

date 06/2010 page 1 of 4

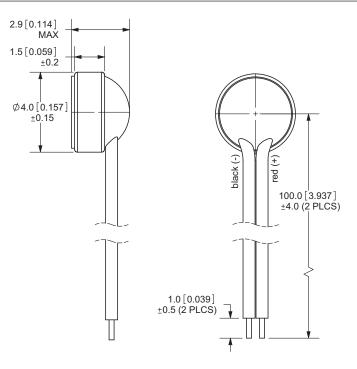
PART NUMBER: CME-1538-100LB

DESCRIPTION: ELECTRET CONDENSER MICROPHONE

SPECIFICATIONS

| parameter | conditions/description | min | nom | max | units |
|----------------------------|---|-----|-----|--------|-------|
| directivity | omnidirectional | | | | |
| sensitivity | f= 1 KHz, 1Pa 0 dB= 1 V/Pa | -41 | -38 | -35 | dB |
| operating voltage | | | 2 | 10 | V dc |
| output impedance | f= 1 KHz, 1Pa | | 2.2 | | KΩ |
| sensitivity reduction | f= 1 KHz, 1Pa Vs=2 V dc to 1.5 V dc | | -3 | | dBA |
| frequency | | 20 | | 20,000 | Hz |
| current consumption | Vs=2 V dc RL=2.2 KΩ | | | 0.5 | mA |
| signal to noise ration | f= 1 KHz, 1 Pa A weighted | | 58 | | dBA |
| operating temperature | | -30 | | 80 | °C |
| storage temperature | | -30 | | 80 | °C |
| dimenstions | ø4 x H1.5 mm | | | | |
| weight | | | | 0.1 | g |
| material | brass (Au plating) | | | | |
| terminal | wire type | | | | |
| RoHS | yes | | | | |
| dustproof/waterproof level | IP67, IEC standard 529 edition 2.0 (1989) | | | | |

APPEARANCE DRAWING



TOLERANCE: ±0.2mm UNLESS OTHERWISE SPECIFIED

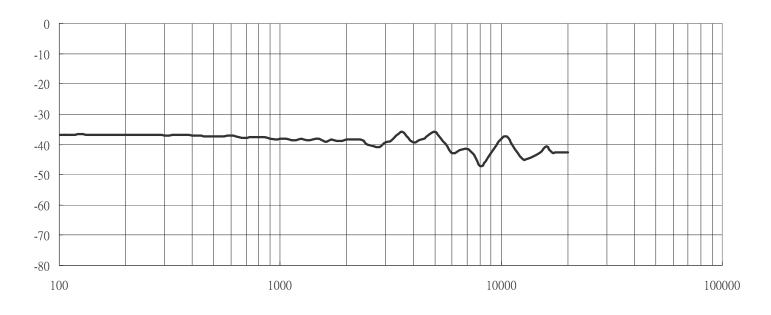


date 06/2010 page 2 of 4

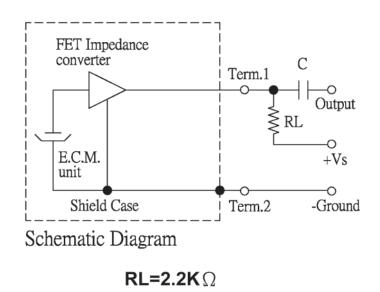
PART NUMBER: CME-1538-100LB

DESCRIPTION: ELECTRET CONDENSER MICROPHONE

FREQUENCY RESPONSE CURVE



MEASUREMENT CIRCUIT





date 06/2010 page 3 of 4

PART NUMBER: CME-1538-100LB

DESCRIPTION: ELECTRET CONDENSER MICROPHONE

MECHANICAL CHARACTERISTICS

| item | test condition | evaluation standard | |
|---------------------------|--|--|--|
| soldering heat resistance | Stripped wires are immersed in rosin for 5 seconds and then im- mersed in solder bath of 270 ±5°C for 3 ±0.5 seconds. | 90% min. stripped wires should be wet with solder (except edge of terminal). | |
| PCB wire pull strength | The force of 4.9 N is applied for 30 sec. to double lead wire. | No damage or cutting off. | |
| vibration test | The microphone should be measured after a vibration amplitude of 1.5 mm with 10 ~ 55 Hz band of vibration frequency to each of the 3 perpendicular directions for 2 hours. | The sensitivity should be within ±3dB compared with the initial measurement. | |
| drop test | The microphone without packaging is subjected to 3 drops on each axis from the height of 100 cm onto a 20 mm thick wooden board. | | |

ENVIRONMENT TEST

| item | test condition | evaluation standard |
|------------------------|--|--|
| high temperature test | After being placed in a chamber at +80°C for 1 hour. | |
| low temperature test | After being placed in a chamber at -30°C for 1 hour. | |
| humidity test | After being placed in a chamber at +40°C and 90 \pm 5% RH for 240 hours. | |
| temperature cycle test | The part will be subjected to 10 cycles. One cycle will consist of: +80°C +25°C +25°C +25°C +25°C | The microphone will be measured after being placed at +25°C for 6 hours. The value of the oscillation frequency should be ±10% compared to the initial measurements. The SPL should be within ±3dB compared to the initial measurements. |

TEST CONDITIONS

| standard test conditions | a) Temperature: +5 ~ +35°C | b) Humidity: 45 ~ 85% | c) Pressure: 860 ~ 1060 mbar |
|---------------------------|----------------------------|-----------------------|------------------------------|
| judgement test conditions | a) Temperature: +25 ±2°C | b) Humidity: 60 ~ 70% | c) Pressure: 860 ~ 1060 mbar |



date 06/2010 page 4 of 4

PART NUMBER: CME-1538-100LB

DESCRIPTION: ELECTRET CONDENSER MICROPHONE

PACKAGING

