

Data Sheet



receiver 2099

3207 - 3006359
Version:2 13-APR-2007

Description

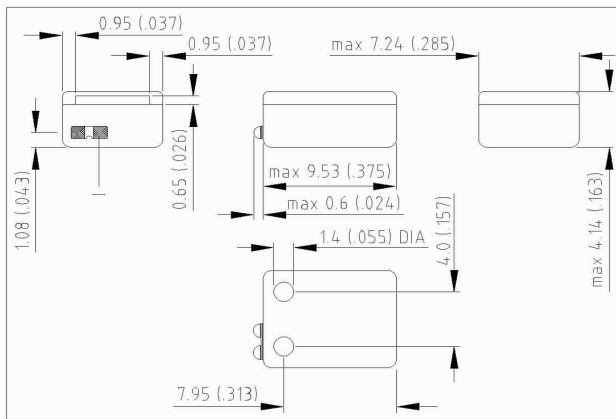
Miniature magnetic receiver (balanced armature type) for use in hearing aids.



Features

- Improved resistance to mechanical shock
- Special sound port

Dimensions in mm (inch)

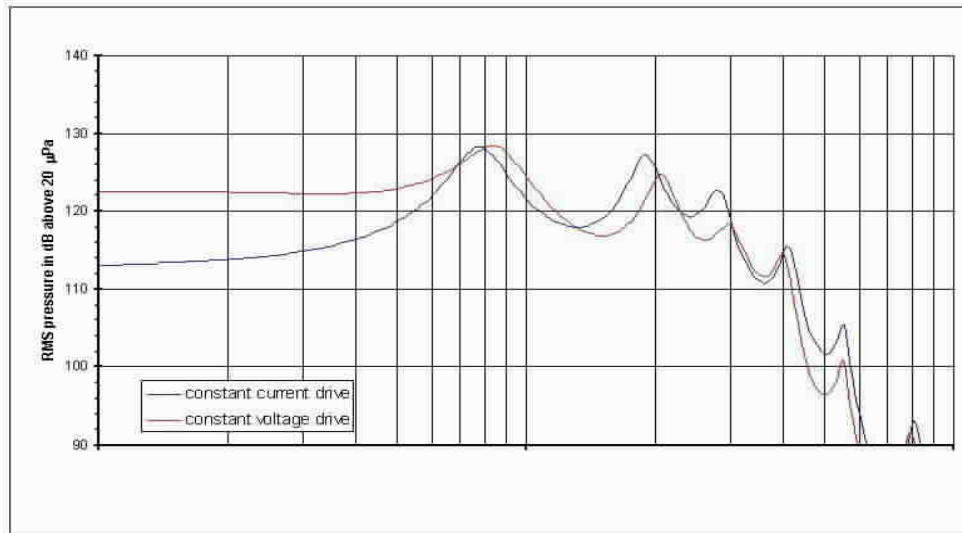


Mechanical Data

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

Typical response curve

Refer to specifications section for measurement conditions.



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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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 1 kOhm source.
Maximum output @ peak frequency		135	138	141	dB	Measured with Voltage drive.

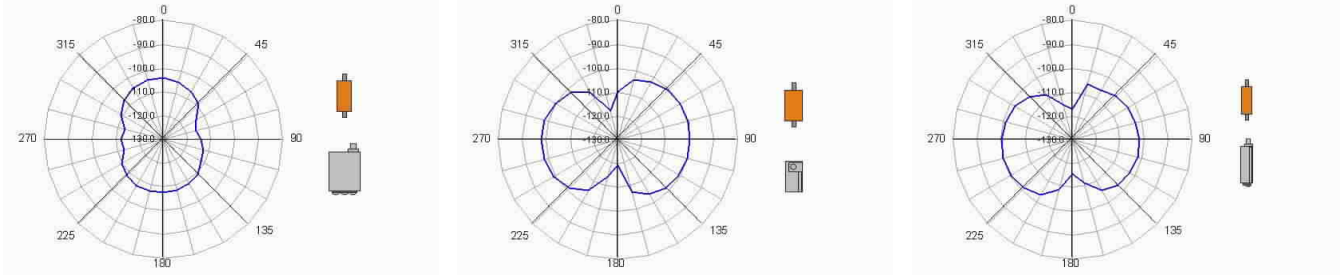
Electric parameters		Min	Typ	Max	Unit	Comments
Impedance @ 1000 Hz		34	40	46	Ohm	
Impedance @ nominal		54	68	81	Ohm	Geometric average 1, 1.6 and 2.5 kHz
DC resistance @ 20 °C		17	20	23	Ohm	
DC bias current range		zero bias				

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

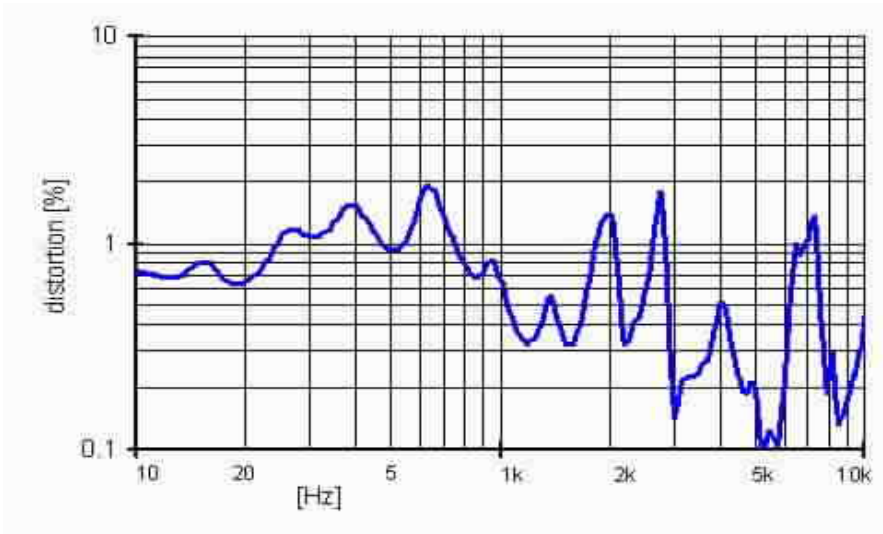
A positive voltage applied to the negative terminal (-) will result in an increase in pressure at the sound outlet.

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Magnetic radiation patterns, radial, typical at 2200 Hz



THD vs Frequency, typical, nominal input



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