

date 06/2010 page 1 of 4

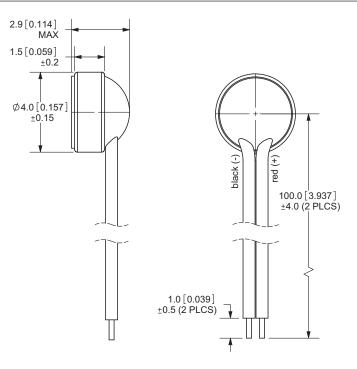
### PART NUMBER: CME-1538-100LB

#### 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

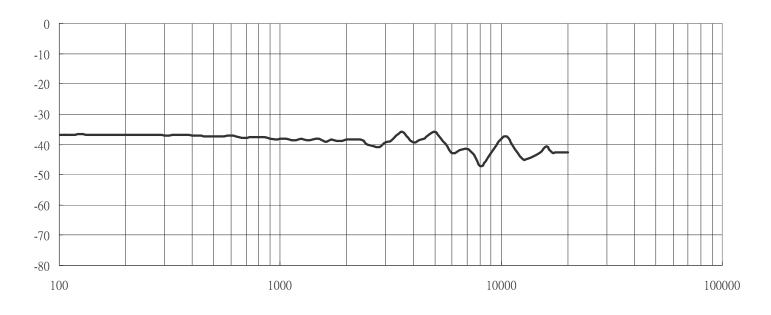


date 06/2010 page 2 of 4

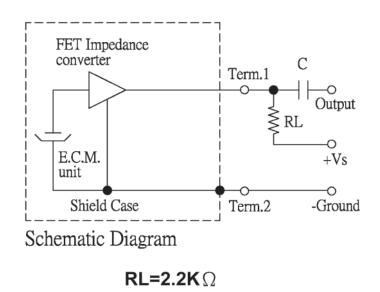
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# FREQUENCY RESPONSE CURVE



# **MEASUREMENT CIRCUIT**





date 06/2010 page 3 of 4

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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 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

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### PACKAGING

