

CM02M-03S38-MA-6

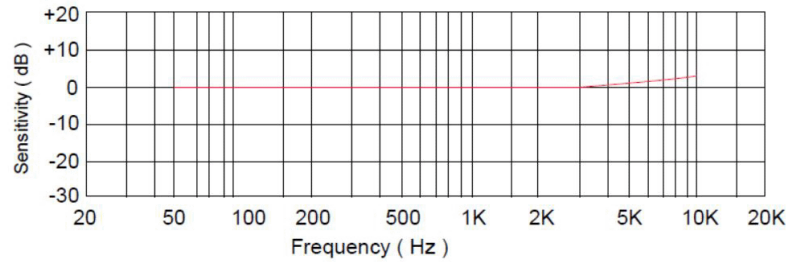
Rev. 0-2025
RoHS3 & REACH
Omni Directional Microphones



Operating Characteristics

ELECTRICAL

Type	Analog
Rated Voltage	2 VDC
Operating Voltage	1.6 to 3.6 VDC
Capacitance	N/A
Max Current	0.25 mA
Impedance	250 Ω



ACOUSTIC @ 94dB; 1000 Hz; Rated Voltage

Technology	MEMS
Directionality	Omni Directional
Sensitivity	-38 \pm 1 dBV/Pa
Power Supply Rejection*	-102 dBv
<small>*Tested At 100mVpp Squarewave @217 Hz, A-weighted</small>	
Acoustic Overload Point	128 dB SPL
Total Harmonic Distortion	0.5% Max
Min S/N	60 dB

Physical Characteristics

MATERIAL

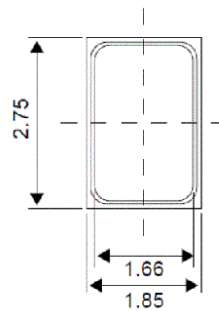
Solder Pads	Gold Plated Copper
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TEMPERATURE RANGES

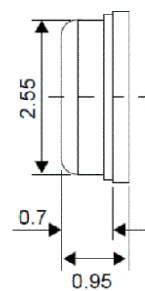
Operating	-40 to +80 $^{\circ}$ C
Storage	-40 to +100 $^{\circ}$ C

Weight	0.018 g
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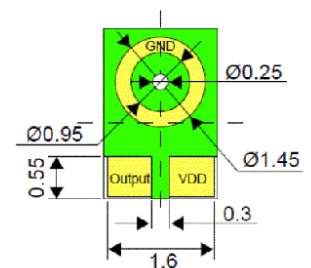
TOP VIEW



SIDE VIEW



BOTTOM VIEW



General tolerance = \pm 0.5 mm and all measurements in mm unless otherwise noted.

Revision	Description	By	Date
0-2025	Original Specification	KG	2025-02-12

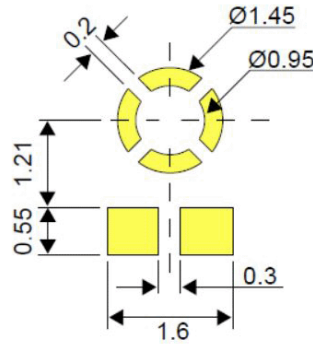
Warranty: For a period of one (1) year from date of shipping under normal operations conditions. This warranty does not apply to products damaged through misuse, abuse, improper installation, alteration, rework, or attempt to repair.

The information contained herein is believed to be correct, but no guarantee or warranty, express or implied, with respect to accuracy, completeness or results is extended and no liability is assumed. Challenge Electronics reserves the right to make changes in any specification, data or material contained herein.

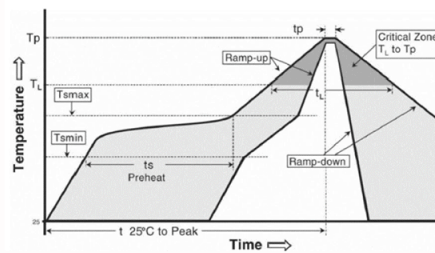
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Recommended Footprint



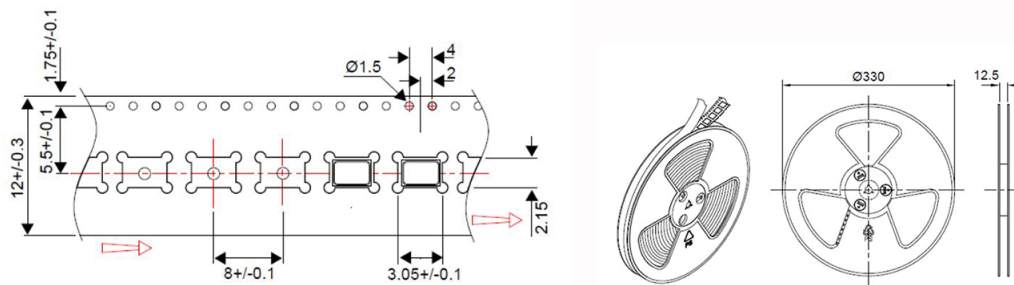
Recommended Reflow Profile



Notes:

1. Pulling vacuum over acoustical hole of the microphone is not allowed, because the device can be damaged by vacuum.
2. Wash the board after reflow process is not allowed, because board washing and cleaning agents can damage the device. Device should not be exposed to ultrasonic processing or cleaning.
3. Recommended number of reflow is no more than 3 times.

Tape & Reel Packaging



5,700PCS Per Reel, 4 Reels Per Inner Box, 4 Inner Boxes Per Carton, 91,200PCS Per Carton

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