

**SERIES:** CMS-2008-018X | **DESCRIPTION:** SPEAKER**FEATURES**

- 280 Hz resonant frequency
- ideal for headsets
- multiple termination options

**SPECIFICATIONS**

| parameter               | conditions/description                                      | min | typ  | max    | units    |
|-------------------------|-------------------------------------------------------------|-----|------|--------|----------|
| input power             | test at EQ voltage                                          |     | 0.10 | 0.15   | W        |
| impedance               | test at EQ voltage, 2 kHz                                   | 6.8 | 8.0  | 9.2    | $\Omega$ |
| resonant frequency (Fo) | test at EQ voltage                                          | 224 | 280  | 336    | Hz       |
| frequency response      |                                                             | Fo  |      | 20,000 | Hz       |
| sound pressure level    | test at EQ voltage, 2 kHz, 5 cm, baffle                     | 87  | 90   | 93     | dB       |
| distortion              | see THD curve                                               |     |      |        |          |
| buzz, rattle, etc.      | must be normal at EQ voltage, sine wave between 0.1~3.4 kHz |     |      |        |          |
| polarity                | cone moves forward w/ positive dc current to "+" terminal   |     |      |        |          |
| dimensions              | 20 x 8 x 3                                                  |     |      |        | mm       |
| magnet                  | Nd-Fe-B                                                     |     |      |        |          |
| frame material          | PPA                                                         |     |      |        |          |
| cone material           | TPU                                                         |     |      |        |          |
| weight                  |                                                             |     | 1.5  |        | g        |
| operating temperature   |                                                             | -20 |      | 65     | °C       |
| storage temperature     |                                                             | -30 |      | 70     | °C       |
| hand soldering          | for 1~2 seconds                                             | 370 | 380  | 390    | °C       |
| RoHS                    | yes                                                         |     |      |        |          |

Notes: 1. All specifications measured at 15~35°C, humidity at 45~85%, under 86~106 kPa pressure, unless otherwise noted.

**PART NUMBER KEY****CMS - 2008 - 018 X**

Base Number

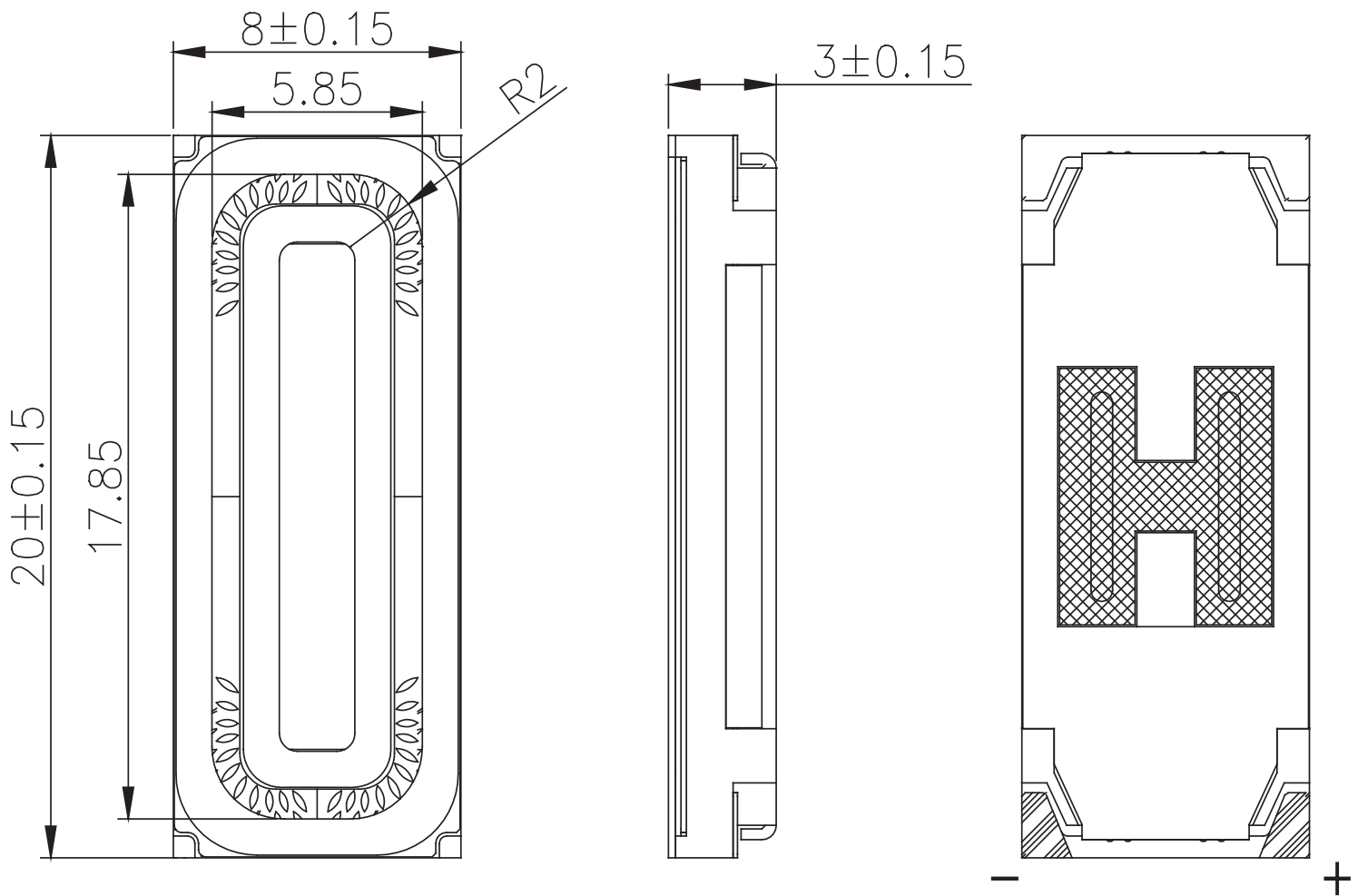
Termination Options:  
SP = solder pads  
L200 = 200 mm wire leads

## EQ VOLTAGE

| Frequency,Hz | Voltage,V | Frequency,Hz | Voltage,V | Frequency,Hz | Voltage,V | Frequency,Hz | Voltage,V |
|--------------|-----------|--------------|-----------|--------------|-----------|--------------|-----------|
| 50           | 0.42      | 236          | 0.61      | 1120         | 0.9       | 5300         | 0.9       |
| 53           | 0.42      | 250          | 0.65      | 1180         | 0.9       | 5600         | 0.9       |
| 56           | 0.42      | 265          | 0.68      | 1250         | 0.9       | 6000         | 0.9       |
| 60           | 0.42      | 280          | 0.7       | 1320         | 0.9       | 6300         | 0.9       |
| 63           | 0.42      | 300          | 0.72      | 1400         | 0.9       | 6700         | 0.9       |
| 67           | 0.41      | 315          | 0.73      | 1500         | 0.9       | 7100         | 0.9       |
| 71           | 0.41      | 335          | 0.74      | 1600         | 0.9       | 7500         | 0.9       |
| 75           | 0.41      | 355          | 0.75      | 1700         | 0.9       | 8000         | 0.9       |
| 80           | 0.41      | 375          | 0.76      | 1800         | 0.9       | 8500         | 0.9       |
| 85           | 0.41      | 400          | 0.79      | 1900         | 0.9       | 9000         | 0.9       |
| 90           | 0.4       | 425          | 0.82      | 2000         | 0.9       | 9500         | 0.9       |
| 95           | 0.4       | 450          | 0.86      | 2120         | 0.9       | 10000        | 0.9       |
| 100          | 0.4       | 475          | 0.9       | 2240         | 0.9       | 10600        | 0.9       |
| 106          | 0.41      | 500          | 0.9       | 2360         | 0.9       | 11200        | 0.9       |
| 112          | 0.41      | 530          | 0.9       | 2500         | 0.9       | 11800        | 0.9       |
| 118          | 0.41      | 560          | 0.9       | 2650         | 0.9       | 12500        | 0.9       |
| 125          | 0.41      | 600          | 0.9       | 2800         | 0.9       | 13200        | 0.9       |
| 132          | 0.41      | 630          | 0.9       | 3000         | 0.9       | 14000        | 0.9       |
| 140          | 0.41      | 670          | 0.9       | 3150         | 0.9       | 15000        | 0.9       |
| 150          | 0.42      | 710          | 0.9       | 3350         | 0.9       | 16000        | 0.9       |
| 160          | 0.43      | 750          | 0.9       | 3550         | 0.9       | 17000        | 0.9       |
| 170          | 0.45      | 800          | 0.9       | 3750         | 0.9       | 18000        | 0.9       |
| 180          | 0.46      | 850          | 0.9       | 4000         | 0.9       | 19000        | 0.9       |
| 190          | 0.48      | 900          | 0.9       | 4250         | 0.9       | 20000        | 0.9       |
| 200          | 0.5       | 950          | 0.9       | 4500         | 0.9       |              |           |
| 212          | 0.53      | 1000         | 0.9       | 4750         | 0.9       |              |           |
| 224          | 0.57      | 1060         | 0.9       | 5000         | 0.9       |              |           |

**MECHANICAL DRAWING (SOLDER PAD)**

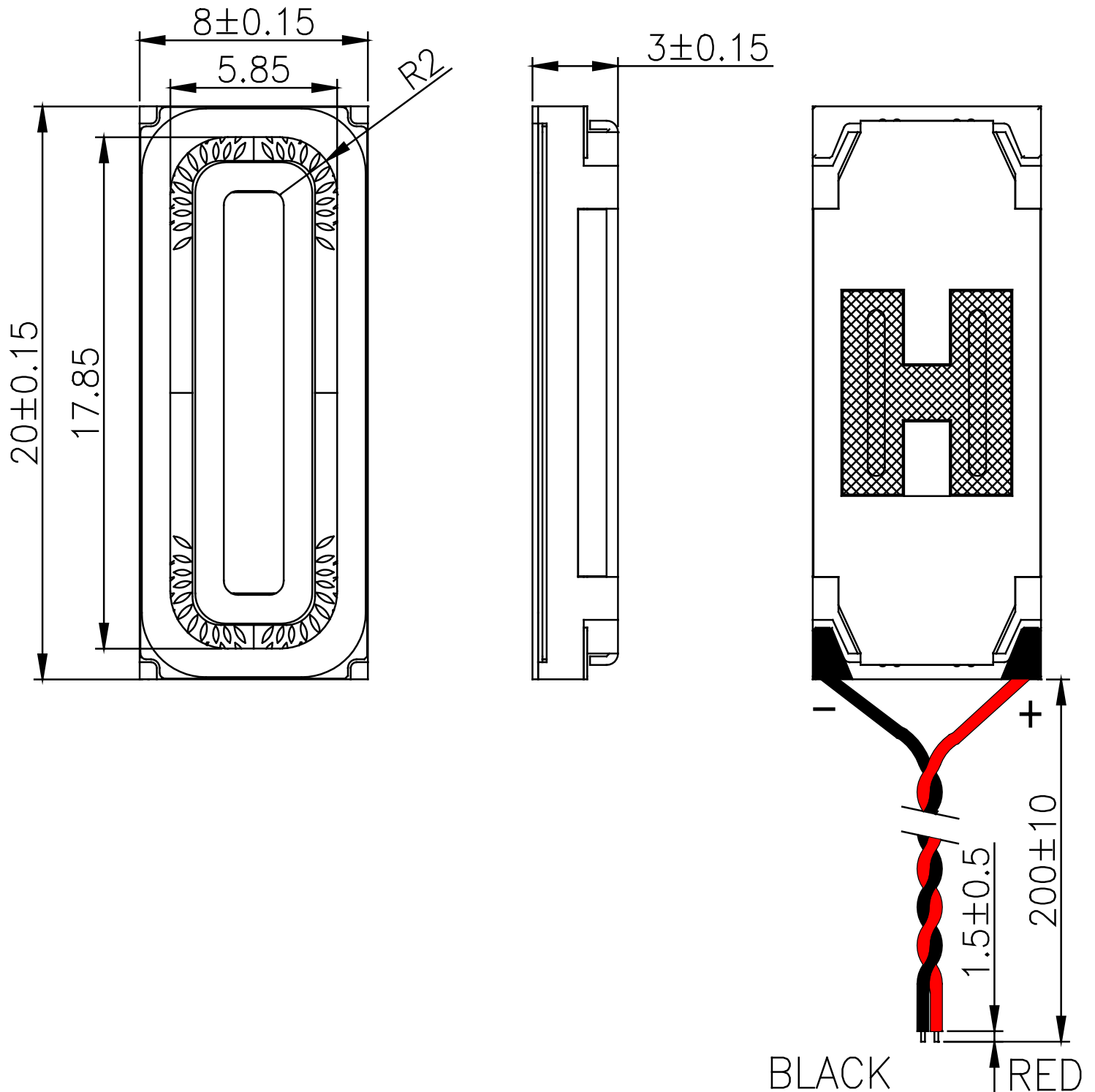
units: mm  
tolerance:  $\pm 0.2$  mm



## MECHANICAL DRAWING (WIRE LEADS)

units: mm  
tolerance:  $\pm 0.2$  mm

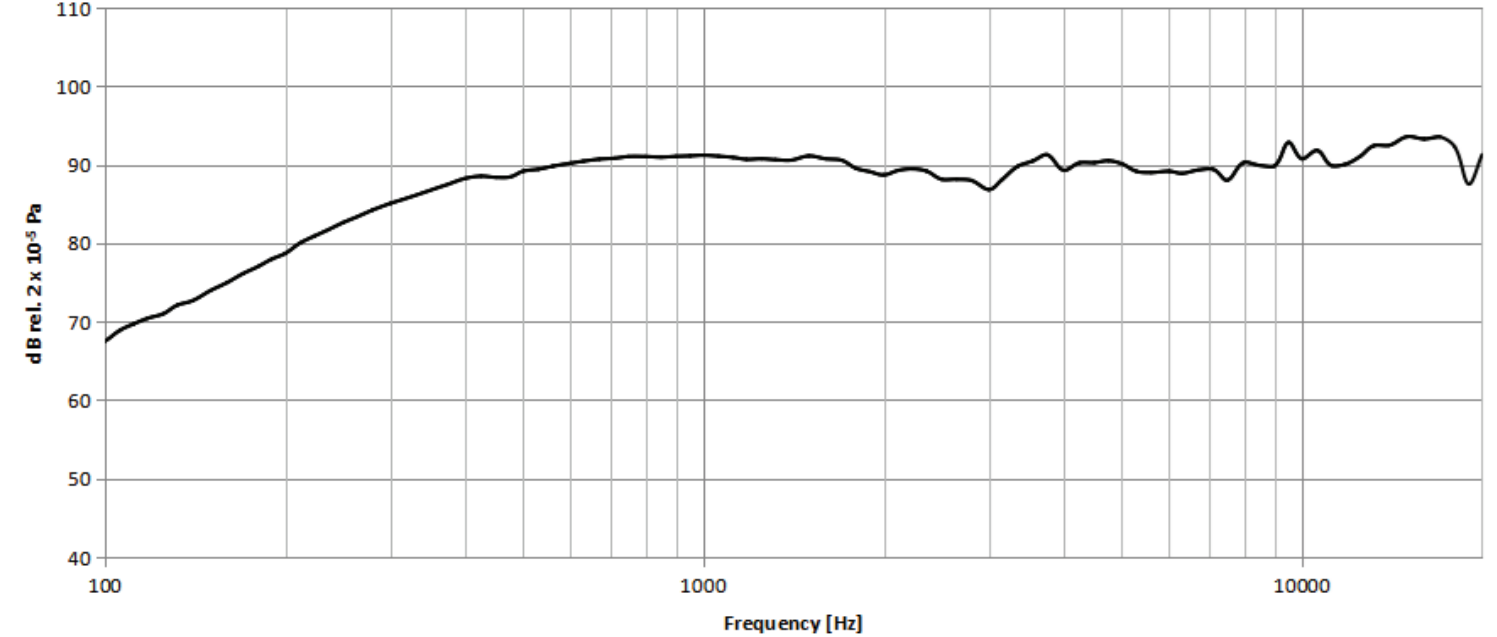
wire: UL1571 32 AWG



RESPONSE CURVES

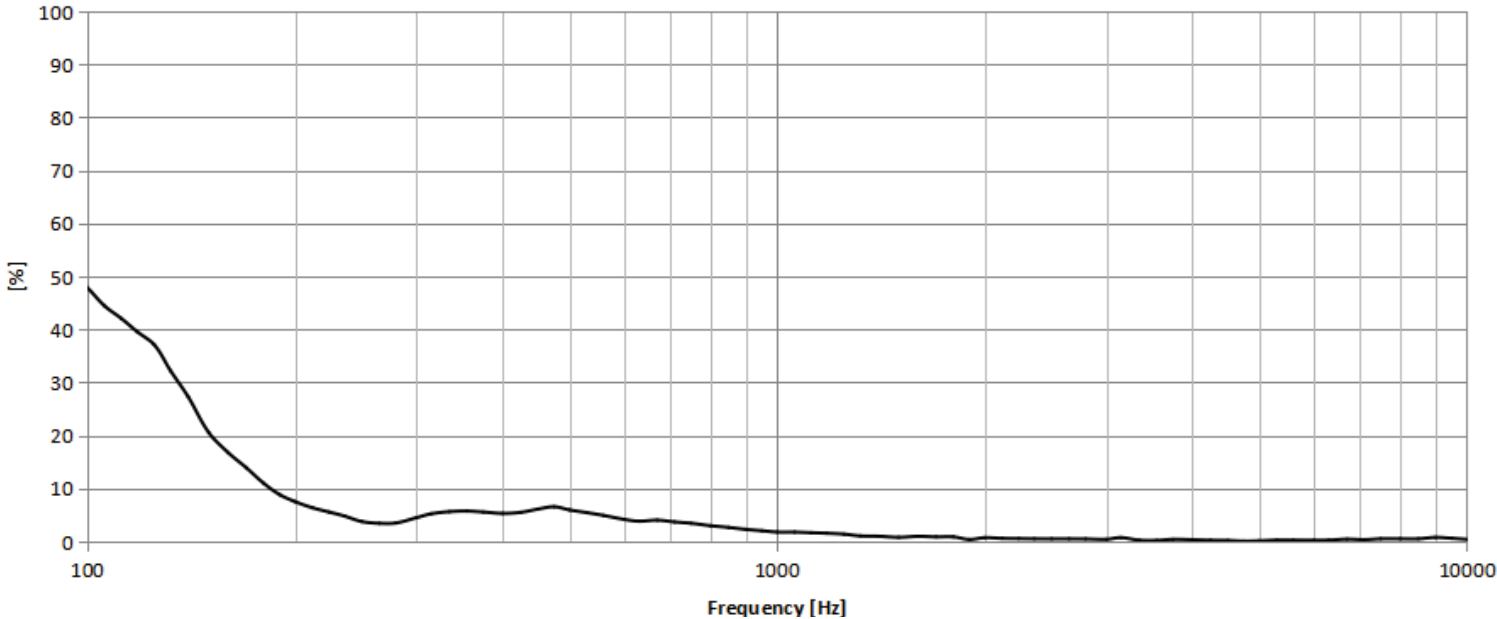
Frequency Response Curve

Test Conditions: EO voltage/5 cm/baffle



Total Harmonic Distortion Curve

Test Conditions: EQ voltage/5 cm/baffle



THIELE-SMALL PARAMETERS

| parameter                    | conditions/description | typ    |
|------------------------------|------------------------|--------|
| Mechanical Q Factor          | Qms                    | 1.821  |
| Electrical Q Factor          | Qes                    | 1.852  |
| Total Q Factor               | Qts                    | 0.918  |
| Compliance Equivalent Volume | Vas                    | 0.0091 |

Notes: 2. Results represent typical performance in Free Air conditions.

REVISION HISTORY

| rev. | description     | date       |
|------|-----------------|------------|
| 1.0  | initial release | 04/21/2026 |

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



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