

## CM03M-03S42-MA-3

Former P/N: CM03OS-0342-A3

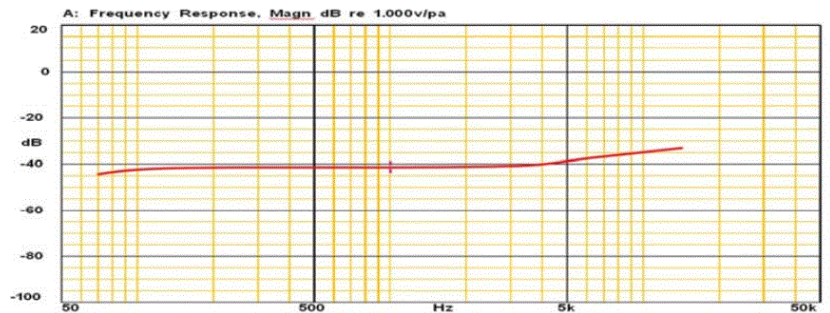
Rev. 4-2024  
RoHS3 & REACH  
Omni Directional Microphones



### Operating Characteristics

#### ELECTRICAL

Type	Analog
Rated Voltage	2 VDC
Operating Voltage	1.5 to 3.6 VDC
Capacitance	N/A
Max Current	0.1 mA
Impedance	300 Ω



#### ACOUSTIC @ 94dB; 1000 Hz; Rated Voltage

Technology	MEMS
Directionality	Omni Directional
Sensitivity	-42 ± 3 dBV/Pa
Power Supply Rejection*	-105 dBV
*Tested At 100m VPP Square-wave@217Hz, A-weighted	
Acoustic Overload Point	130 dB SPL
Total Harmonic Distortion	10% Max
Min S/N	59 dB

### Physical Characteristics

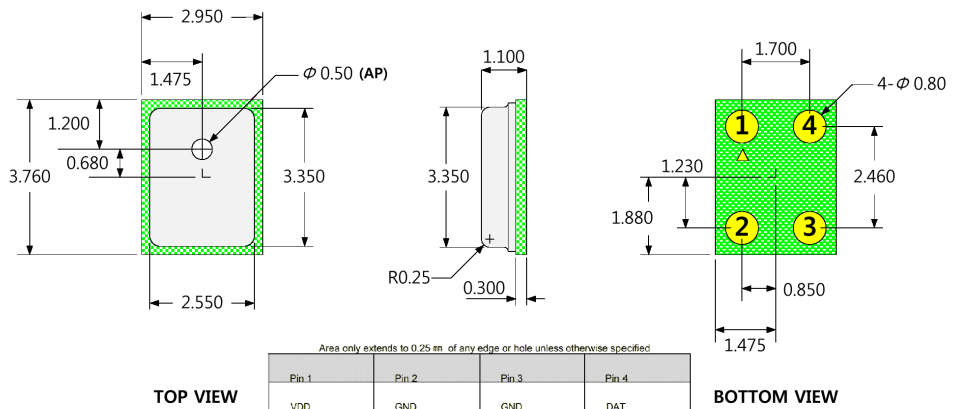
#### MATERIAL

Solder Pads	Gold Plated Copper Foil
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#### TEMPERATURE RANGES

Operating	-40 to +100 °C
Storage	-40 to +100 °C

Weight	0.03 g
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General tolerance = ±0.1 mm and all measurements in mm unless otherwise noted.

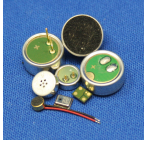
Revision	Description	By	Date
3-2020	Added solder pad pin out. Corrected sensitivity from 42 dB to -42 dBV/Pa.	JL	2020-02-07
4-2024	Added power supply rejection, acoustic overload point, total harmonic distortion, reflow profile, and packaging information.	AL	2024-04-16

Warranty: For a period of one (1) year from date of shipping under normal operations conditions. This warranty does not apply to products damaged through misuse, abuse, improper installation, alteration, rework, or attempt to repair.

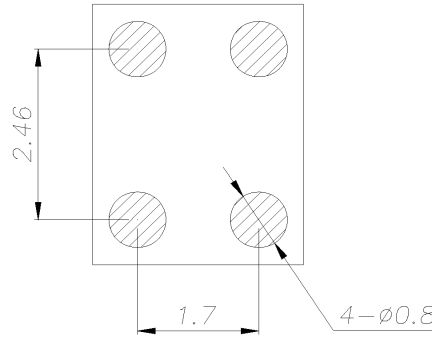
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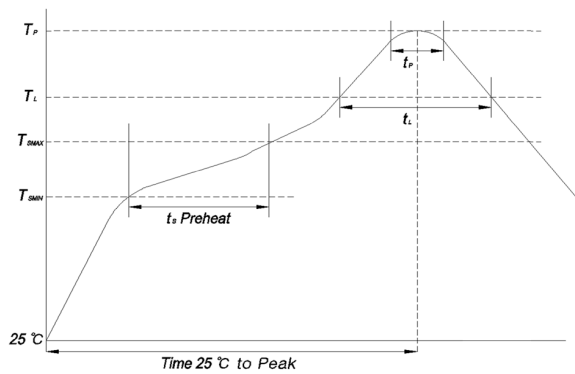
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## Recommended Footprint

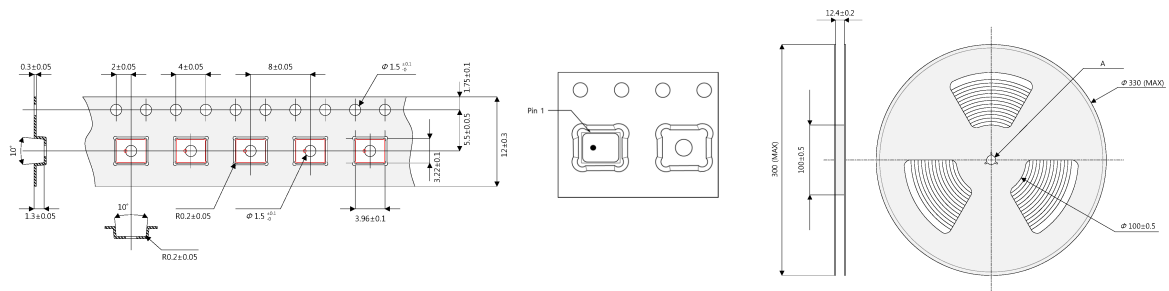


## Recommended Reflow Profile



Profile Feature		Lead(Pb) Free Solder
Preheat	Temperature min. (T <sub>SMIN</sub> )	150 °C
	Temperature max. (T <sub>SMAX</sub> )	200 °C
	Time (t <sub>s</sub> )	60-120 Seconds
Liquidous	Temperature (T <sub>L</sub> )	217 °C
	Time (t <sub>l</sub> )	60-150 Seconds
Peak	Temperature (T <sub>P</sub> )	260 °C
	Time within 5 C of actual peak temperature (t <sub>p</sub> )	30 Seconds Max.
Ramp up	Average ramp up rate T <sub>SMAX</sub> to T <sub>P</sub>	3 °C / Second Max.
Ramp down	Average ramp down rate T <sub>P</sub> to T <sub>SMAX</sub>	6 °C / Second Max.
Time 25 °C to Peak temperature		8 Minutes Max.

## Tape & Reel Packaging



5k pieces per reel

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