

date 08/05/2022

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MODEL: CDS-13138-SMT | DESCRIPTION: SPEAKER

FEATURES

- SMT (surface mount) speaker
- reflow solder capable
- wide operating temp range
- compact size





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 | | 0.7 | 1.0 | W |
| impedance | at 1.5 kHz, 1.0 V | 6.8 | 8 | 9.2 | Ω |
| resonant frequency (Fo) | at 1.0 V | 840 | 1,050 | 1,260 | Hz |
| frequency response | output SPL ±10 dB | Fo | | 20,000 | Hz |
| sound pressure level | at 0.7 W, 0.1 m ave, at 1.0, 1.6, 2.0, 3.2 kHz at 1.0 W, 1.0 m ave, at 1.0, 1.6, 2.0, 3.2 kHz | 84 67 | 87 70 | 90 73 | dB dB |
| distortion | at 2.0 kHz, 0.7 W | | | 5 | % |
| buzz, rattle, etc. | must be normal at sine wave between Fo ~ 20 kHz | | 2.37 | | V |
| dimensions | 13 x 13 x 4.0 | | | | mm |
| magnet | Sm ₂ Co ₁₇ Ø6.0 x 1.0 mm | | | | |
| material | LCP | | | | |
| cone material | PI | | | | |
| terminal | surface mount, Au plating | | | | |
| weight | | | 1.1 | | g |
| operating temperature | | -40 | | 85 | °C |
| storage temperature | | -40 | | 85 | °C |
| washable | yes | | | | |
| RoHS | yes | | | | |

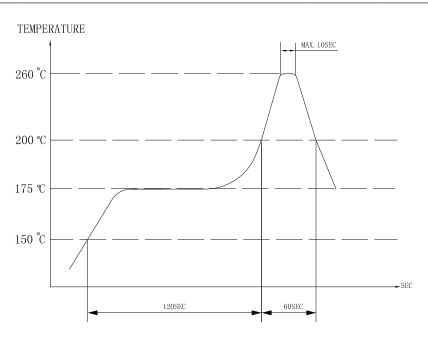
Notes:

^{1.} All specifications measured at 5-35°C, humidity at 45-85%, under 86-106kPa pressure, unless otherwise noted. 2. Add suffix "-TR" to the model for tape and reel packaging.

Additional Resources: Product Page | 3D Model | PCB Footprint

SOLDERABILITY

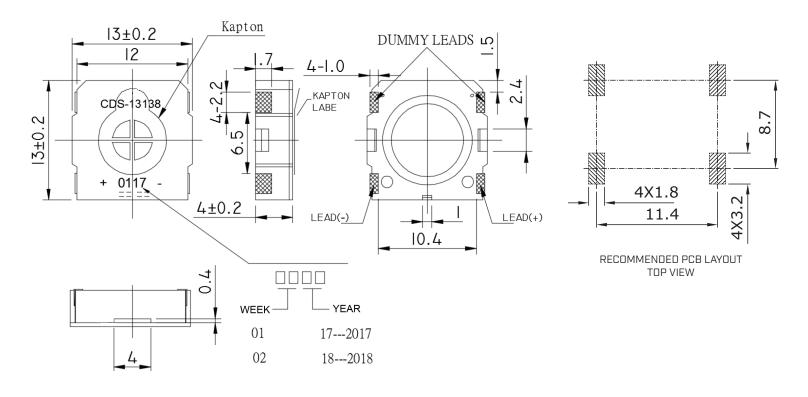
| parameter | conditions/description | min | typ | max | units |
|------------------|------------------------|-----|-----|-----|-------|
| reflow soldering | see reflow profile | | | 260 | °C |



MECHANICAL DRAWING

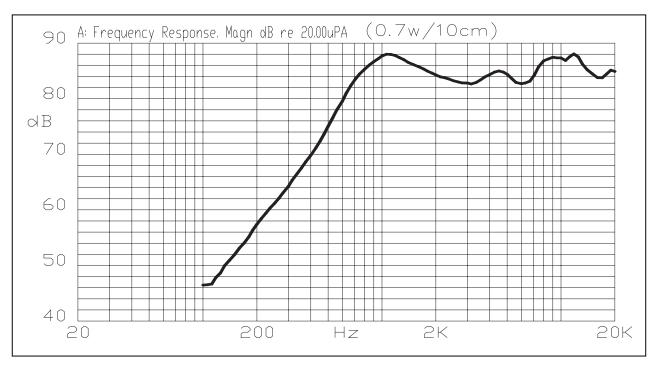
units: mm

tolerance: ±0.25 mm

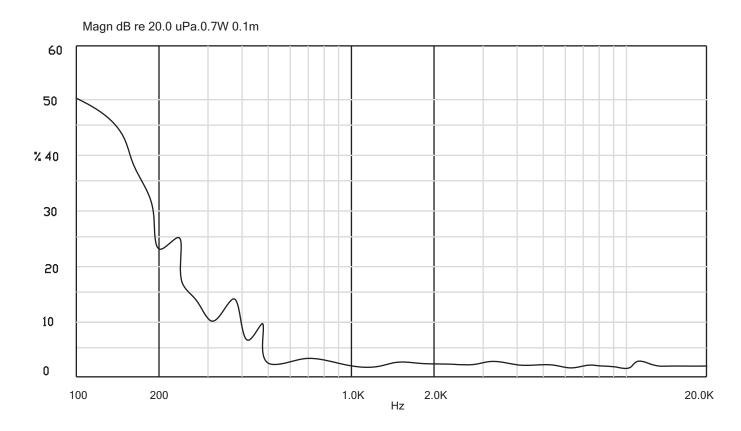


RESPONSE CURVES

Frequency Response Curve



Total Harmonic Distortion Curve



PACKAGING

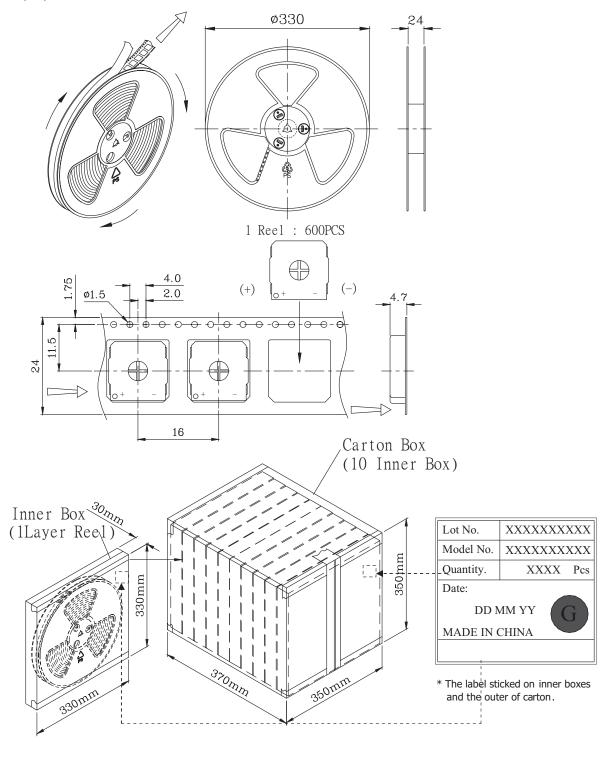
units: mm

Reel Size: Ø330 mm

Inner Box Size: 320 x 330 x 30 mm Carton Size: 370 x 350 x 350 mm Reel QTY: 600 pcs per reel

Inner Box QTY: 600 pcs per inner box

Carton Box QTY: 6,000 pcs per carton box



REVISION HISTORY

| rev. | description | date |
|------|------------------------------|------------|
| 1.0 | initial release | 03/12/2015 |
| 1.01 | added notch to housing | 05/16/2017 |
| 1.02 | changed resonant frequency | 07/18/2017 |
| 1.03 | brand update | 01/20/2020 |
| 1.04 | 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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