

## MODEL ECM-10P

## OMNI DIRECTIONAL

### 1. SENSITIVITY

( $O_dB=1V/\mu\text{ bar}, 1\text{KHz},$   
 $V_{CC}=4.5V, R_L=1K\Omega$ )

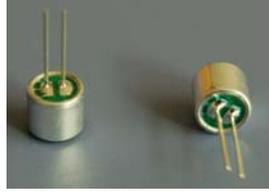
A :  $-56\pm 3\text{dB}$

B :  $-60\pm 3\text{dB}$

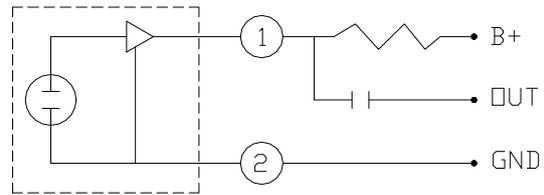
C :  $-64\pm 3\text{dB}$

D :  $-68\pm 3\text{dB}$

E :  $-72\pm 3\text{dB}$



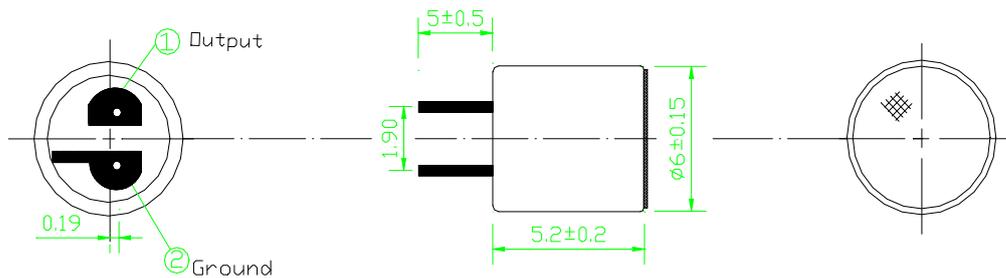
### 2. CIRCUIT DIAGRAM



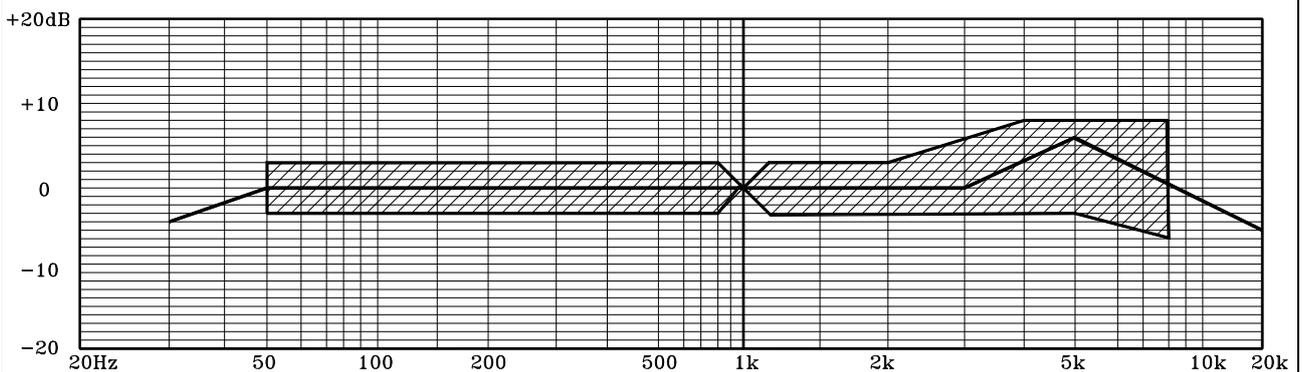
### 3. SPECIFICATIONS

1. IMPEDANCE : LOW
2. STANDARD VOLTAGE : 4.5V
3. RANGE OF OPERATING VOLTAGE : 1.5V TO 10V
4. CURRENT DRAIN : 0.5mA MAX
5. S/N RATIO : 40 dB or more
6. MAXIMUM INPUT SOUND PRESSURE : 120 dB SPL

### 4. DIMENSION



### 5. TYPICAL FREQUENCY RESPONSE CURVE



MAIN USAGE OF ECM UNITS : MICROPHONE ,CASSETTETAPE RECORDER,SONIC CONTROLLED TOY, INTERCOM SYSTEM, SONIC CONTROLLED SWITCH,TELEPHONE SET, DISCO LIGHT & ANSWERING MACHINE,ETC.

## 6. RELIABILITY TEST

<b>VIBRATION TEST</b>	TO BE NO INTERFERENCE IN OPERATION AFTER VIBRATION 12Hz TO 50Hz FOR 1 MINUTE FULL AMPLITUDE, FOR 1.5 HOUR AT 3 AXISES.
<b>DROP TEST</b>	TO BE NO INTERFERENCE IN OPERATION AFTER DROPPED TO CONCERTET FLOOR EACH ONE TIME FROM 1 METER HEIGHT AT 3 DIRECTONS IN STATE OF PACKING.
<b>TEMPERATURE TEST</b>	a) AFTER EXPOSURE AT 55° FOR 1 HOUR, SENSITIVITY TO BE WITHIN +/-3dB FROM INITIAL. b) AFTER EXPOSURE AT -10° FOR 1 HOUR, SENSITIVITY TO BE WITHIN +/-3dB FROM INITIAL. (THE MEASUREMENT TO BE DONE AFTER 2 HOURS OF CONDITIONING AT 25°C.)
<b>HUMIDITY TEST</b>	AFTER EXPOSURE AT 40°C AND 95% RH FOR 48 HOURS, SENSITIVITY TO BE WITHIN +/-3dB FROM INITIAL. (AFTER 1 HOUR OF CONDITIONING AT 25°C.)
<b>TEMPERATURE CYCLE TEST</b>	AFTER EXPOSURE AT -10°C FOR 1HOUR, AT 25°C FOR 1 HOUR, AT 50°C FOR 1 HOUR, ATO 25°C FOR 2 HOURS, 4 CYCLES ,SENSITIVITY TO BE WITHIN +/-3dB. (AFTER 2 HOURS OF CONDITIONING AT 25°C)

### **\*REGARDING THE SOLDERING OPERATION :**

EACH CONDENSER MICROPHONE CONTAINS A FET WITHIN ITS CASE.

GENERALLY, OVER-HEATING, OVER-CHARGE OF VOLTAGE IS EASY TO DESTROY SEMICONDUCTORS.

1. USE 30W (OR UNDER) SOLDERING IRON AND MAINTAIN 230°~260°C IN OPERATION.
2. SOLDERING SHOULD BE ACCOMPLISHED WITHIN TWO SECONDS AT EACH TERMINAL SO AS NOT TO BE OVERHEATED.
3. DO NOT MAKE A CAVITY AT THE SERFACE OF LEAD ON THE PATTERN PLATE. (A CAVITY MAY CHANGE THE CHARACTERISTICE OF CONDENSER MICROPHONE.)