

1. INTRODUCTION

- Analog MEMS Microphone
- Single Mode
- Bottom Port Type - Sensitivity is Typical -38dBV/Pa
- **High Signal to Noise Ratio(SNR) – Typical 66.5dB (A-weighted, 20Hz~20kHz)**
- **Narrow Sensitivity – +/-1dB**
- Omni-directional
- RF Shielded - with embedded Capacitor
- Compatible with Sn/Pb and Halogen-free solder process
- RoHS compliant
- SMD reflow temperature of up to 260°C for over 30 seconds



2. ELECTRO-ACOUSTIC CHARACTERISTICS

Parameter	Absolute maximum rating	Units
Vdd to Ground	3.6	V
OUT to Ground	-0.3 to Vdd+0.3	V
Input Current to Any Pin	1	mA

Test Condition : 23 ± 2°C, Room Humidity = 55 ± 20 %, VDD=2.0V, unless otherwise noticed.

Parameter	Conditions	Min	Typ	Max	Units
Directivity		Omni-directional			
Operating Voltage (Vdd)		1.6	-	3.6	V
Sensitivity Change across Voltage	Vdd=1.6V~3.6V	No Change			dB
Sensitivity (S)	94dB SPL at 1kHz, 0dB=1V/Pa	-39	-38	-37	dBV/Pa
Output Impedance (Zout)	94dB SPL at 1kHz	-	-	300	Ω
Current Consumption (Idd)	Vdd=1.6~3.6V	70	-	170	μA
Signal to Noise Ratio (SNR)	94dB SPL at 1kHz, A-weighted (20Hz~20kHz)	-	66.5	-	dB(A)
Equivalent Input Noise (EIN)	94dB SPL at 1kHz, A-Weighted (20Hz~20kHz)	-	27.5	-	dB(A) SPL
Power Supply Rejection (PSR)	100mVp-p square wave at 217Hz, Vdd=1.8V, A-weighted	-	-103.5	-	dBV(A)
Power Supply Rejection Ratio (PSRR)	200mVp-p sine wave at 1kHz, Vdd=1.8V	-	72	-	dB
Total Harmonic Distortion (THD)	94dB SPL at 1kHz	-	-	0.3	%
	107.5dB SPL at 1kHz	-	-	1.0	
	116.5dB SPL at 1kHz	-	-	3.0	
	121.5dB SPL at 1kHz	-	-	5.0	
Acoustic Overload Point (AOP)	THD>10% at 1kHz	123	124	-	dB SPL
DC Output Voltage	Vdd=1.6~3.6V	-	0.90	-	V
Start-up time	Vdd=1.6~3.6V	0.1	-	100	ms

