

Data Sheet



microphone 8009

3800 - 3003897
Version:4 16-NOV-2006

Description

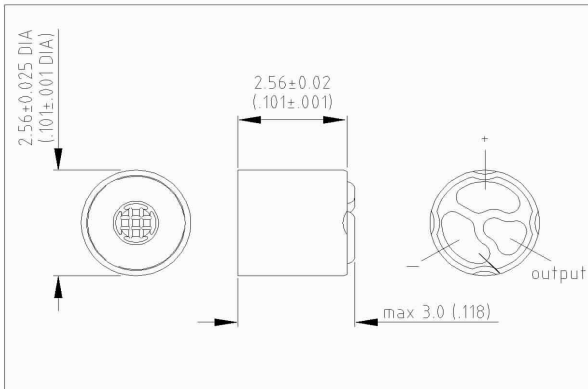
The 8000-series microphone is an omni-directional microphone for use in BTE, ITE or ITC type of hearing instruments. Its cylindrical shape, compact size and spoutless configuration provides for maximum space savings. The microphone has low noise, superior EMI suppression, high ESD protection, and a short dwell time during soldering.



Features

- Flat Frequency Response
- Ideal For Directional Matching Applications
- Superior EMI Protection
- Optimal Performance At 0.9Vdc
- Excellent Soldering Dwell Time

Dimensions in mm (inch)



Typical response curve

The response curve shown below is typical for this microphone in a free field set up, at $V_{supply} = 0.9V$ and open circuit.



Sonion reserves the right to make changes at any time to improve reliability, function or design, in order to provide the best product possible.

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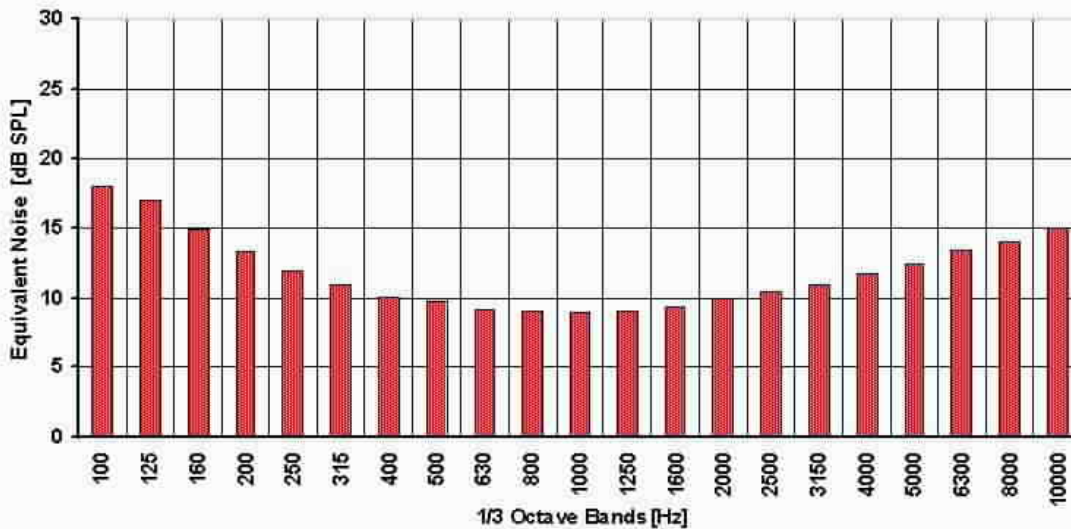
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Specification

All parameters are specified at 0.9V and 1 MOhm // <200pF load impedance, AC-coupled with 1µF, unless specified otherwise. Environmental conditions: 23 °C (73.4F), 50 % RH

Parameters		Min	Typ	Max	Unit	Comments
Sensitivity *	@ 200 Hz	-5	-3	-1	dB	re. 1 kHz value
	@ 1 kHz	-36.5	-33.5	-30.5	dB	re. 1V per Pascal
	@ 10 kHz	0.5	3.5	6.5	dB	re. 1 kHz value
Peak frequency			11		kHz	Approx.
Equivalent noise (A-weighted)			26	28.5	dB SPL	
Power supply feedthrough			-14	-12	dB	
Battery voltage range		0.8	0.9	5	VDC	
Battery drain		10	17	30	µA	
Output impedance **		3	4.5	6	kOhm	
Input-referred vibration sensitivity			66		dB SPL/g	1 kHz ref. acc. in axial direction
Sensitivity change with humidity variation			2	4	dB/%RH	30 - 90 % RH
Input-referred EMI noise	0.8-0.96 GHz			30	dB SPL	according SMI 255, E=75 V/m
	1.8-2.0 GHz			30	dB SPL	according SMI 255, E=75 V/m
	1.4-2.0 GHz			40	dB SPL	according SMI 255, E=50 V/m
Operating temperature range		-17	23	63	°C	
Storage temperature range		-40		63	°C	
ESD protection level: Class 3 according to MIL-STD-750D, test method 1020,2. Apply protection in accordance with IEC 61340-5-1 and 61340-5-2.						
* 1 kHz sensitivity at 1.3 VDC supply: -32.5 dB re. 1V/Pa typ.						
** Output impedance at 1.3 VDC supply : 3 kOhm typ.						

Typical 1/3 octave equivalent noise



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