

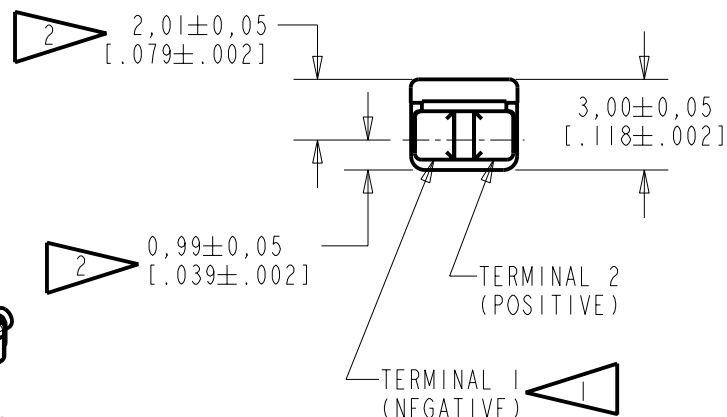
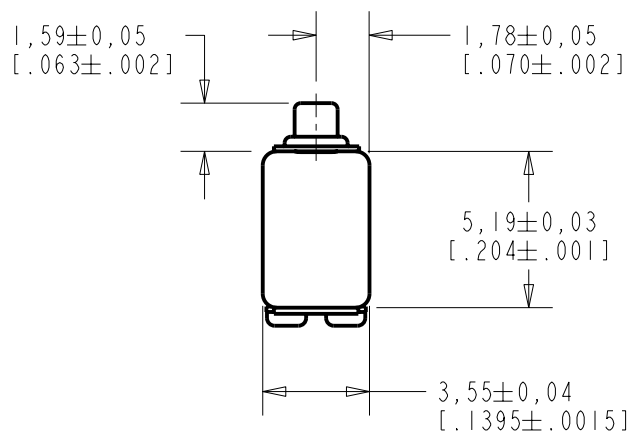
FEH-29833-102

SHT 1.1

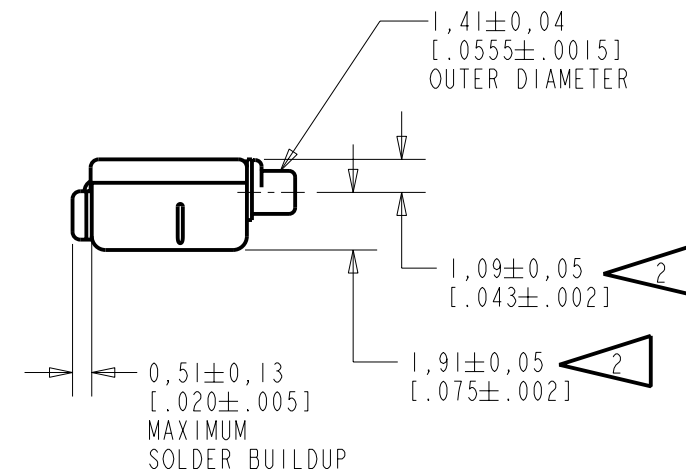
NOTES:

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.



SCALE 2:1



NOMINAL WEIGHT  
.23 GRAMS

DIMENSIONS IN MILLIMETERS [INCHES]

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

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
A	CI0103591	2-8-06	Released	A

SCALE: 4:1		DR. BY	DATE
DO NOT SCALE DRAWING		AB	2-8-06
TITLE: RECEIVER		CK. BY	DATE
OUTLINE DRAWING		GJP	2-12-06
FEH-29833-102		APP. BY	DATE
SHT 1.1		GJP	2-12-06

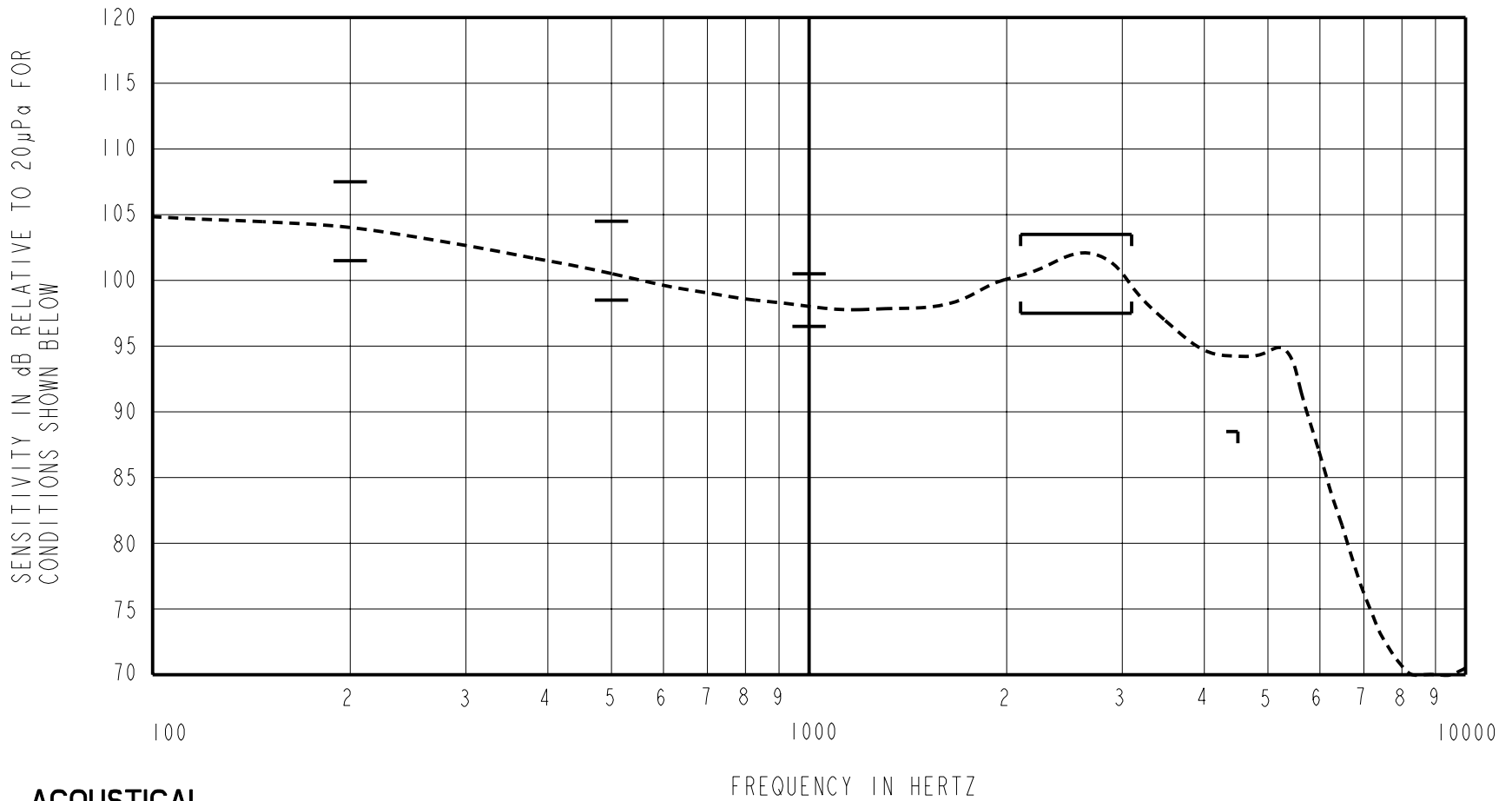
THE FEH-29833-102 IS A FERROFLUID DAMPED EH-29833-000 RECEIVER WITH A PEAK OF 2dB RELATIVE TO THE SENSITIVITY AT 1kHz UNDER CONSTANT VOLTAGE DRIVE CONDITIONS.

FERROFLUID DAMPING

FEH-29833-102

SHEET 2.1

CONSTANT VOLTAGE DRIVE CONDITIONS



ACOUSTICAL

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

FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
200	+3.0	+6.0	+9.0
500	0.0	+3.0	+6.0
1000	-2.0	98.5	+2.0
2600 - 3600	-1.0	+2.0	+5.0
4500	-10.0	---	---

PORT LOCATION: 12C

TABLE 1

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

FREQUENCY (Hz)	AC DRIVE (V rms)	DC BIAS (V)	LIMIT (%)
500	1.0	0	10
870	0.38	0	6
1300	0.38	0	6

TABLE 2

TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	0.38 V rms, 0 mA DC BIAS
SOURCE IMPEDANCE	<1 Ohm
TUBING	10mm [.394"] LONG, 1mm [.039"] I.D.
COUPLER CAVITY	2 CM <sup>3</sup> , SIMULATED ANSI S3.7 TYPE HA-3 (IEC 126)

TABLE 3

ELECTRICAL

DC RESISTANCE	197 Ohms ± 10%
IMPEDANCE @ 500 Hz	330 Ohms ± 15%
IMPEDANCE @ 1kHz	550 Ohms ± 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 1.5dB HIGHER AT BODY TEMPERATURE (37°C)  
STORAGE RANGE FROM -40°C TO 63°C

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
			Released	A
A	C10103591	2-8-06		
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			DR. BY	DATE
TITLE: RECEIVER PERFORMANCE SPECIFICATION			AB	2-8-06
			FEH-29833-102	
			GJP	2-12-06
			APP. BY	DATE
			GJP	2-12-06

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