



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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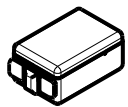
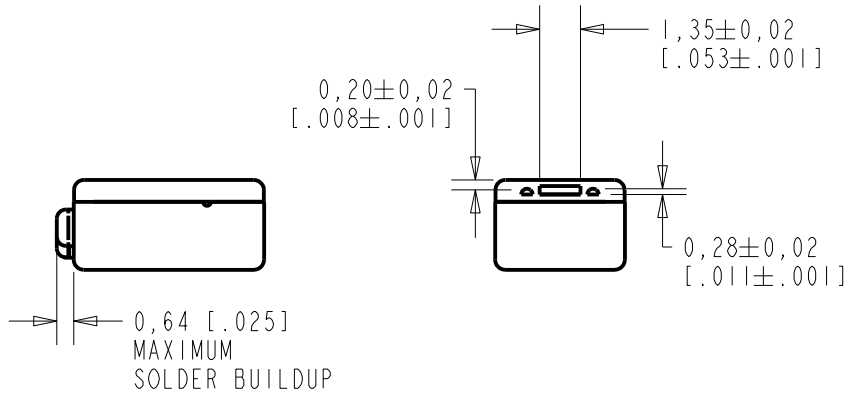
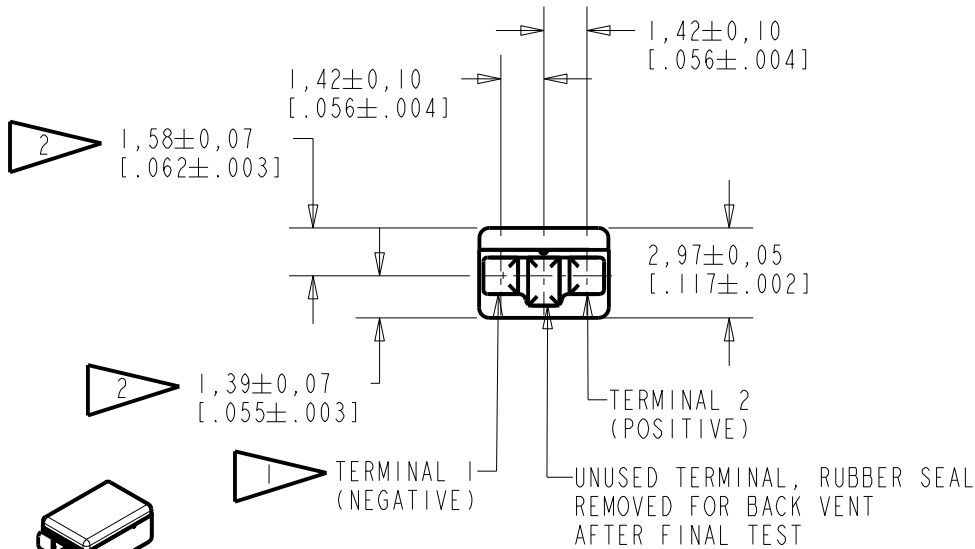
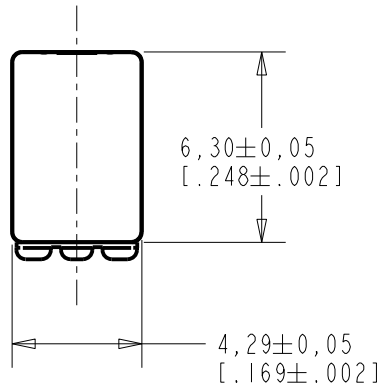
FED-30048-104

SHT 1.1

NOTE:

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

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].



SCALE 2:1

NOMINAL WEIGHT
.31 GRAM

DIMENSIONS IN MILLIMETERS [INCHES]

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
			Active	D
D	C10113486	5-17-12		

SCALE: 4:1		DR. BY: LSY	DATE: 8-25-06
DO NOT SCALE DRAWING			
TITLE: RECEIVER		FED-30048-104	
OUTLINE DRAWING		SHT 1.1	
		APP. BY: GJP	DATE: 9-8-06
		APP. BY: GJP	DATE: 9-8-06

KNOWLES ELECTRONICS
ITASCA, ILLINOIS U.S.A.

DESCRIPTION

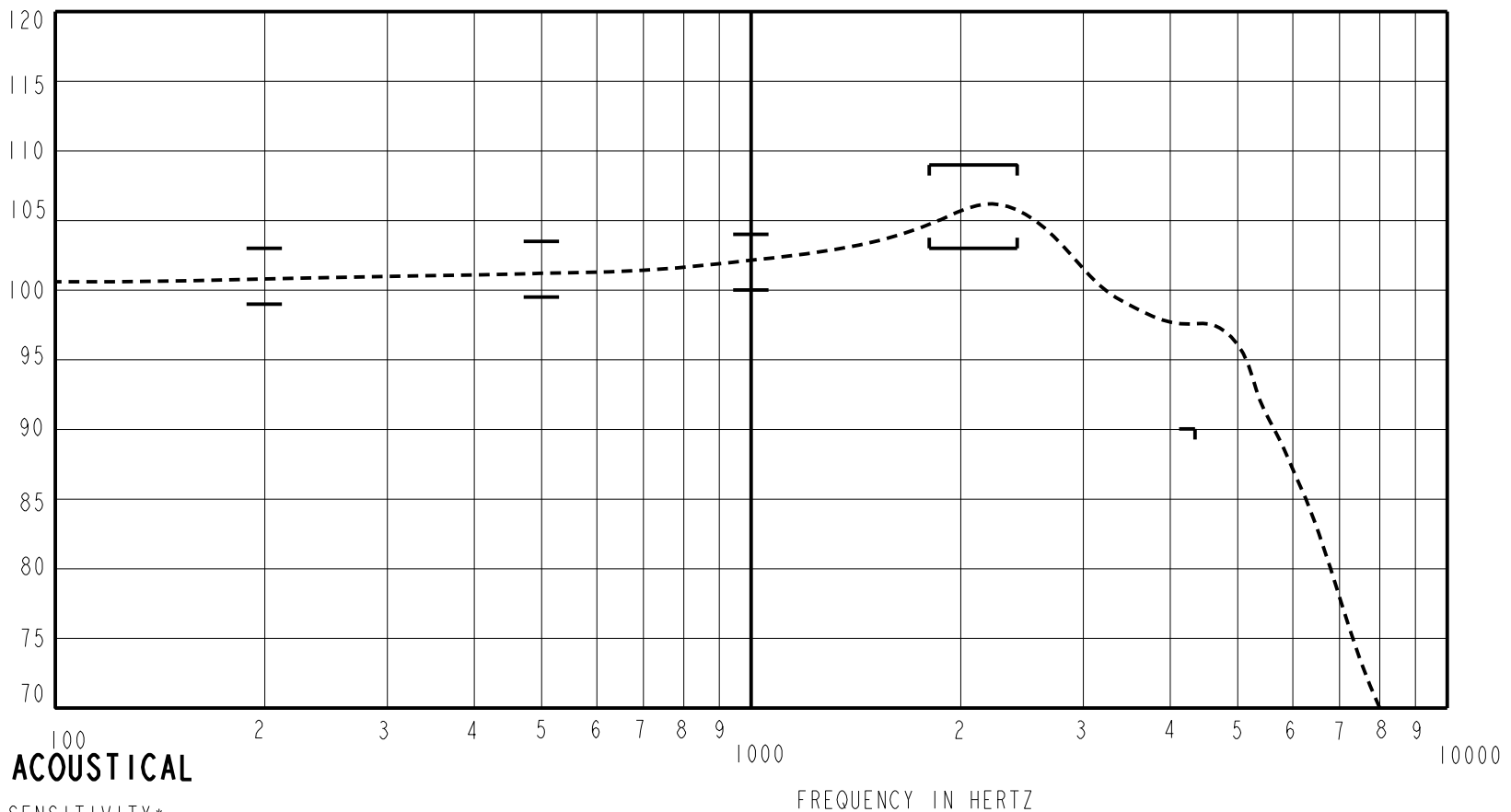
FERROFLUID DAMPING

FED-30048-104
SHEET 2.1

THE FED-30048-104 IS A FERROFLUID DAMPED, MAGNETIC BALANCED ARMATURE RECEIVER, INTENDED FOR USE IN HEADSETS. THIS MODEL IS SHOCK PROTECTED, HAS LOW IMPEDANCE, INCREASED DCR/IMPEDANCE RATIO, AND A REAR VENT.

CONSTANT VOLTAGE DRIVE CONDITIONS (NOTE: REAR VENT, CENTER TERMINAL PAD, BLOCKED FOR TEST)

SENSITIVITY IN dB RELATIVE TO 20 uPa FOR CONDITIONS SHOWN BELOW



ACOUSTICAL

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

FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
200	-3.0	-1.0	+1.0
500	-2.5	-0.5	+1.5
1000	-2.0	102.0	+2.0
1850-2650	+1.0	+4.0	+7.0
4400	-12.0	---	---

PORT LOCATION: 12N

TABLE 1.

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

FREQUENCY (Hz)	DRIVE (V RMS)	DC BIAS (mA)	LIMIT (%)
500	0.363	0	10
780	0.13	0	5
1175	0.13	0	5

TABLE 2.

TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	0.13 Vrms, 0 mA DC BIAS
SOURCE IMPEDANCE	< 1 Ω
TUBING	10 mm (.394) LONG, 1 mm (.039) ID.
COUPLER CAVITY	2 CM ³ SIMULATED ANSI S3.7 TYPE HA-3, (IEC 60318-5)

TABLE 3.

ELECTRICAL

DC RESISTANCE	23Ω ±10%
IMPEDANCE @ 500 Hz	26Ω ±15%
IMPEDANCE @ 1 kHz	29Ω ±15%

TABLE 4.

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

TEMPERATURE: OPERATING RANGE FROM 0°C TO 63°C (SENSITIVITY WILL NOT VARY BY MORE THAN ±3 dB WITHIN RANGE)
SENSITIVITY AT 0°C IS 2dB LOWER THAN THE SENSITIVITY AT ROOM TEMPERATURE.
DELTA PEAK IS 1dB HIGHER AT BODY TEMPERATURE (37°C)
STORAGE RANGE FROM -40°C TO 63°C.

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
			Active	D
D	C10113486	5-17-12		
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: RECEIVER			FED-30048-104	DR. BY DATE LSY 8-25-06
PERFORMANCE SPECIFICATION			SHT 2.1	CK. BY DATE GJP 9-8-06
				APP. BY DATE GJP 9-8-06

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