8.0	-6.5

TABLE 1.

TOTAL HARMONIC DISTORTION\*  
DEVICE WILL NOT EXCEED TOTAL HARMONIC DISTORTION LEVELS LISTED BELOW.

FREQUENCY (Hz)	DRIVE (V RMS)	DC BIAS (MA)	LIMIT (%)
350	.148 V	0	5
500	.148 V	0	5
500	.412 V	0	10

TABLE 2.

TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	.148 Vrms, 0 Vdc BIAS
SOURCE IMPEDANCE	< 1 Ω
TUBING	8 mm (.315) LONG X 1 mm (.039) ID 28 mm (1.10) LONG X 1.5 mm (.059) ID 25 mm (.984) LONG X 2 mm (.079) ID 18 mm (.710) LONG X 3 mm (.118) ID
COUPLER CAVITY	2 CC SIMULATED ANSI S3.6 TYPE HA-3 (IEC 60318-5)

TABLE 3.

POLARITY  
POSITIVE SIGNAL APPLIED TO TERMINAL 2 WILL PRODUCE A INCREASE IN SOUND PRESSURE AT THE SOUND OUTLET (REVERSE POLARITY).

**ELECTRICAL**

DC RESISTANCE	9.2Ω ±10%
IMPEDANCE @ 500Hz	25Ω ±20%

TABLE 4.

ISOLATION: THE CASE WILL BE ELECTRICALLY ISOLATED FROM THE COIL CIRCUIT\*

**MECHANICAL**

PORT LOCATION: IS

SOLDER TYPE: SAC305 (LEAD FREE)

TEMPERATURE

OPERATING: SENSITIVITY WILL NOT VARY MORE THAN +1/-3 dB FROM -17°C TO 63°C

STORAGE: -40°C TO 63°C

MECHANICAL SHOCK

LEAK TEST AFTER AGING (NO LEAK AFTER ANY OF THE ABOVE TESTS)

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Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	CI0111948	12-31-10	<b>Active</b>	<b>B</b>
A	CI0104716	9-13-06		
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: <b>RECEIVER</b> PERFORMANCE SPECIFICATION			CI-30050-000	
			SHT 2.1	
			BCR	12-29-95
			CK. BY	DATE
			SJM	1-4-96
			APP. BY	DATE
			DRK	1-9-96