Data Sheet

Receiver E50DAA005



Description

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

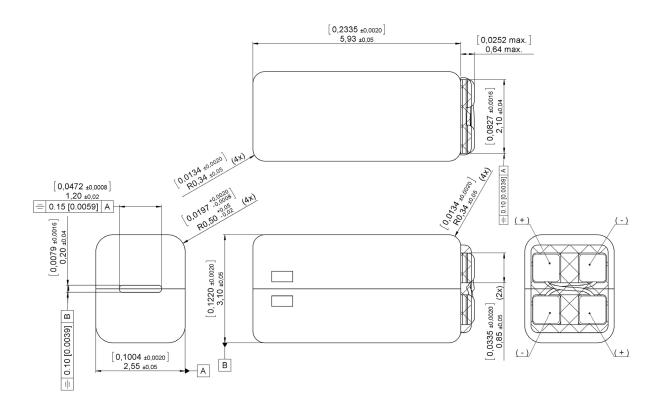
Features

- Dual receiver, parallel connected
- Reduced mechanical vibration
- Low magnetic radiation

Mechanical data

Weight 0.20 gr. Case material Ni80Fe15Mo5 Solder pad material Sn96.5Ag3.0Cu0.5 **Dimensions** Refer to outline drawing

Product drawing - Dimensions in mm [inch]



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.

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SpecificationsThe acoustic termination consist of: 10x1 mm ID into a 2cc coupler. Drive is voltage drive of 0.120 V rms (0.35 mVA at 500 Hz) unless specified otherwise. The presented data and responses corespond to the spouted version. Environmental conditions: 23°C (73.4F), 50% RH.

| Acoustic parameters | | Min | Тур | Max | Unit | Comments |
|---------------------------------|------------|------|------|-------|------|-------------|
| Sensitivity | @ 100 Hz | 97 | 100 | 103 | dB | |
| | @ 500 Hz | 97 | 100 | 103 | dB | |
| | @ 1000 Hz | 96.5 | 99.5 | 102.5 | dB | |
| Peak 1 | frequency | 2100 | 2400 | 2700 | Hz | |
| | output | 103 | 106 | 109 | dB | |
| Valley 1 | frequency | 4100 | 4600 | 5100 | Hz | |
| | output | 90 | 93 | | dB | |
| Peak 2 | frequency | 5300 | 5800 | 6300 | Hz | |
| | output | 93 | 97 | 101 | dB | |
| THD | @ 1/3 peak | | 1 | 5 | % | |
| | @ 1/2 peak | | 1 | 5 | % | |
| Maximum output @ peak frequency | | | 123 | | dB | @ 0.92 Vrms |

| Electric parameters | Min | Тур | Max | Unit | Comments |
|-----------------------|-----------|-----|-----|------|----------|
| Impedance @ 1000 Hz | 40 | 50 | 60 | Ohm | |
| Impedance @ 500 Hz | 33 | 41 | 49 | Ohm | |
| DC resistance @ 20°C | 32 | 38 | 44 | Ohm | |
| DC bias current range | zero bias | | | | |

| Additional parameters | Min | Тур | Max | Unit | Comments |
|---------------------------|-------|-----|-----|------|----------|
| Shock resistance | 12000 | | | g | |
| 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.

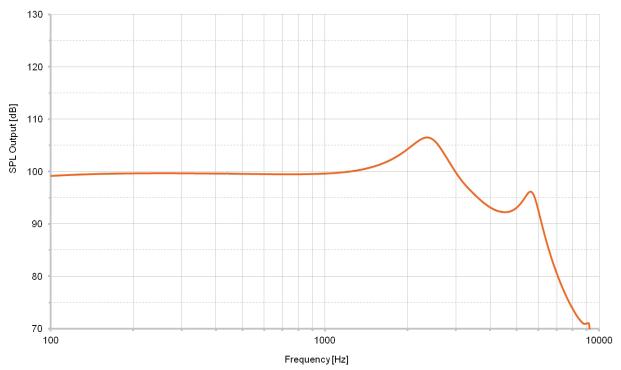
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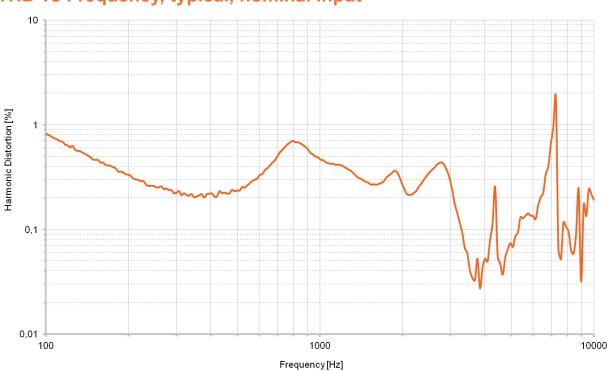




Typical response curve



THD vs Frequency, typical, nominal input



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Version date