

**MODEL: CDS-20144 | DESCRIPTION: SPEAKER**
**FEATURES**

- micro-speaker
- high SPL
- wide operating temp range
- 4 ohm impedance


**SPECIFICATIONS**

| parameter               | conditions/description   | min | typ | max    | units              |
|-------------------------|--|-----|-----|--------|--------------------|
| input power             | maximum power: IEC-60268-5, filter 60s on/120s off, 10 cycles at room temp |     | 1.0 | 1.2    | W                  |
| impedance               | at 2.0 kHz, 1.0 V  | 3.4 | 4   | 4.6    | $\Omega$           |
| resonant frequency (Fo) | at 1.0 V   | 480 | 600 | 720    | Hz                 |
| frequency response      | output SPL -10 dB  | Fo  |     | 20,000 | Hz                 |
| sound pressure level    | at 1.0 W, 0.1 m ave, at 0.8, 1.0, 1.2, 1.5 kHz                             | 89  | 92  | 95     | dB                 |
| distortion              | at 1.0 kHz, 2 V  |     |     | 10     | %                  |
| buzz, rattle, etc.      | must be normal at sine wave between Fo ~ 20 kHz                            |     | 2.0 |        | V                  |
| polarity                | cone will move forward with positive dc current to "+" terminal            |     |     |        |                    |
| dimensions              | 20 x 14 x 3.5  |     |     |        | mm                 |
| magnet                  | Nd-Fe-B  |     |     |        |                    |
| material                | PBT  |     |     |        |                    |
| cone material           | mylar  |     |     |        |                    |
| terminal                | solder pads  |     |     |        |                    |
| weight                  |  |     | 1.6 |        | g                  |
| operating temperature   |  | -30 |     | 70     | $^{\circ}\text{C}$ |
| storage temperature     |  | -40 |     | 85     | $^{\circ}\text{C}$ |
| RoHS                    | 2011/65/EU   |     |     |        |                    |

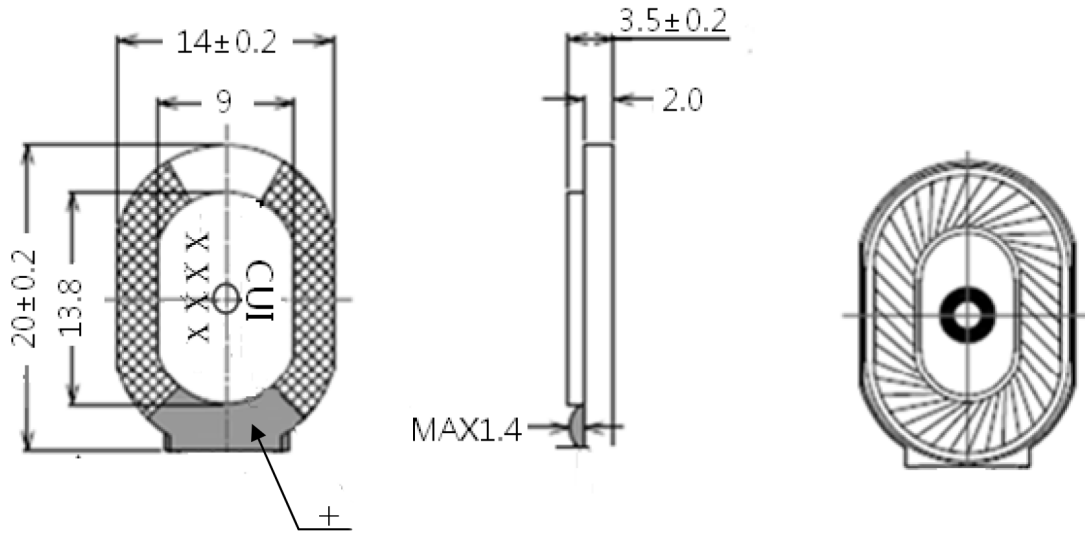
Notes: 1. All specifications measured at 5~35 $^{\circ}\text{C}$ , humidity at 45~85%, under 86~106kPa pressure, unless otherwise noted.

**SOLDERABILITY**

| parameter      | conditions/description | min | typ | max | units              |
|----------------|------------------------|-----|-----|-----|--------------------|
| hand soldering | for maximum 3 seconds  | 370 | 380 | 390 | $^{\circ}\text{C}$ |

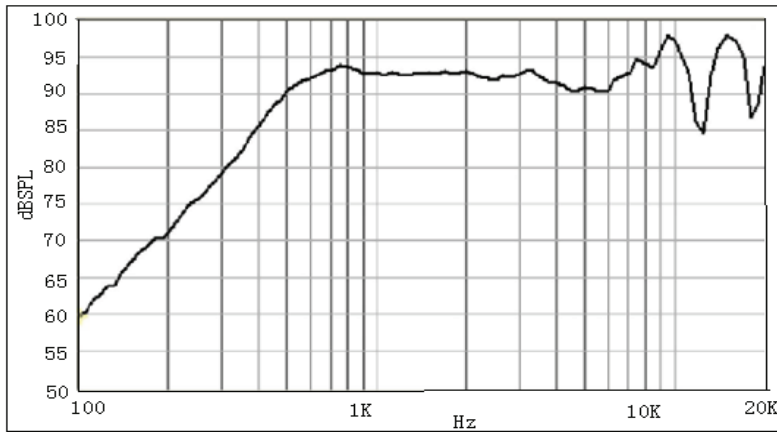
## MECHANICAL DRAWING

units: mm  
tolerance:  $\pm 0.2$  mm

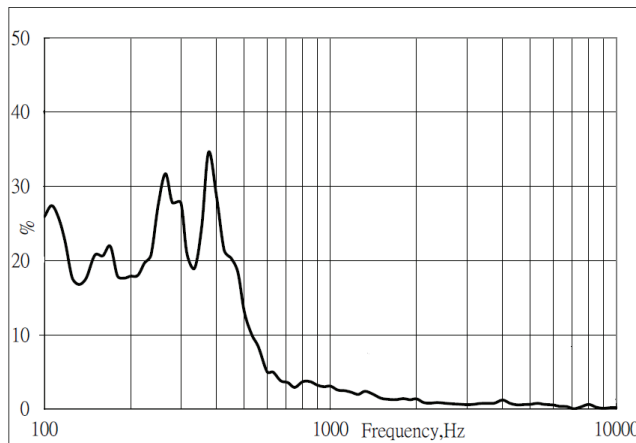


## RESPONSE CURVES

### Frequency Response Curve



### Total Harmonic Distortion Curve



## REVISION HISTORY

---

| rev. | description     | date       |
|------|-----------------|------------|
| 1.0  | initial release | 03/25/2015 |

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

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

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI 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.