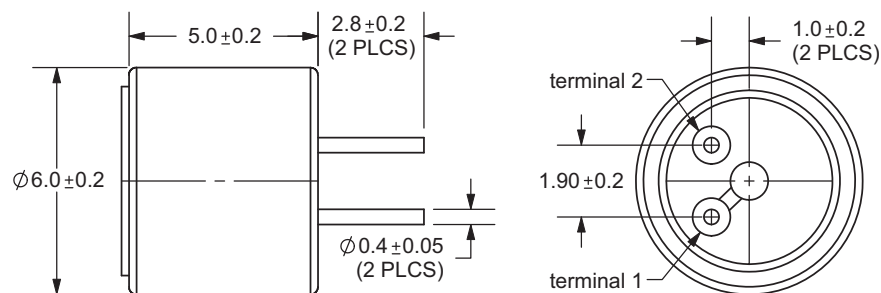


**PART NUMBER:** CMC-5042PF-AC**DESCRIPTION:** electret condenser microphone**SPECIFICATIONS**

| | | |
|--|--|-----------------------------------|
| directivity | omnidirectional | |
| sensitivity (S) | -42 \pm 3 dB | f = 1KHz, 1Pa 0dB = 1V/Pa |
| sensitivity reduction (Δ S-Vs) | -3 dB | f = 1KHz, 1Pa Vs = 2.0 ~ 1.5 V dc |
| operating voltage | 2 V dc (standard), 10 V dc (max.) | |
| output impedance (Zout) | 2.2 K Ω | f = 1KHz, 1Pa |
| operating frequency (f) | 100 ~ 20,000 Hz | |
| current consumption (IDSS) | 0.5 mA max. | Vs = 2.0 V dc RL = 2.2K Ω |
| signal to noise ratio (S/N) | 56 dBA | f = 1KHz, 1Pa A-weighted |
| operating temperature | -20 ~ +70° C | |
| storage temperature | -20 ~ +70° C | |
| dimensions | ϕ 6.0 x 5.0 mm | |
| weight | 0.30 g max. | |
| material | Al | |
| terminal | pin type (Au plating, hand soldering only) | |
| RoHS | yes | |

note:

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)

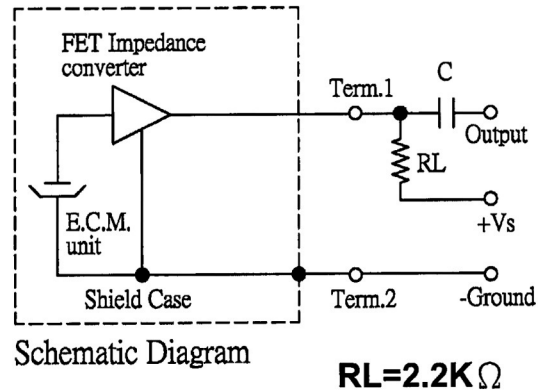
APPEARANCE DRAWINGtolerances not shown: \pm 0.3mm



PART NUMBER: CMC-5042PF-AC

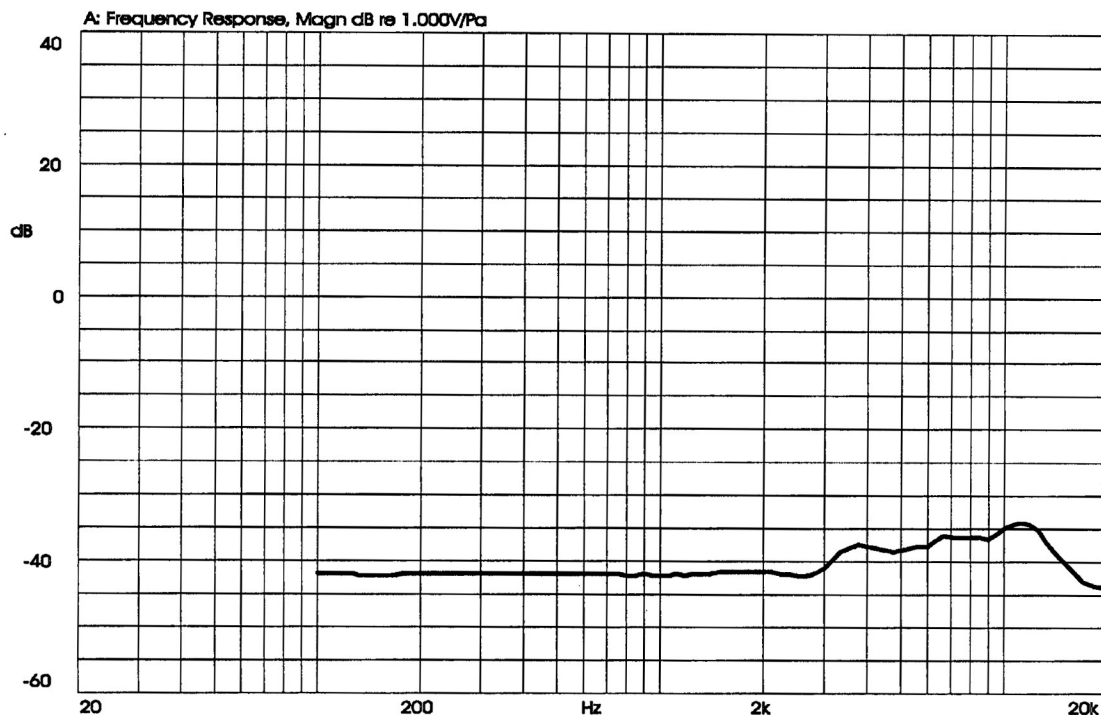
DESCRIPTION: electret condenser microphone

MEASUREMENT CIRCUIT



FREQUENCY RESPONSE CURVE

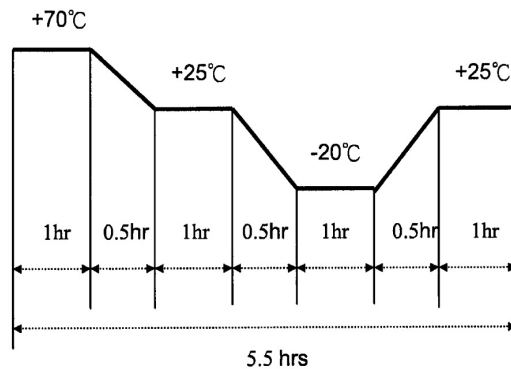
X:1.0000kHz *Y:-42.00dB ZA:Live Curve SSR Fund.



**PART NUMBER:** CMC-5042PF-AC**DESCRIPTION:** electret condenser microphone**MECHANICAL CHARACTERISTICS**

| item | test condition | evaluation standard |
|---------------------------|--|---|
| soldering heat resistance | Soldering iron of $270 \pm 5^{\circ}\text{C}$ should be placed on the terminal for 2 ± 0.5 seconds. | No interference in operation. |
| PCB wire pull strength | The pull force will be applied to double lead wire: Horizontal 4.9N (0.5kg) for 30 seconds | No damage or cutting off. |
| vibration | The part will be measured after applying a vibration amplitude of 1.5 mm with 10 to 55 Hz band of vibration frequency to each of the 3 perpendicular directions for 2 hours. | After any tests, the sensitivity should be within $\pm 3\text{dB}$ compared to the initial measurement. |
| drop test | The part will be dropped from a height of 1 m onto a 20 mm thick wooden board 3 times in 3 axes (X, Y, Z) for a total of 9 drops. | |

ENVIRONMENT TEST

| item | test condition | evaluation standard |
|------------------|--|--|
| high temp. test | After being placed in a chamber at $+70^{\circ}\text{C}$ for 72 hours. | The part will be measured after being placed at $+25^{\circ}\text{C}$ for 6 hours. After any tests, the sensitivity should be within $\pm 3\text{dB}$ compared to the initial measurement. |
| low temp. test | After being placed in a chamber at -20°C for 72 hours. | |
| humidity test | After being placed in a chamber at $+40^{\circ}\text{C}$ and $90 \pm 5\%$ relative humidity for 240 hours. | |
| temp. cycle test | The part shall be subjected to 10 cycles. One cycle will consist of:  | |

TEST CONDITIONS

| | | | |
|--------------------------|---|-----------------------|----------------------------|
| standard test condition | a) temperature: $+5 \sim +35^{\circ}\text{C}$ | b) humidity: 45 - 85% | c) pressure: 860-1060 mbar |
| judgement test condition | a) temperature: $+25 \pm 2^{\circ}\text{C}$ | b) humidity: 60 - 70% | c) pressure: 860-1060 mbar |

PART NUMBER: CMC-5042PF-AC

DESCRIPTION: electret condenser microphone

PACKAGING

