

**MODEL:** CMI-4537-SN69 | **DESCRIPTION:** ELECTRET CONDENSER MICROPHONE

**FEATURES**

- unidirectional
- 9.7 mm diameter
- solder pads


**SPECIFICATIONS**

| parameter                              | conditions/description              | min  | typ | max    | units        |
|----------------------------------------|-------------------------------------|------|-----|--------|--------------|
| directivity                            | unidirectional                      |      |     |        |              |
| sensitivity [S]                        | f = 1 kHz, 1 Pa, 0 dB = 1 V/Pa      | -40  | -37 | -34    | dB           |
| standard operating voltage [Vs]        |                                     |      | 1.5 |        | Vdc          |
| max operating voltage                  |                                     |      |     | 9      | Vdc          |
| output impedance [Zout]                | f = 1 kHz, 1 Pa                     | 1.26 | 1.8 | 2.34   | k $\Omega$   |
| sensitivity reduction [ $\Delta$ S-Vs] | f = 1 kHz, 1 Pa, Vs = 1.5 ~ 1.1 Vdc |      | -3  |        | dB           |
| frequency [f]                          |                                     | 100  |     | 12,000 | Hz           |
| current consumption [IDSS]             | Vs = 1.5 Vdc, RL = 2.0 k $\Omega$   |      |     | 0.4    | mA           |
| signal to noise ratio [S/N]            | f = 1 kHz, 1 Pa, A-weighted         |      | 69  |        | dBA          |
| dimensions                             | $\varnothing$ 9.7 x 4.5             |      |     |        | mm           |
| material                               | AL                                  |      |     |        |              |
| terminal                               | solder pads                         |      |     |        |              |
| weight                                 |                                     |      |     | 0.8    | g            |
| operating temperature                  |                                     | -20  |     | 70     | $^{\circ}$ C |
| storage temperature                    |                                     | -20  |     | 70     | $^{\circ}$ C |
| RoHS                                   | yes                                 |      |     |        |              |

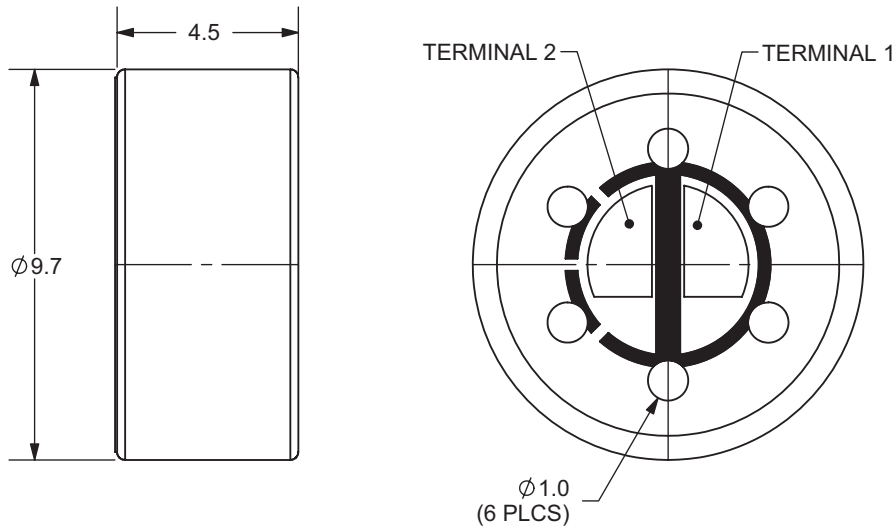
Notes: 1. We use the "Pascal [Pa]" indication of sensitivity as per the recommendation of I.E.C. (International Electrotechnical Commission). The sensitivity of "Pa" will increase 20 dB compared to the "ubar" indication. Example: -60 dB (0 dB = 1 V/ubar) = -40 dB (1V/Pa)  
 2. All specifications measured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

**SOLDERABILITY**

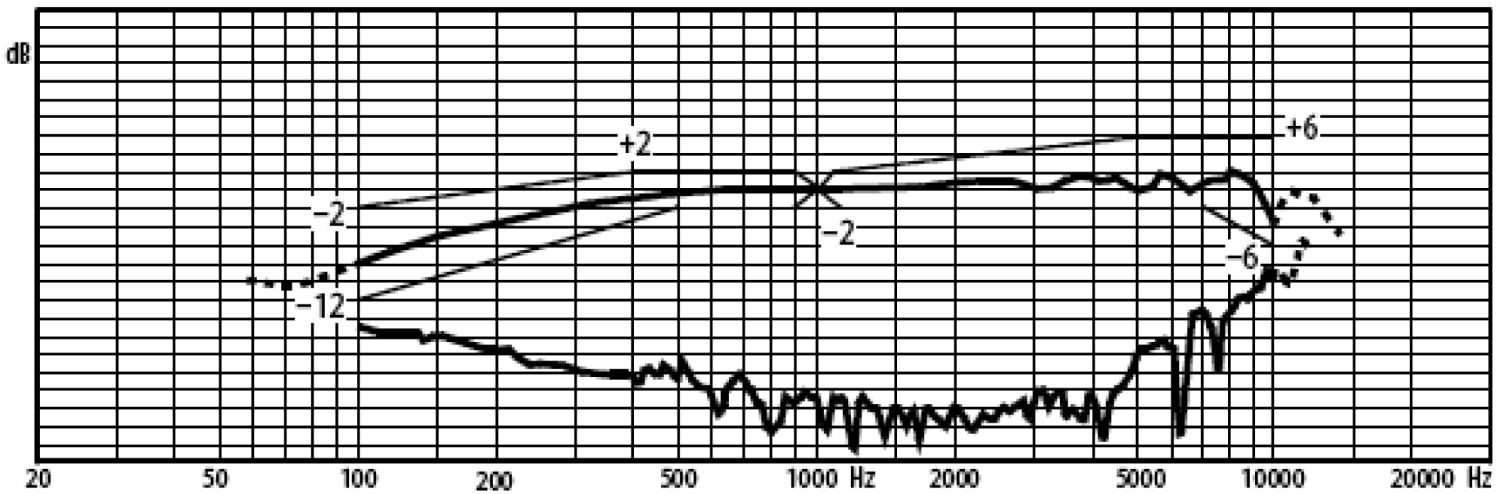
| parameter      | conditions/description  | min | typ | max | units        |
|----------------|-------------------------|-----|-----|-----|--------------|
| hand soldering | for 2 $\pm$ 0.5 seconds | 310 | 320 | 330 | $^{\circ}$ C |

## MECHANICAL DRAWING

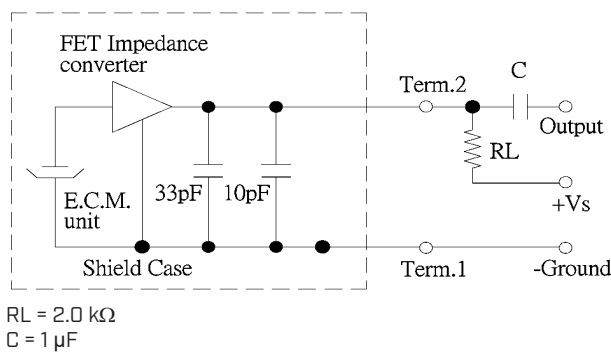
units: mm  
tolerance:  $\pm 0.2$  mm



## FREQUENCY RESPONSE CURVE



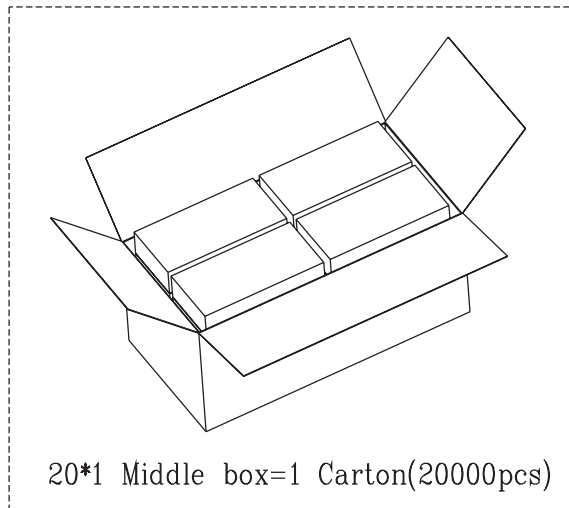
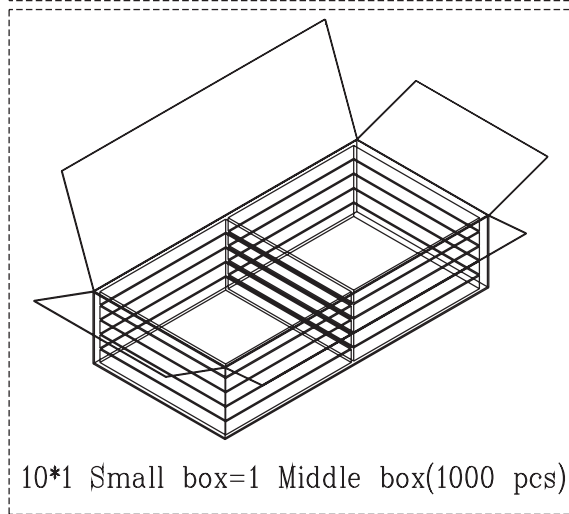
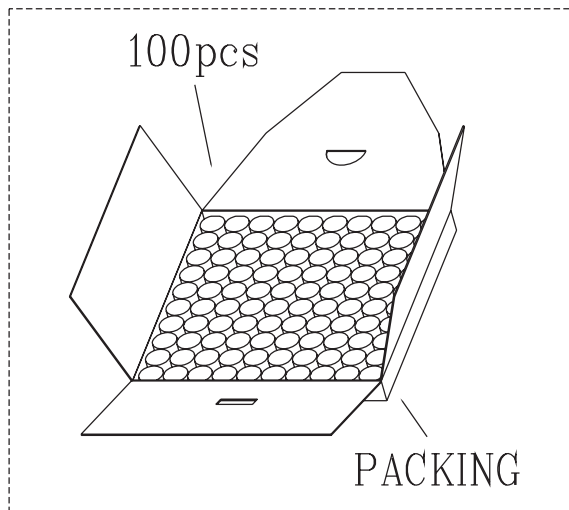
## APPLICATION CIRCUIT



## PACKAGING

units: mm

Inner Box Size: 100 x 100 x 10 mm  
Outer Box Size: 420 x 230 x 255 mm  
Inner Box QTY: 100 pcs per box  
Outer Box QTY: 20,000 pcs per box



## REVISION HISTORY

| rev. | description                  | date       |
|------|------------------------------|------------|
| 1.0  | initial release              | 06/01/2008 |
| 1.01 | specificaton update          | 06/25/2012 |
| 1.02 | brand update                 | 04/24/2020 |
| 1.03 | logo, datasheet style update | 08/05/2022 |

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



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