

Description

Miniature magnetic receiver (balanced armature type) for use in hearing aids

Features

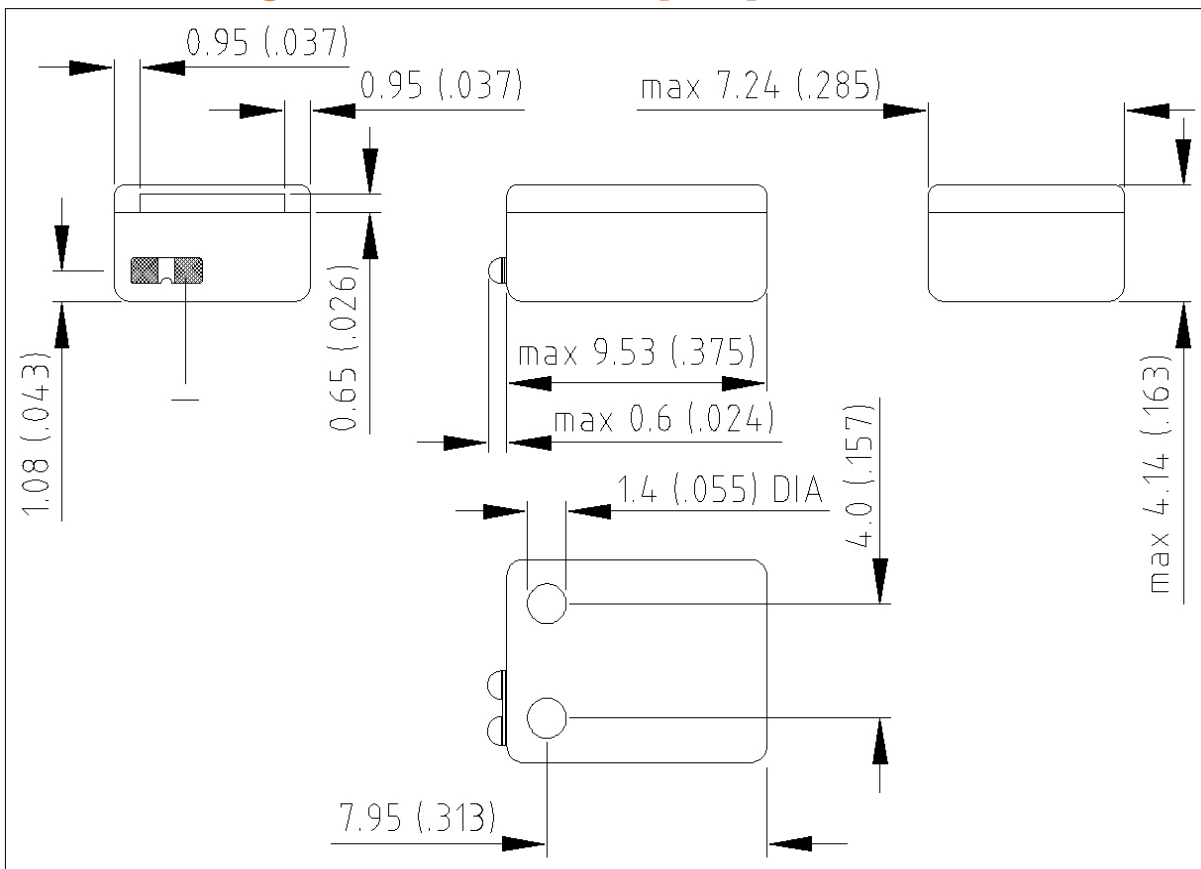
- Improved resistance to mechanical shock
- Special sound port



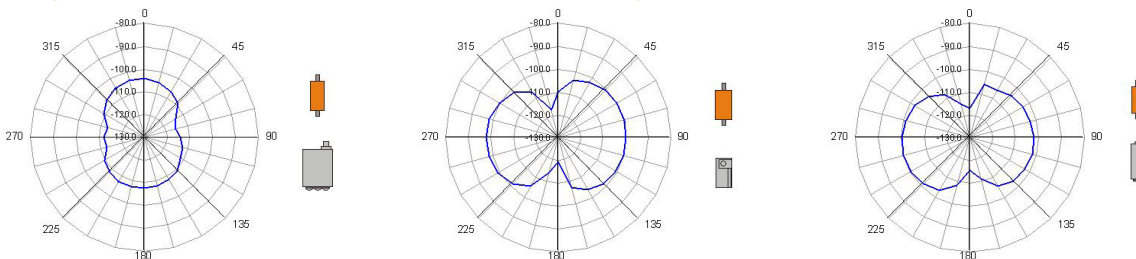
Mechanical data

| | |
|---------------------|--------------------------|
| Weight | 0.94 gr. |
| Case material | Ni80Fe20 |
| Solder pad material | Sn96.5Ag3.0Cu0.5 |
| Dimensions | Refer to outline drawing |

Product drawing - Dimensions in mm [inch]



Magnetic radiation patterns, radial, typical at 2200 Hz



Sonion reserves the right to make changes at any time to improve reliability, function or design, in order to provide the best product possible. Receivers series of this type can produce very high sound pressure levels. When such receivers are applied in hearing instruments or other communications equipment special attention should be paid to this capacity in order to prevent possible hearing damage.

Specifications

The acoustic termination consists of: 8 mm x 1 mm ID + 28 mm x 1.5 mm ID + 25 mm x 2 mm ID + 18 mm x 3 mm ID + 2 cc coupler. The holes in the rear are closed. The electrical input is a 3.88 mA RMS constant current signal from a high impedance source, applied to the total winding. Environmental conditions: 23 °C (73.4F), 50 % RH.

| Acoustic parameters | | Min | Typ | Max | Unit | Comments |
|-----------------------------------|------------|------|------|------|------|-----------------------------|
| Sensitivity | @ 200 Hz | 112 | 114 | 116 | dB | |
| | @ 300 Hz | 113 | 115 | 117 | dB | |
| | @ 500 Hz | 117 | 119 | 121 | dB | |
| | @ 1000 Hz | 120 | 122 | 124 | dB | |
| Peak 1 | frequency | 700 | 800 | 900 | Hz | |
| | output | 125 | 128 | 131 | dB | |
| Valley 1 | frequency | 1150 | 1300 | 1450 | Hz | |
| | output | 116 | 118 | | dB | |
| Peak 2 | frequency | 1750 | 1900 | 2050 | Hz | |
| | output | 124 | 127 | 130 | dB | |
| Valley 2 | frequency | 2250 | 2400 | 2550 | Hz | |
| | output | 117 | 119 | | dB | |
| Peak 3 | frequency | 2550 | 2800 | 3050 | Hz | |
| | output | 120 | 123 | 126 | dB | |
| Valley 3 | frequency | 3250 | 3600 | 3950 | Hz | |
| | output | 107 | 111 | | dB | |
| Peak 4 | frequency | 3750 | 4100 | 4450 | Hz | |
| | output | 113 | 116 | 120 | dB | |
| Valley 4 | frequency | 4650 | 5050 | 5450 | Hz | |
| | output | 96 | 101 | | dB | |
| THD | @ 1/3 peak | | | 9 | % | |
| | @ 1/2 peak | | | 9 | % | |
| Output @ ½ peak freq with 10% thd | | 124 | 127 | 130 | dB | measured with 1kOhm source |
| Maximum output @ peak frequency | | 135 | 138 | 141 | dB | measured with voltage drive |

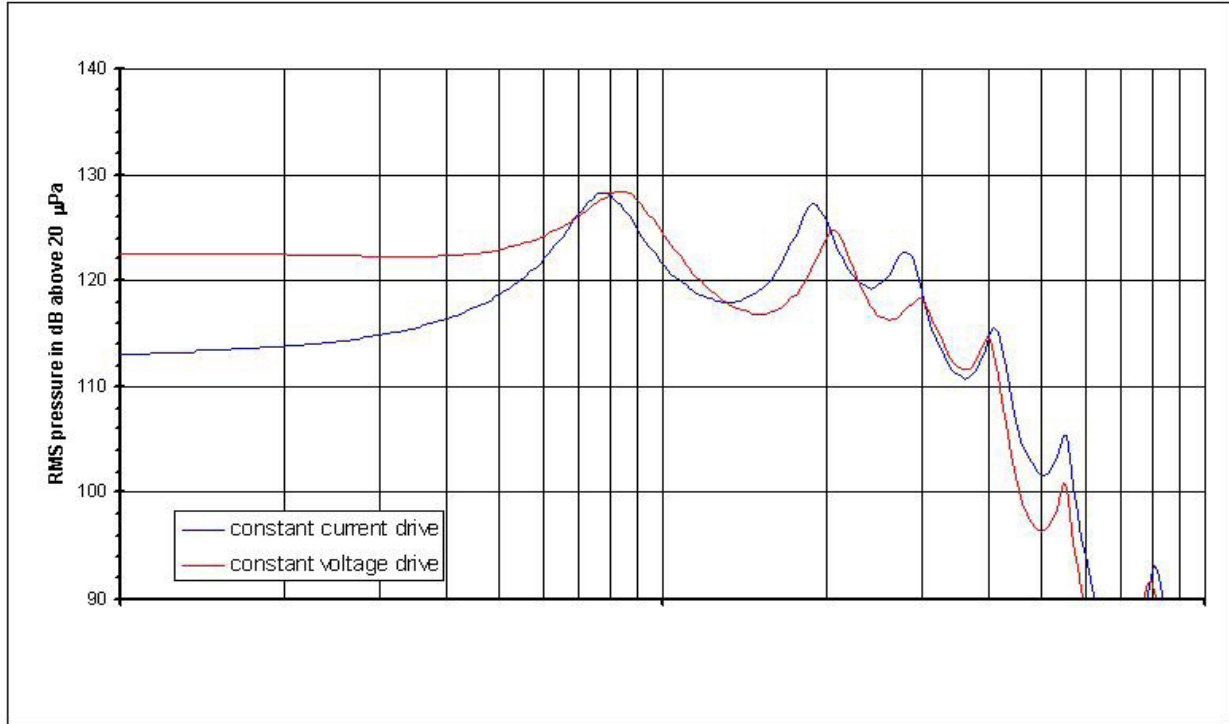
| Electric parameters | | Min | Typ | Max | Unit | Comments |
|-----------------------|--|-----------|-----|-----|------|--------------------------------------|
| Impedance @ 1000 Hz | | 34 | 40 | 46 | Ohm | |
| Impedance @ nominal | | 54 | 68 | 81 | Ohm | Geometric average 1, 1.6 and 2.5 kHz |
| DC resistance @ 20°C | | 17 | 20 | 23 | Ohm | |
| DC bias current range | | zero bias | | | | |

| Additional parameters | | Min | Typ | Max | Unit | Comments |
|---------------------------|--|------|-----|-----|------|---|
| Shock resistance | | 5500 | | | g | 90% survival rate with THD @ 1/2 peak frequency < 10% |
| Storage temperature range | | -40 | | 63 | °C | |

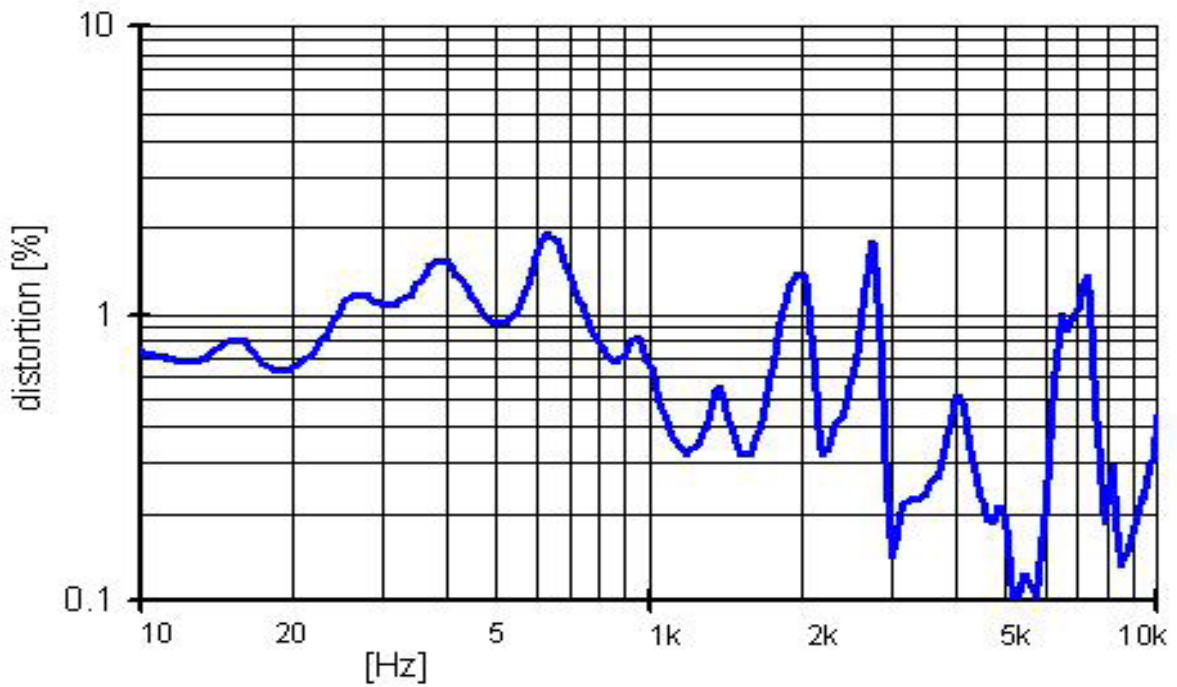
A positive voltage applied to the negative terminal (-) will result in an increase in pressure at the sound outlet.

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Typical response curve



THD vs Frequency, typical, nominal input



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