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Stocking Distributor

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[FED-30048-I04](#)

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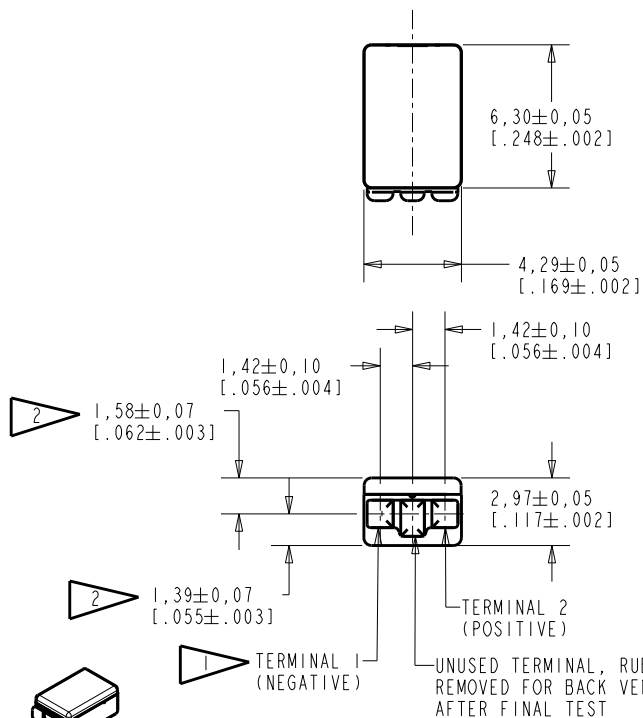
sales@integrated-circuit.com

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 $\pm 0,17$ [0.007].



SCALE 2:1

NOMINAL WEIGHT
.31 GRAM

DIMENSIONS IN MILLIMETERS [INCHES]

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
D	C10113486	5-17-12	Active	D
SCALE: 4:1			DR. BY LSY	DATE 8-25-06
DO NOT SCALE DRAWING			CK. BY GJP	DATE 9-8-06
TITLE: RECEIVER			APP. BY GJP	DATE 9-8-06
OUTLINE DRAWING			FED-30048-104 SHT 1.1	

KE111ASIZE.FRM

Rev: B

KNOWLES ELECTRONICS
ITASCA, ILLINOIS U.S.A.

DESCRIPTION

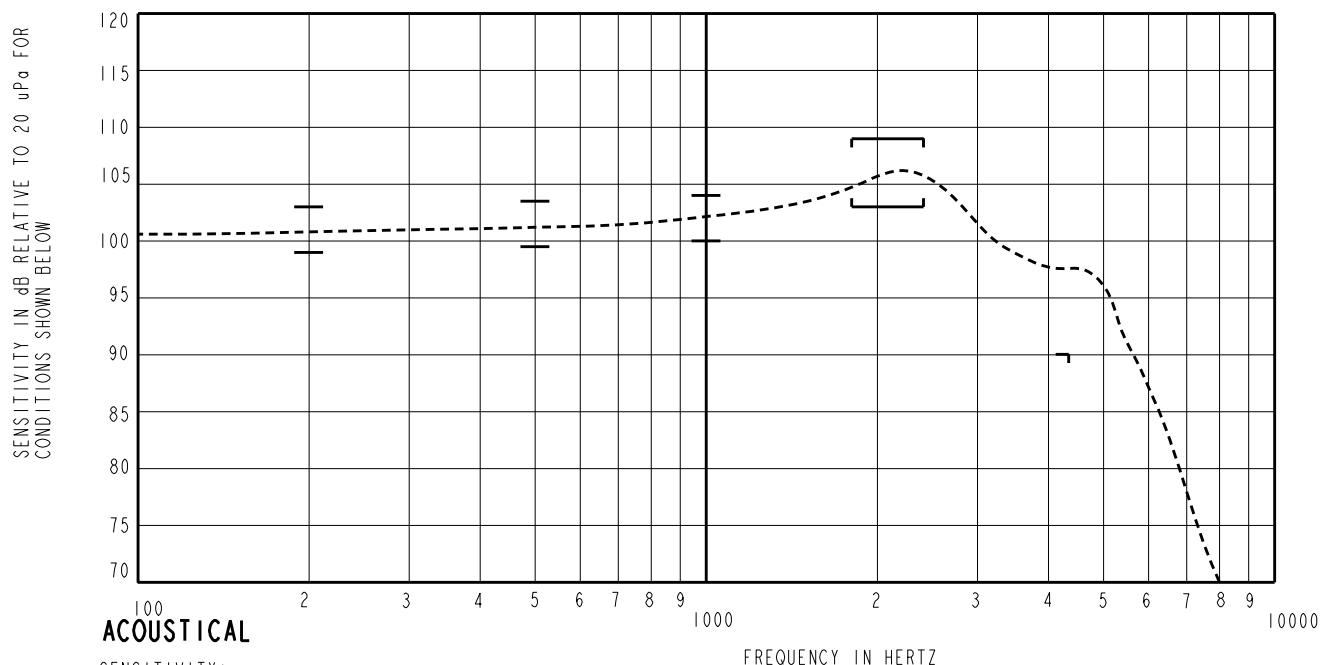
FERROFLUID DAMPING

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)



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	23 Ω $\pm$ 10%
IMPEDANCE @ 500 Hz	26 Ω $\pm$ 15%
IMPEDANCE @ 1 kHz	29 Ω $\pm$ 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 $\pm$ 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.