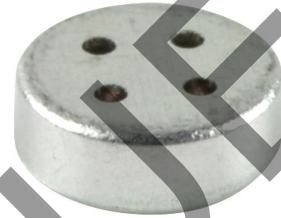


MODEL: CMC-4013-SMT-TR | **DESCRIPTION:** ELECTRET CONDENSER MICROPHONE**FEATURES**

- omnidirectional
- low profile
- surface mount
- tape and reel packaging

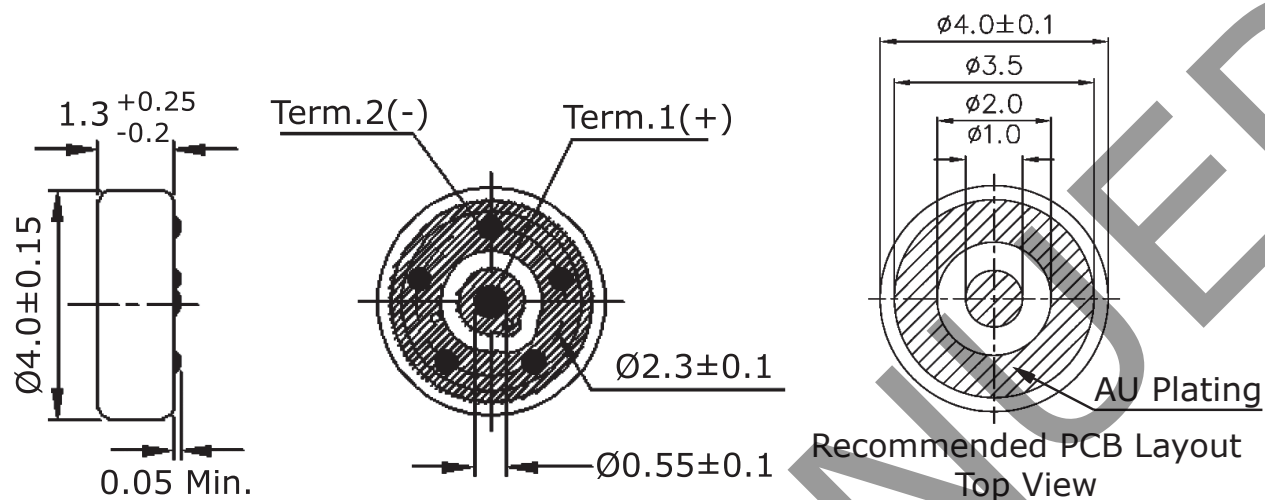
**SPECIFICATIONS**

parameter	conditions/description	min	typ	max	units
directivity	omnidirectional				
sensitivity (S)	f = 1 kHz, 1 Pa, 0 dB = 1 V/Pa	-45	-42	-39	dB
standard operating voltage (Vs)			2		Vdc
max operating voltage				10	Vdc
output impedance (Zout)	f = 1 kHz, 1 Pa		2.2		kΩ
sensitivity reduction (ΔS-Vs)	f = 1 kHz, 1 Pa, Vs = 2.0 ~ 1.5 Vdc		-3		dB
frequency (f)		100		20,000	Hz
current consumption (IDSS)	Vs = 2.0 Vdc, RL = 2.2 kΩ			0.5	mA
signal to noise ratio (S/N)	f = 1 kHz, 1 Pa, A-weighted		58		dBa
dimensions	Ø4.0 x 1.3				mm
material	Al				
terminal	SMT type				
weight				0.04	g
operating temperature		-20		70	°C
storage temperature		-20		70	°C
RoHS	yes				

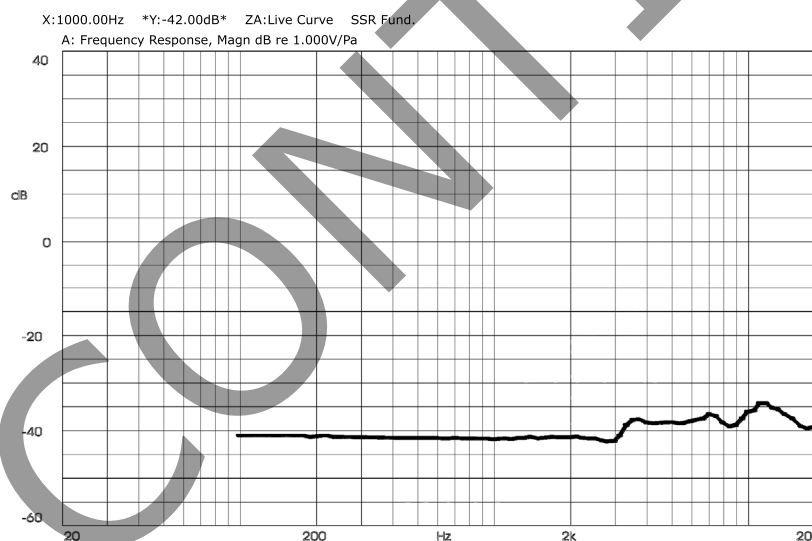
Notes: 1. We use the "Pascal (Pa)" indication of sensitivity as per the recommendation of I.E.C. (International Electrotechnical Commission). The sensitivity of "Pa" will increase 20 dB compared to the "ubar" indication. Example: -60 dB (0 dB = 1 V/ubar) = -40 dB (1 V/Pa)
2. All specifications measured at 5~35°C, humidity at 45~85%, under 86~106 kPa pressure, unless otherwise noted.

MECHANICAL DRAWING

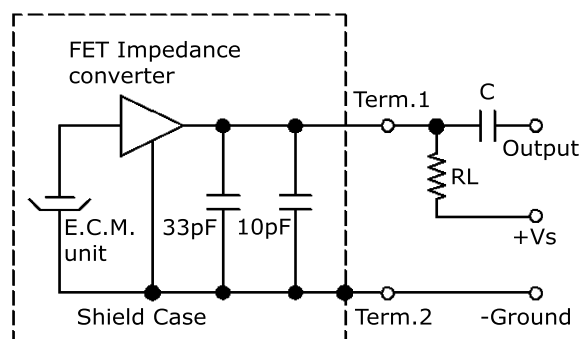
units: mm



FREQUENCY RESPONSE CURVE



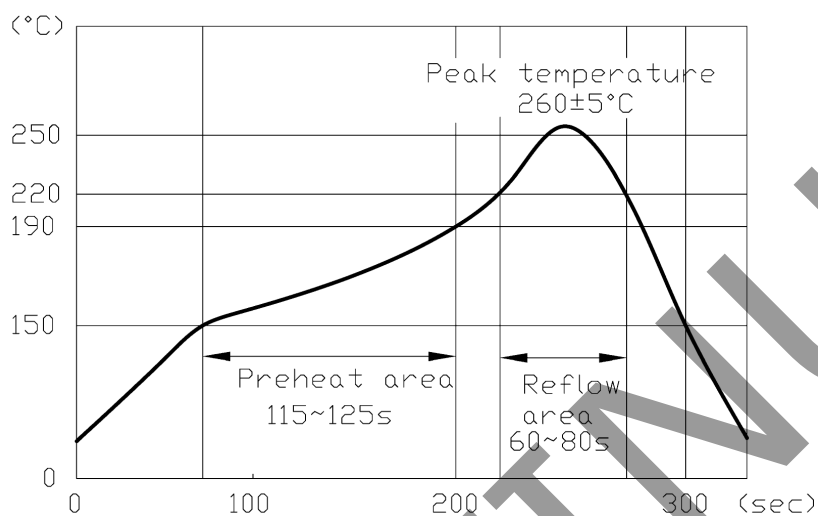
MEASUREMENT CIRCUIT



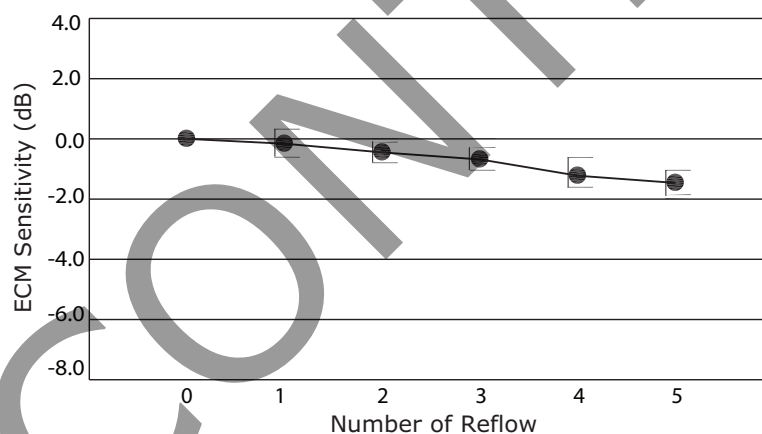
$RL = 2.2 \text{ k}\Omega$
 $C = 1 \text{ }\mu\text{F}$

SOLDERABILITY

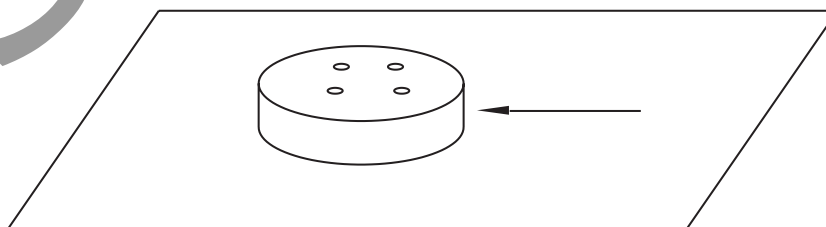
parameter	conditions/description	min	typ	max	units
reflow soldering	see reflow soldering profile	255	260	265	°C



Number of Reflow vs. ECM Sensitivity



Horizontal Loading



Note: 1. When soldered to PCB, must have >10 N resistance to horizontal loading.

PACKAGING

units: mm

Reel Size: Ø330 mm

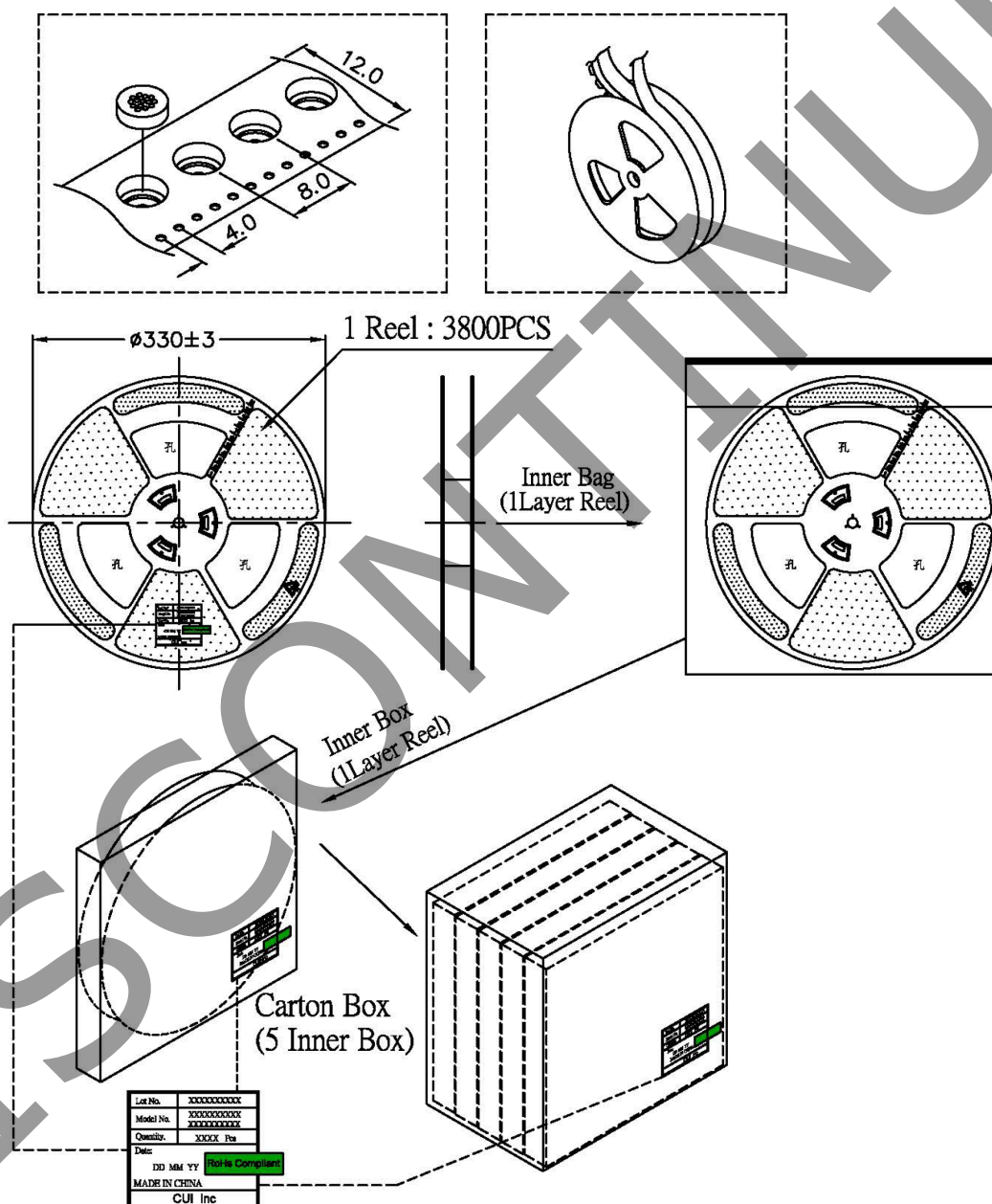
Inner Box Size: 340 x 340 x 30 mm

Carton Box Size: 340 x 170 x 340 mm

Reel QTY: 3,800 pcs per reel

Inner Box QTY: 3,800 pcs per box

Carton Box QTY: 19,000 pcs per carton



REVISION HISTORY

rev.	description	date
1.0	initial release	11/28/2016
1.01	added packaging label to reel	06/28/2019
1.02	brand update	01/09/2020

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

CUI DEVICES

CUI Devices offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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CUI Devices products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.