

**PART NUMBER: CME-1538-100LB**

**DESCRIPTION: ELECTRET CONDENSER MICROPHONE**

## SPECIFICATIONS

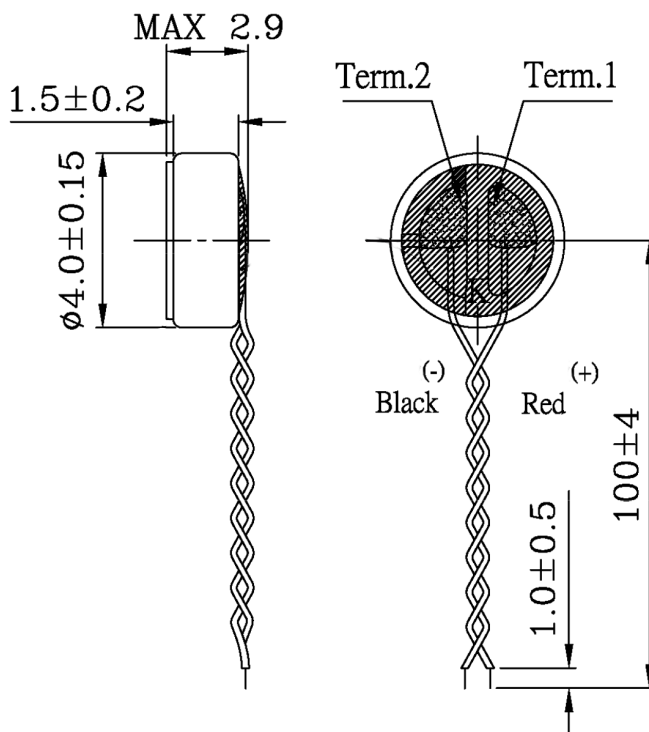
parameter	conditions/description	min	typ	max	units
directivity	omnidirectional				
sensitivity	f= 1 KHz, 1Pa 0 dB= 1 V/Pa	-41	-38	-35	dB
operating voltage			2	10	Vdc
output impedance	f= 1 KHz, 1Pa		2.2		kΩ
sensitivity reduction	f= 1 KHz, 1Pa Vs=2 V dc to 1.5 V dc		-3		dBa
frequency		20		20,000	Hz
current 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
dimensions	ø4 x H1.5 mm				
weight				0.36	g
material	brass (Au plating)				
terminal	wire type				
RoHS	2011/65/EU				
dustproof/waterproof level	IP67, IEC standard 529 edition 2.0 (1989)				

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 20dB compared to the "ubar" indication. Example: -60dB (0dB = 1V/ubar) = -40dB (1V/Pa)  
2. All specifications measured at 5~35°C, humidity at 45~85%, under 86~106kPa pressure, unless otherwise noted.

## APPEARANCE DRAWING

unit: mm  
tolerance: ±0.2

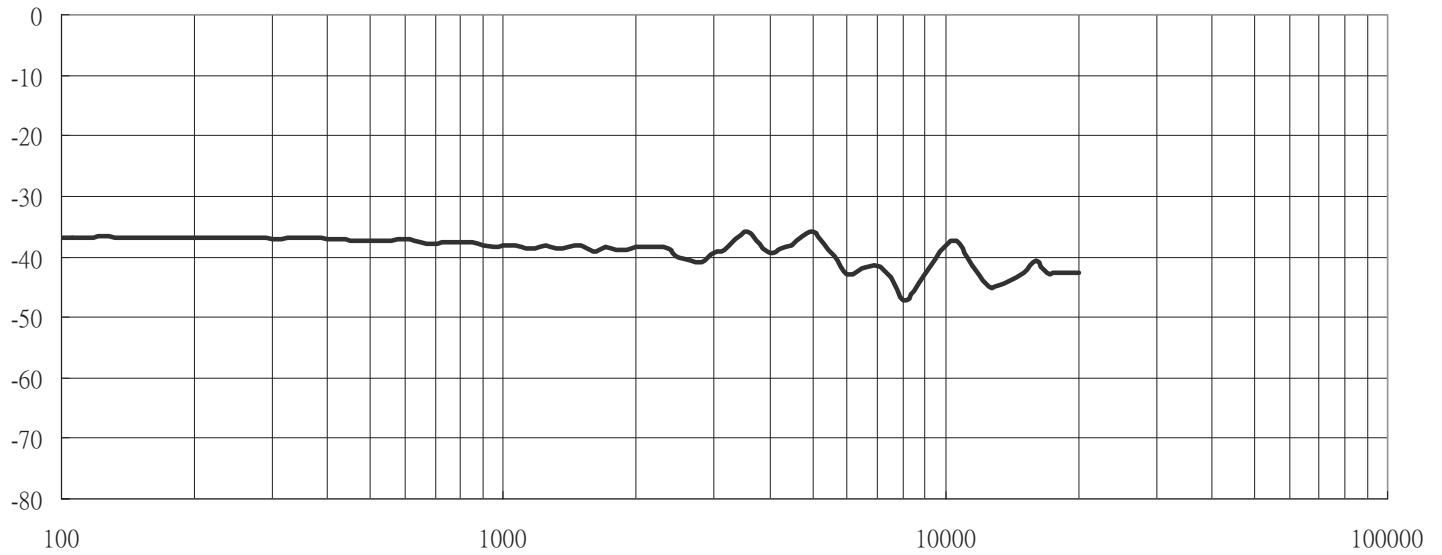
wire: UL1571 32 AWG



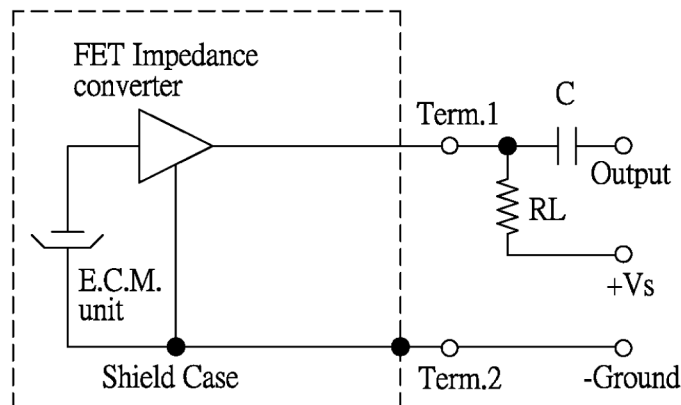
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### FREQUENCY RESPONSE CURVE



### MEASUREMENT CIRCUIT



Schematic Diagram

**RL=2.2K $\Omega$**



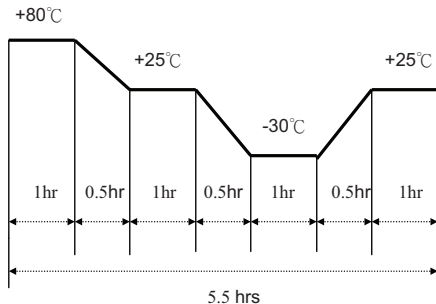
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### MECHANICAL CHARACTERISTICS

item	test condition	evaluation standard
soldering heat resistance	Stripped wires are immersed in rosin for 5 seconds and then immersed 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.	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.
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 ±5% RH for 240 hours.	
temperature cycle test	The part will be subjected to 10 cycles. One cycle will consist of: 	

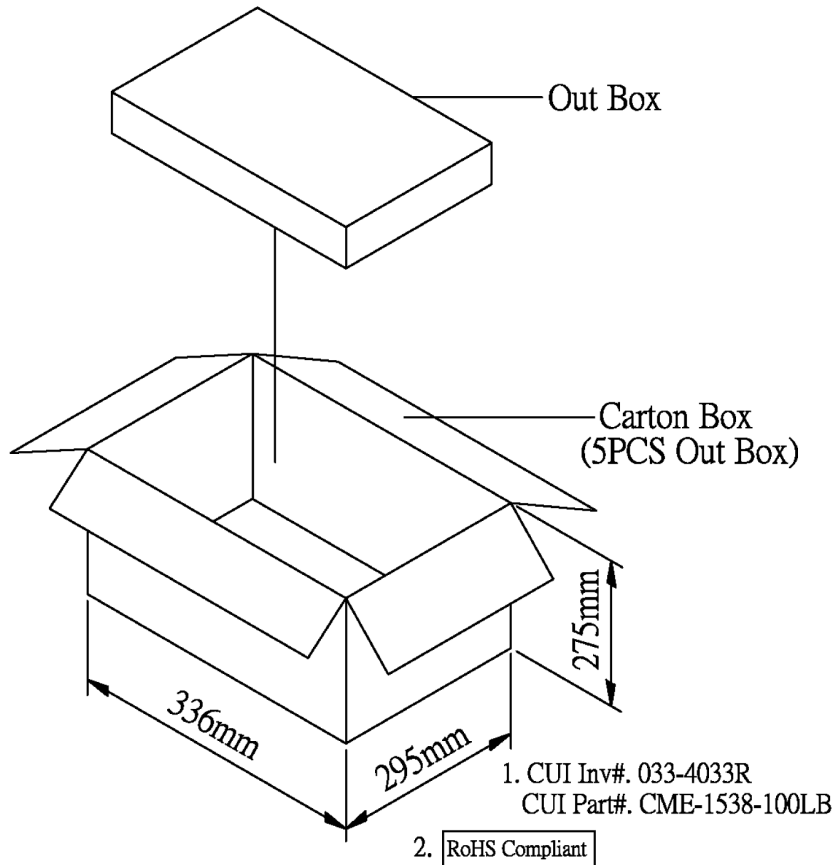
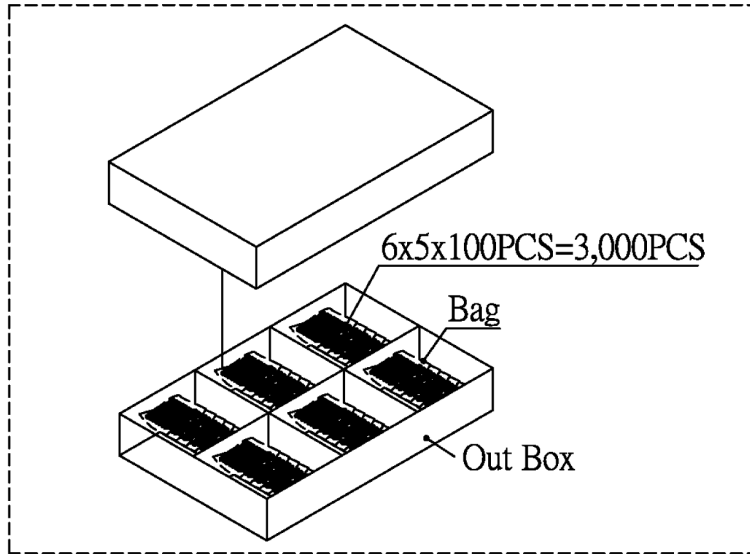
### TEST CONDITIONS

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

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**PACKAGING**



Out Box	310mmx248mmx49mm	1x3,000PCS=3,000PCS
Carton Box	336mmx295mmx275mm	3,000PCSx5=15,000PCS