



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

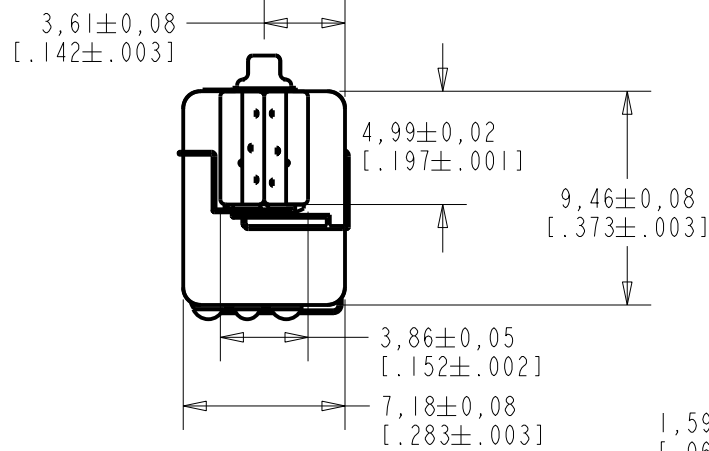
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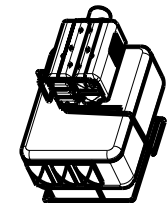
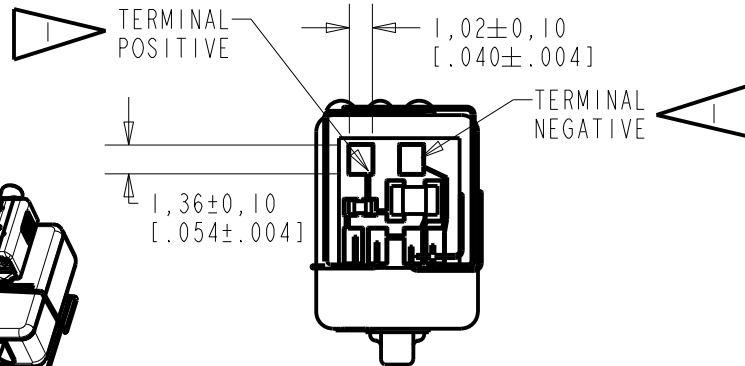
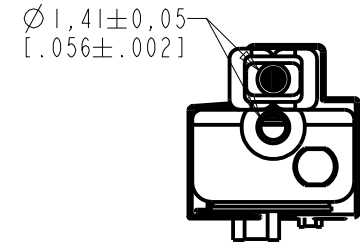
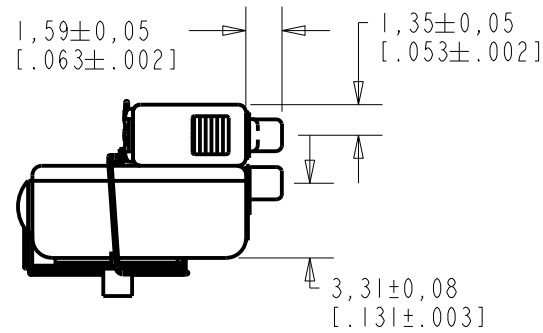
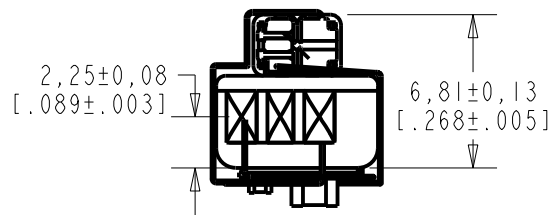


**GK-31732-000**  
SHT 1.1



NOTES:

 A POSITIVE GOING VOLTAGE AT THE POSITIVE TERMINAL RELATIVE TO THE NEGATIVE TERMINAL CAUSES A DECREASE IN PRESSURE AT THE SOUND OUTLETS.



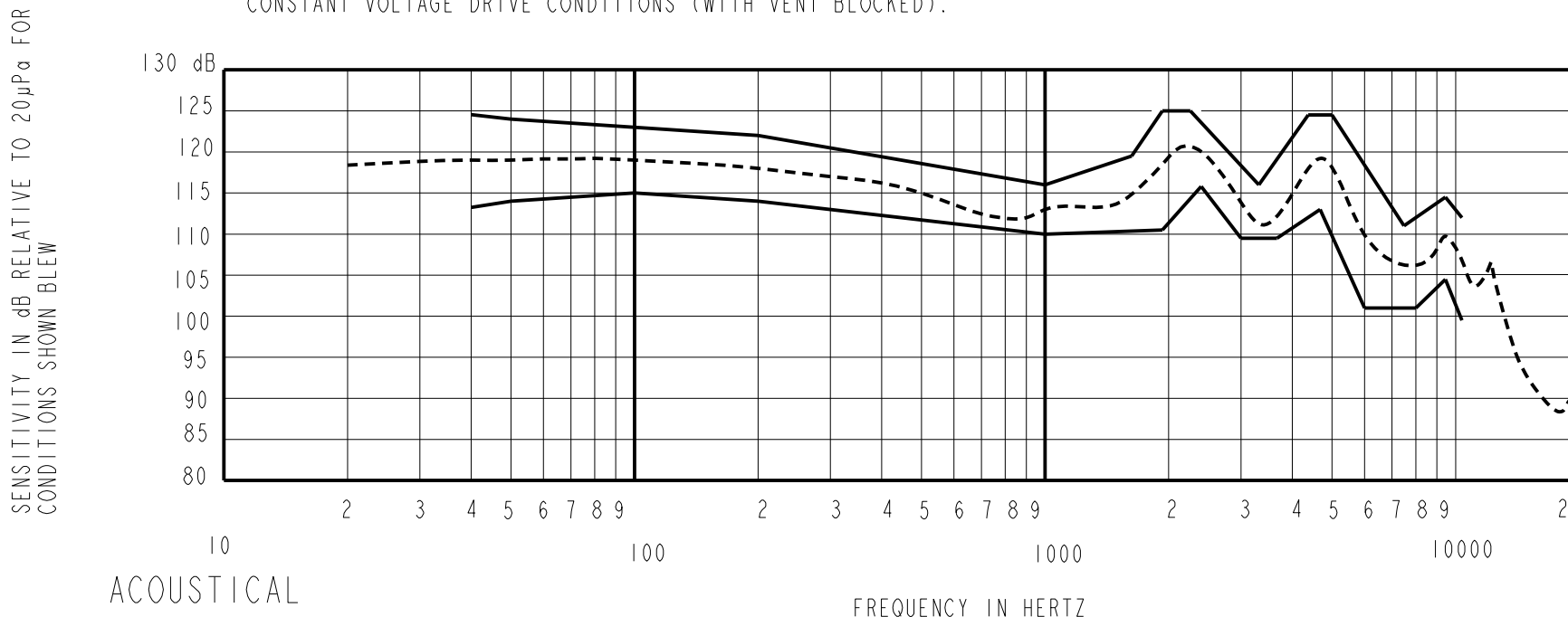
SCALE 2:1  
NOMINAL WEIGHT 1.26 GRAM  
DIMENSIONS IN MILLIMETERS [INCHES]

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
A	C40101062	8-2-12	Active	A

SCALE: 3:1	DR. BY LW	DATE 8-2-12
DO NOT SCALE DRAWING	CK. BY GJP	DATE 8-23-12
TITLE: RECEIVER OUTLINE DRAWING	APP. BY GJP	DATE 8-23-12
GK-31732-000 SHT 1.1		

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

CONSTANT VOLTAGE DRIVE CONDITIONS (WITH VENT BLOCKED).



ACOUSTICAL

SENSITIVITY  
DEVICE WILL PRODUCE THE SPL LISTED BELOW UNDER TEST CONDITION IN TABLE 3.  
NOMINAL SENSITIVITY AT 1kHz IS dB RELATIVE TO 20 μPa. ALL OTHER VALUES  
IN dB RELATIVE TO THE SENSITIVITY AT 1kHz.

FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
50	+1.0	+6.0	+11.0
100	+2.0	+6.0	+10.0
200	+1.0	+5.0	+9.0
1000	-3.0	+13.0	+3.0
1700	---	---	+6.5
1950	-2.5	+5.5	+12.0
2300	+2.8	---	---
2450	---	---	+12.0
3000	-5.5	---	---
3350	---	---	+3.0
3700	-5.5	---	---
4400	---	---	+11.5
4700	+0.0	---	---
5000	---	---	+11.5
6000	-12.0	---	---
7500	---	---	-2.0
8000	-12.0	---	---
9750	-8.5	---	+1.5
10500	-13.5	---	-1.0

TABLE 1  
TOTAL HARMONIC DISTORTION  
DEVICE WILL NOT EXCEED TOTAL HARMONIC DISTORTION LEVELS LISTED BELOW.

FREQUENCY (Hz)	AC DRIVE (V rms)	DC BIAS (mA)	LIMIT (%)
20-8000	0.13	0	4

TABLE 2  
TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	0.13 V rms, 0mA DC BIAS
SOURCE IMPEDANCE	<1 Ohm
TUBING	TUBELESS
COUPLER CAVITY	IEC 60318-4

TABLE 3  
ELECTRICAL

DC RESISTANCE	24.1 Ohms ± 10%
IMPEDANCE @ 500 Hz	23.0 Ohms ± 20%
IMPEDANCE @ 1kHz	12.0 Ohms ± 20%

TABLE 4  
ISOLATION: CASE WILL BE ELECTRICALLY ISOLATED FROM THE COIL CIRCUIT.

MECHANICAL

PORT LOCATION: 12S  
SOLDER TYPE: SAC305 (LEAD FREE)

TEMPERATURE:  
OPERATING: SENSITIVITY AT 1kHz WILL NOT VARY  
BY MORE THAN +1/-3 dB FROM  
0°C TO 63°C  
STORAGE: -40°C TO 63°C

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A	C40101062	8-2-12	Active	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		DR. BY LW	DATE 8-2-12
TITLE: <b>RECEIVER</b> PERFORMANCE SPECIFICATION		G.J.P.	DATE 8-23-12
<b>GK-31732-000</b> SHT 2.1		APP. BY G.J.P.	DATE 8-23-12