

MODEL: CMEJ-0413-42-SMT-TR | **DESCRIPTION:** ELECTRET CONDENSER MICROPHONE

FEATURES

- omnidirectional
- low profile
- surface mount


ELECTRICAL

parameter	conditions/description	min	typ	max	units
directivity	omnidirectional				
sensitivity (S)	at 1 kHz (0 dB = 1 V/Pa)	-45	-42	-39	dB
supply voltage (V _{DD})		1.0	2.0	10	V
current consumption	V _{DD} = 2.0 V, R _L = 2.2 k Ω			0.5	mA
sensitivity reduction	V _{DD} = 2.0 ~ 1.5 V			3	dB
frequency (f)		100		10,000	Hz
signal to noise ratio (S/N)	at 1 kHz, P _{in} = 1 Pa (A-weighted)		60		dB
total harmonic distortion (THD)	at 94 dB SPL, 1 kHz at 115 dB SPL, 1 kHz			1 3	% %
acoustic overload point (AOP)	at 1 kHz			115	dB SPL
output impedance (Z _{out})	at 1 kHz			2.2	k Ω

Notes: 1. All specifications measured at 20 \pm 2 $^{\circ}$ C, humidity at 60~70%, unless otherwise noted.

ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature		-40		70	$^{\circ}$ C
storage temperature		-40		85	$^{\circ}$ C
operating humidity	non-condensing	30		85	%
storage humidity	non-condensing	30		75	%
RoHS	yes				

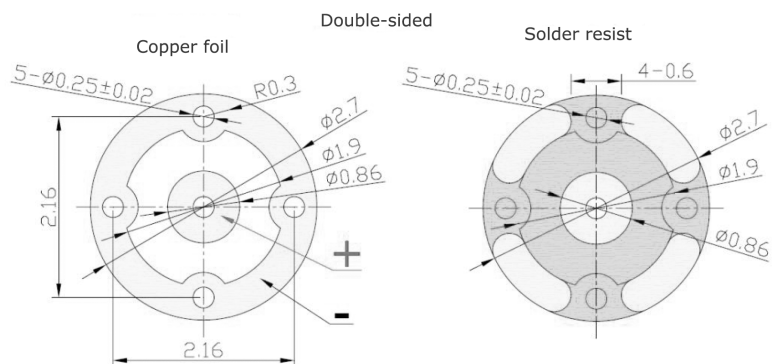
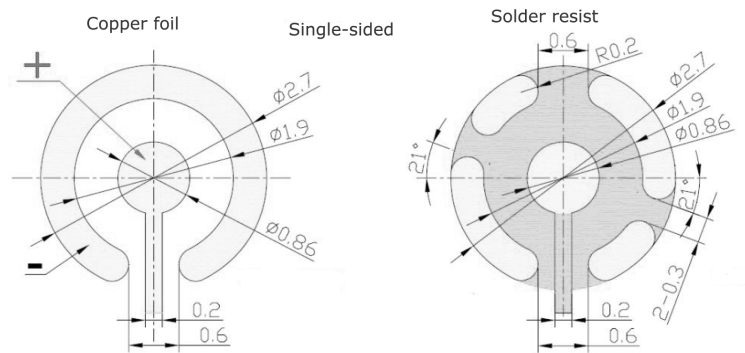
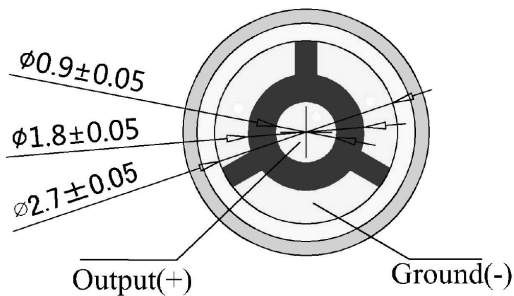
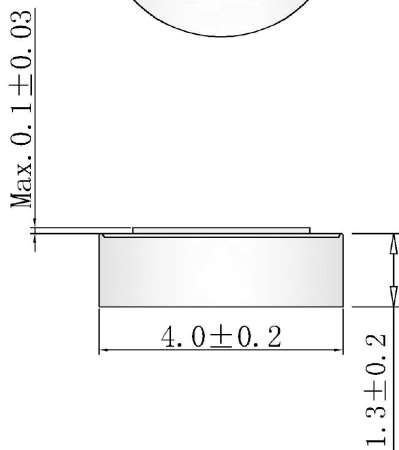
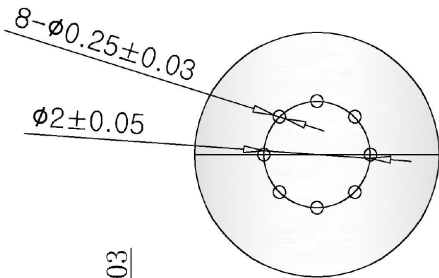
MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	Ø4.0 x 1.3				mm
acoustic port	top				
terminals	surface mount				
weight			0.07		g

MECHANICAL DRAWING

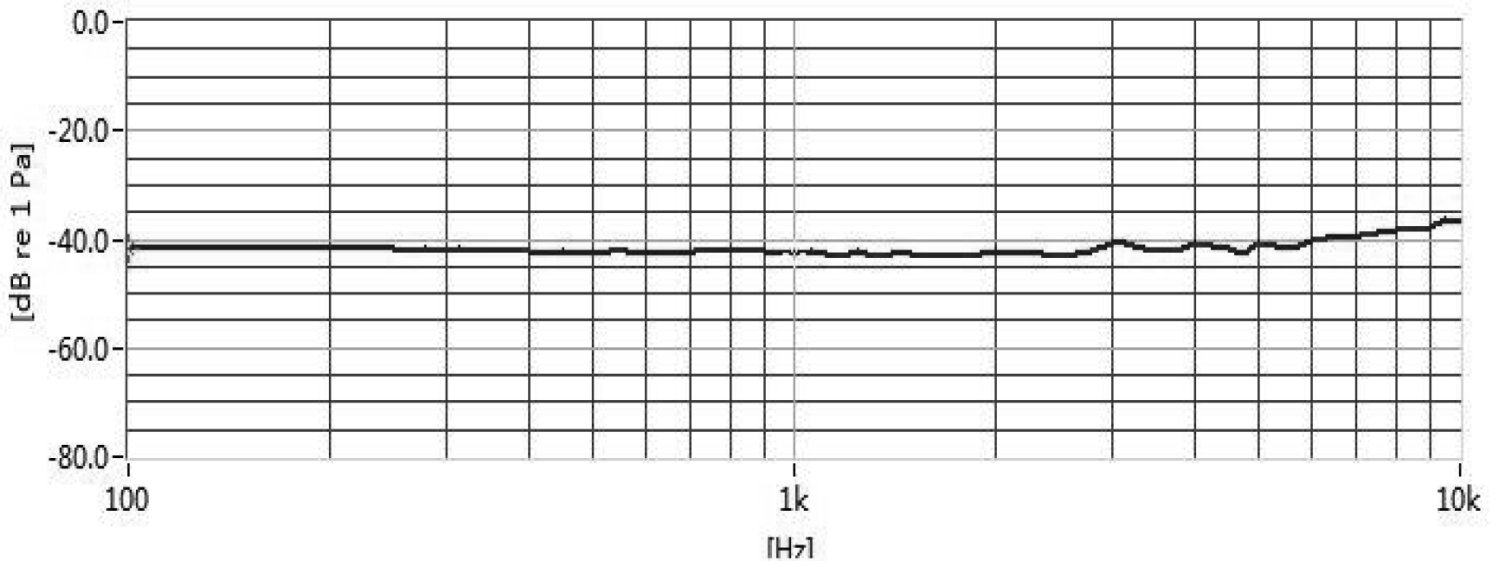
units: mm
tolerance: ±0.2 mm

TERMINAL CONNECTIONS	
TERM.	FUNCTION
1	Output (+)
2	GND (-)

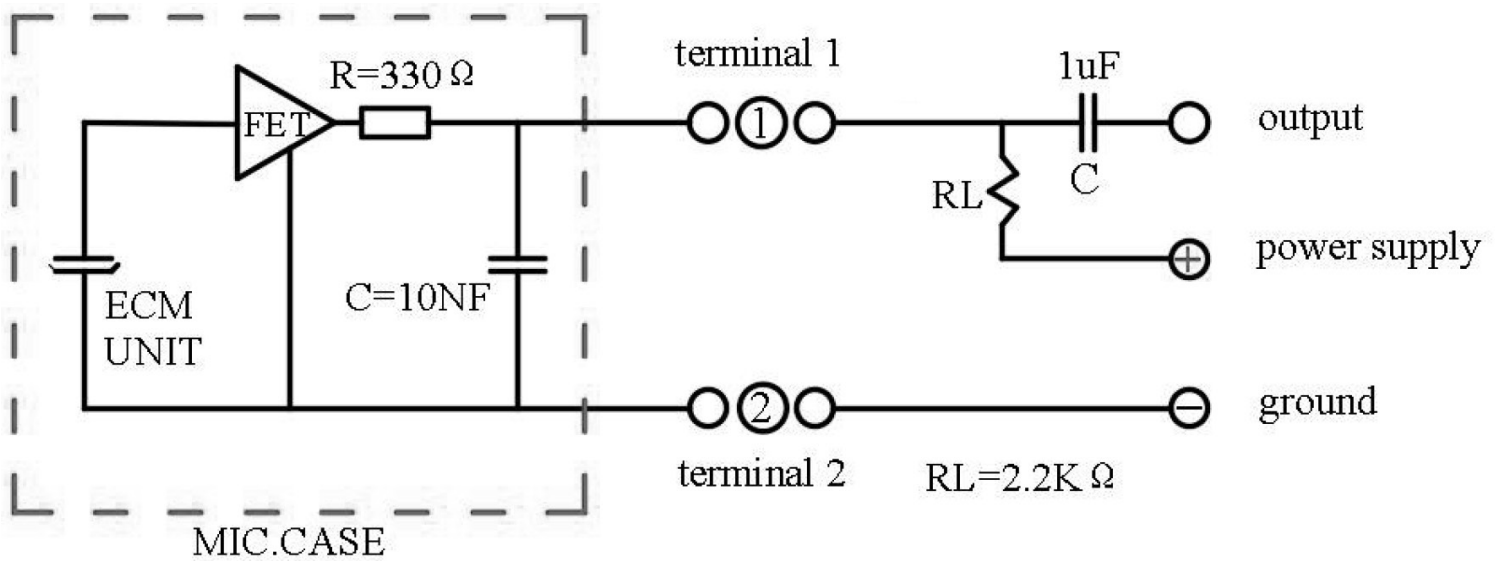


Recommended PCB Layout
Top View

FREQUENCY RESPONSE CURVE



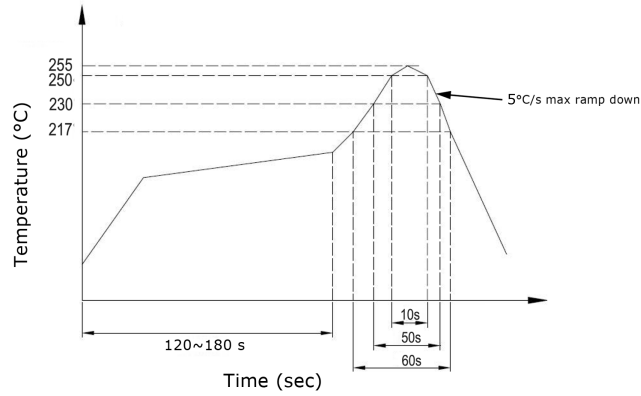
APPLICATION CIRCUIT



SOLDERABILITY

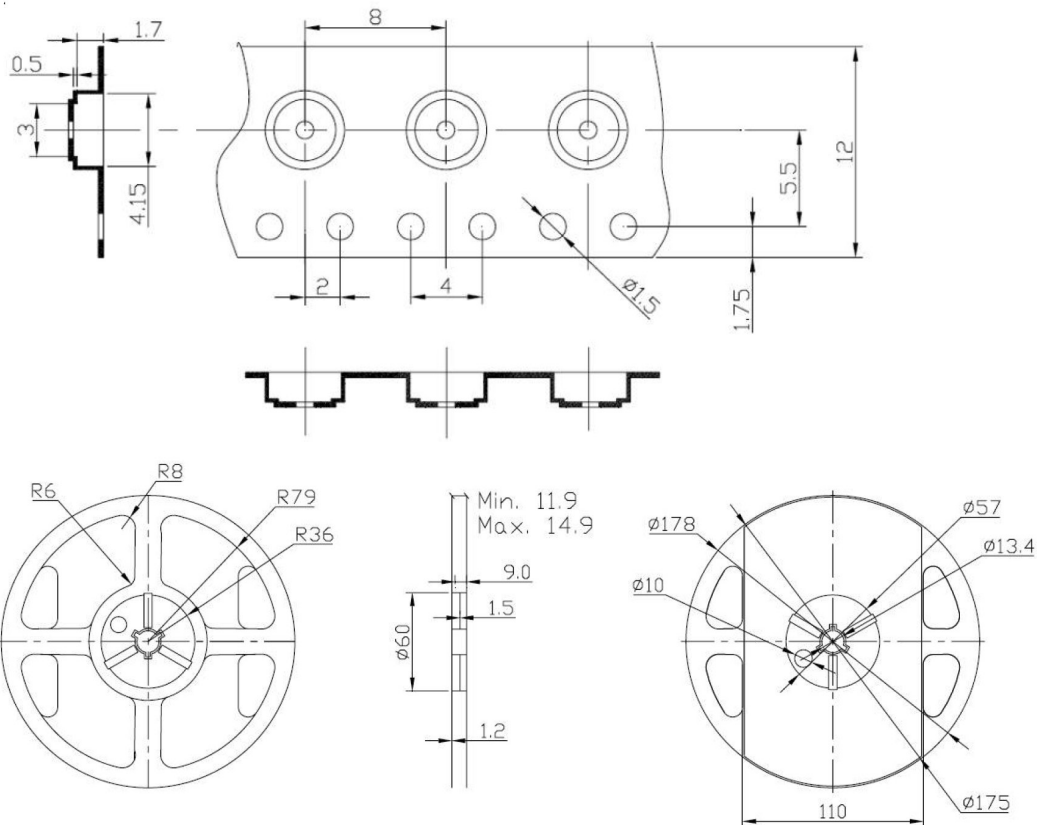
parameter	conditions/description	min	typ	max	units
reflow soldering	see reflow profile		255	260	°C

- Note:
1. Vacuuming over acoustical hole is not allowed.
 2. Not suitable for wash process.
 3. Not recommended to exceed 2 reflow cycles.



PACKAGING

parameter	conditions/description	min	typ	max	units
reel size	Ø175 mm max				
reel QTY	1,000 pcs per reel				



REVISION HISTORY

rev.	description	date
1.0	initial release	06/07/2019

The revision history provided is for informational purposes only and is believed to be accurate.



Headquarters
20050 SW 112th Ave.
Tualatin, OR 97062
800.275.4899

Fax 503.612.2383
cui.com
techsupport@cui.com

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