

**MODEL:** CMC-4013-2-SMT-TR | **DESCRIPTION:** ELECTRET CONDENSER MICROPHONE**FEATURES**

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

**SPECIFICATIONS**

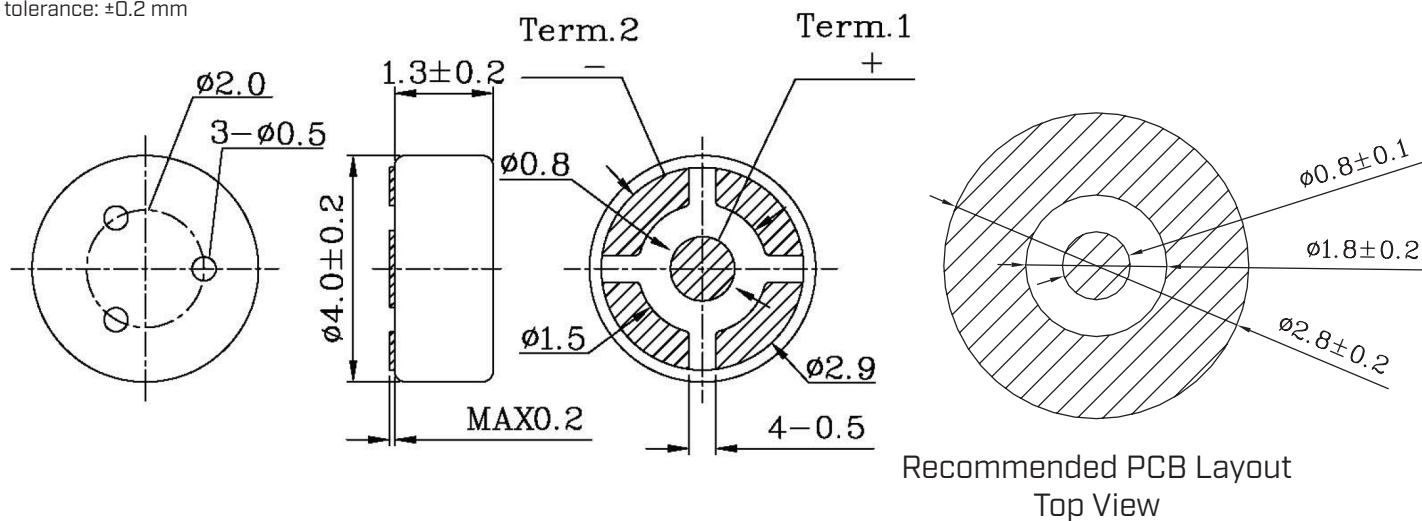
| parameter                               | conditions/description              | min | typ | max    | units      |
|-----------------------------------------|-------------------------------------|-----|-----|--------|------------|
| directivity                             | omnidirectional                     |     |     |        |            |
| 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 |        | k $\Omega$ |
| sensitivity reduction [ $\Delta$ S-Vs]  | f = 1 kHz, 1 Pa, Vs = 3.0 ~ 2.0 Vdc |     | -3  |        | dB         |
| frequency [f]                           |                                     | 20  |     | 20,000 | Hz         |
| current consumption [I <sub>0SS</sub> ] | Vs = 2.0 Vdc, RL = 2.2 k $\Omega$   |     |     | 0.5    | mA         |
| signal to noise ratio [S/N]             | f = 1 kHz, 1 Pa, A-weighted         |     | 58  |        | dBA        |
| acoustic overload point [AOP]           | THD<3%                              |     |     | 105    | dB SPL     |
| dimensions                              | Ø4.0 x 1.3                          |     |     |        | mm         |
| material                                | zinc white copper                   |     |     |        |            |
| terminal                                | SMT type                            |     |     |        |            |
| weight                                  |                                     |     |     | 0.065  | g          |
| operating temperature                   |                                     | -20 |     | 70     | °C         |
| storage temperature                     |                                     | -20 |     | 70     | °C         |
| RoHS                                    | yes                                 |     |     |        |            |

Notes:

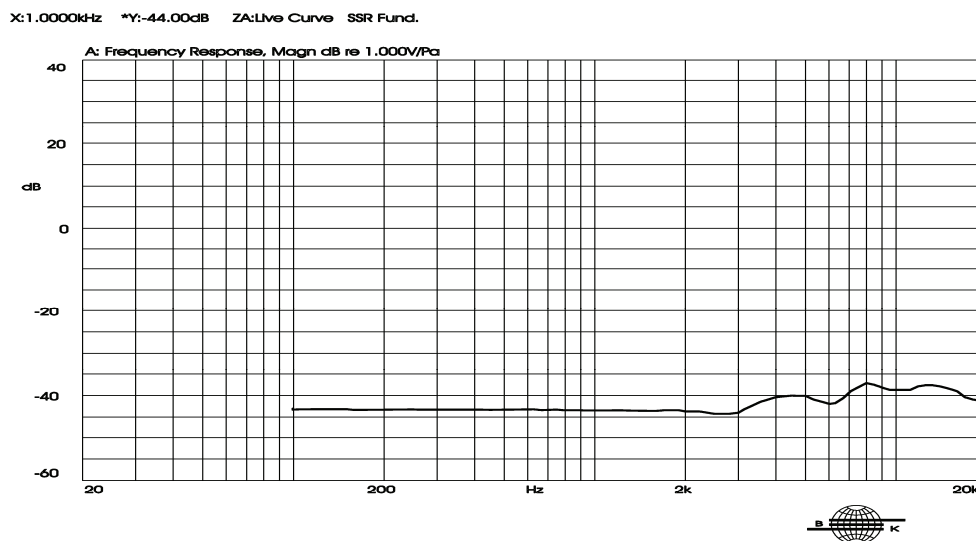
1. We use the "Pascal [Pa]" indication of sensitivity as per the recommendation of I.E.C. (International Electrotechnical Commission). The sensitivity of "Pa" will increase 20 dB compared to the "ubar" indication. Example: -60 dB (0 dB = 1 V/ubar) = -40 dB (1 V/Pa)
2. All specifications measured at 5-35°C,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

## MECHANICAL DRAWING

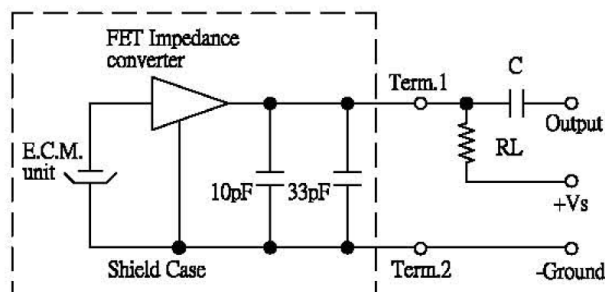
units: mm  
tolerance:  $\pm 0.2$  mm



## FREQUENCY RESPONSE CURVE



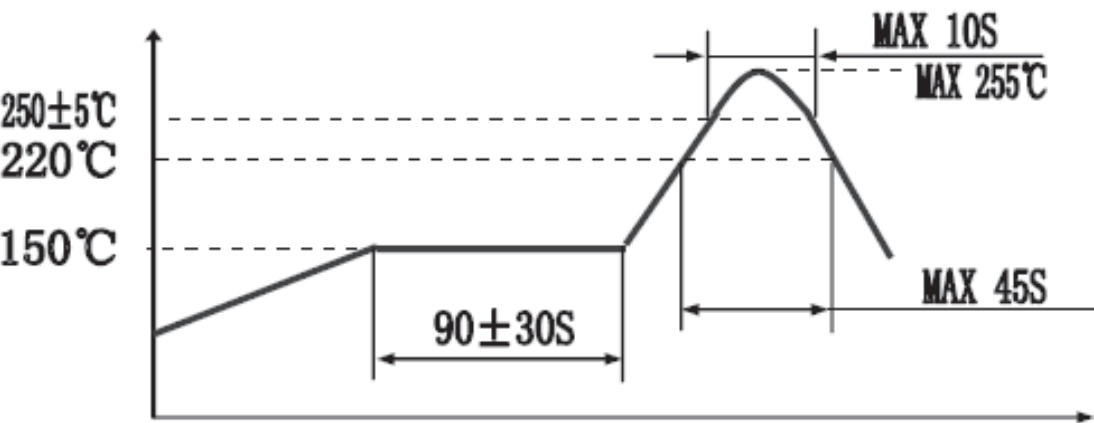
## MEASUREMENT CIRCUIT



RL = 2.2 k $\Omega$

SOLDERABILITY

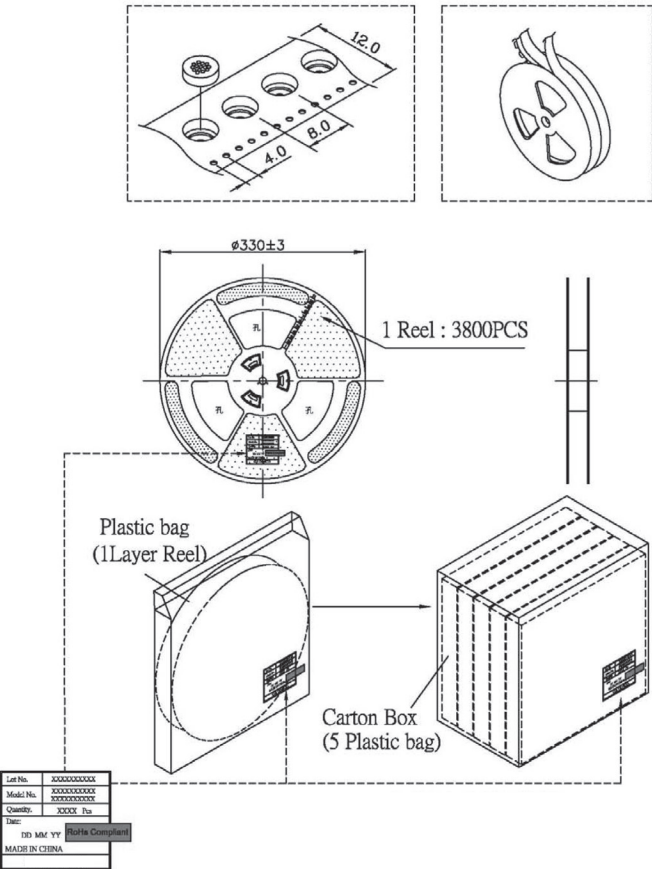
| parameter        | conditions/description       | min | typ | max | units |
|------------------|------------------------------|-----|-----|-----|-------|
| reflow soldering | see reflow soldering profile | 245 | 250 | 255 | °C    |



PACKAGING

units: mm

Reel Size: Ø330 mm  
Inner Bag Size: 340 x 340 x 30 mm  
Carton Box Size: 340 x 170 x 340 mm  
Reel QTY: 3,800 pcs per reel  
Inner Bag QTY: 3,800 pcs per box  
Carton Box QTY: 19,000 pcs per carton



REVISION HISTORY

| rev. | description                       | date       |
|------|-----------------------------------|------------|
| 1.0  | initial release                   | 04/23/2021 |
| 1.01 | updated packaging                 | 08/05/2021 |
| 1.02 | logo, datasheet style update      | 08/05/2022 |
| 1.03 | CUI Devices rebranded to Same Sky | 09/11/2024 |

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



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

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Same Sky 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.

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