

# HORN 深圳市豪恩实业有限公司

SHENZHEN HORN INDUSTRIAL CO., LTD.

SPEC. SHEET NO: 00011234

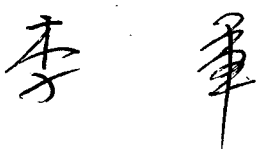
Address:  
 BLOCK 1, DEHUINA INDUSTRIAL DISTRICT,  
 MINGZHI RD LONGHUA, SHENZHEN,  
 GUANGDONG, CHINA 518131

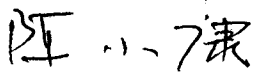
TEL: (86) 755-8192552 8190943  
 FAX: (86) 755-8192557  
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 HOME PAGE: www.globalsources.com/hormmic.co


**CUSTOMER: Digi-Key Corporation**

## APPROVE SHEET

| PRODUCT NAME                        | TYPE      | DIMENSION    |  |
|-------------------------------------|-----------|--------------|--|
| Electret<br>Condenser<br>Microphone | EM6035-38 | Ø6.0x3.5(mm) |  |

APPROVED :  DATE: 2000.11.25

CHECKED BY:  DATE: 2000.11.25

ISSUED BY: 陳為波 DATE: 

APPROVED BY:

DATE

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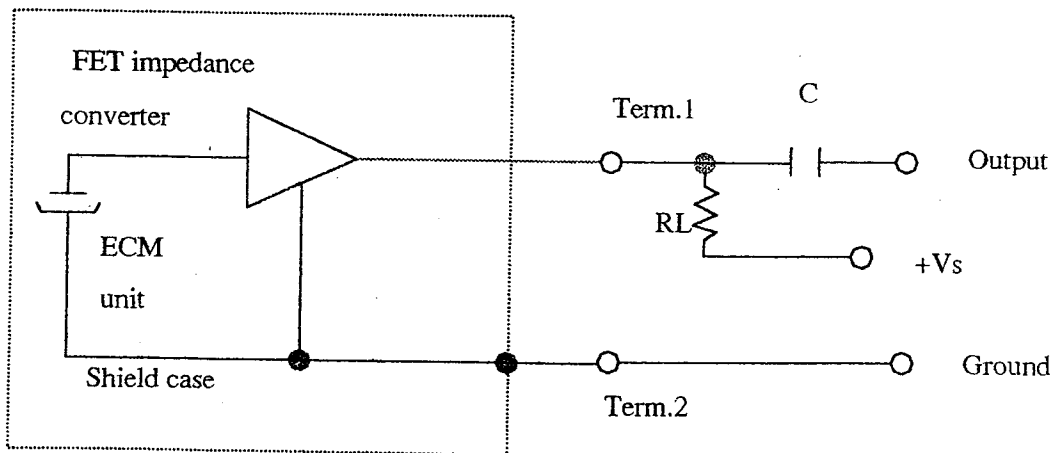
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## SPECIFICATION

| Item                  | Symbol          | Test conditions                 | Min | Standard | Max | Unit            |
|-----------------------|-----------------|---------------------------------|-----|----------|-----|-----------------|
| Sensitivity           | S               | f=1KHz. Pin=1ubar               | -41 | -38      | -35 | dB<br>0dB=1V/Pa |
| Directivity           | Omnidirectional |                                 |     |          |     |                 |
| Impedance             | Zout            |                                 |     |          | 2.2 | K Ω             |
| Current consumption   | I               | f=1KHz. Pin=1ubar               |     |          | 500 | uA              |
| Sensitivity reduction | ΔS              | f=1KHz. Pin=1ubar.<br>Vs=1.5→1V |     |          | -3  | dB              |
| S/N ratio             | S/N(A)          | f=1KHz. Pin=1ubar.<br>A=curve   | 40  |          |     | dB              |

### Measurement Circuit (Test Condition Vs=4.5V RL=2.2KΩ

Ta=20°C R.H=65%)



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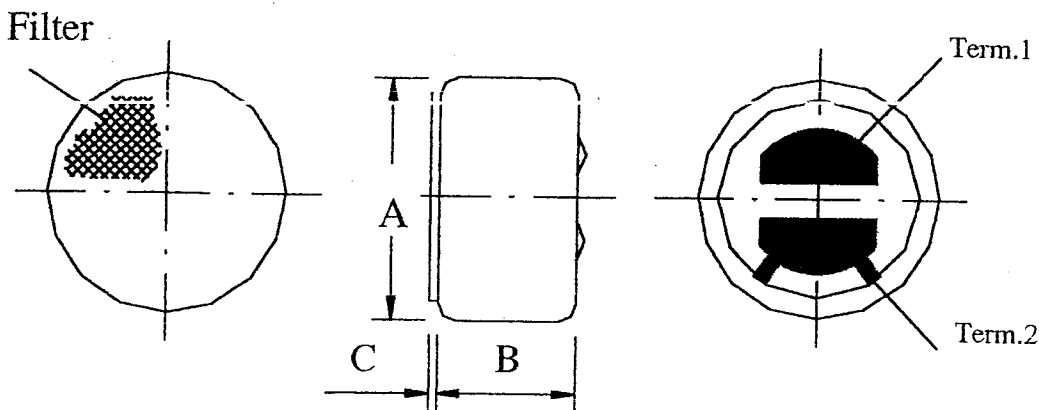
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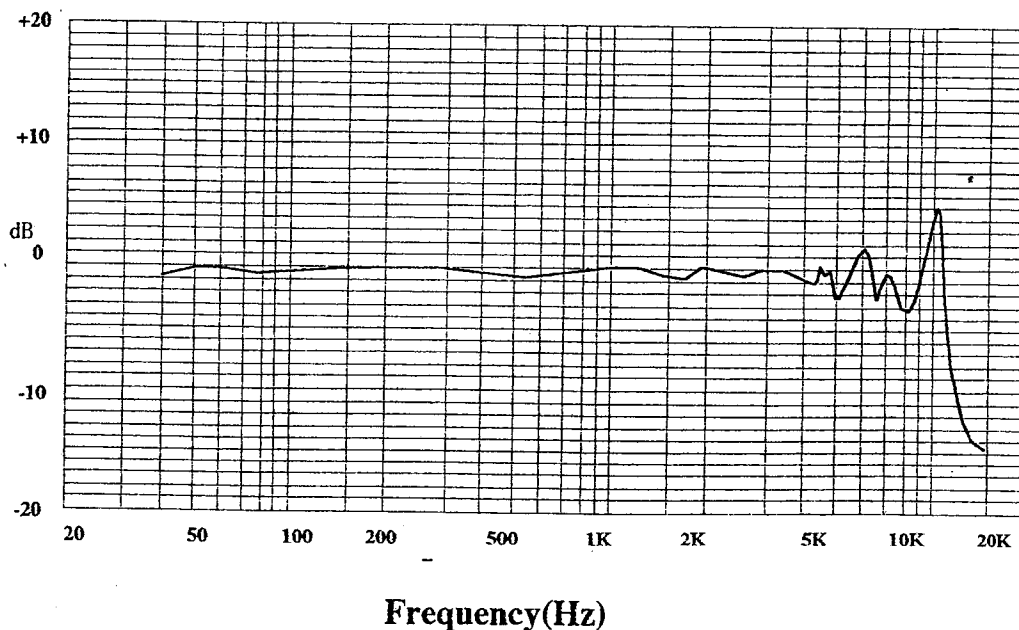
## Dimensional Drawing

unit: mm



| PART | MIN  | TYPE | MAX  | REMARK |
|------|------|------|------|--------|
| A    | Ø5.8 | Ø6.0 | Ø6.2 |        |
| B    | 3.7  | 3.5  | 3.3  |        |
| C    | -    | -    | 0.2  |        |

## Typical Frequency Response Curve



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## Ambient condition

### (1) Operating condition

Ambient temperature:  $-10^{\circ}\text{C} \sim +45^{\circ}\text{C}$

Relative humidity:  $\leq 85\%$

### (2) Storage condition

Ambient temperature:  $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$

Relative humidity: 45%

## Reliability Test

### 1) Vibration Test

To be no interference in operation after vibration of full amplitude 2mm for 30 minutes at three axis, the sensitivity to be within  $\pm 3\text{dB}$  from initial sensitivity.

### 2) Drop test

To be no interference in operation after dropped to concrete floor each time from 1 meter height of three directions in state of packing, the sensitivity to be within  $\pm 3\text{dB}$  from initial sensitivity.

### 3) High Temperature Storage:

To be no interference in operation after high temperature test  $70^{\circ}\text{C} \pm 3^{\circ}\text{C}$  for 48 hours. The sensitivity to be within  $\pm 3\text{dB}$  from initial sensitivity.

### 4) Isotherm & Iso-humidity Storage

To be no interference in operation after storage test at temperature  $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$  and relative humidity ( $93\% \pm 2\sim 3\%$ ) for 48 hours, the sensitivity to be within  $\pm 3\text{dB}$  from initial sensitivity, the test is performed at temperature  $20^{\circ}\text{C}$  after operation for 2 hours.

### 5) Low Temperature Storage

To be no interference in operation after test at temperature  $-20^{\circ}\text{C} \pm 3^{\circ}\text{C}$  for 48 hours, the sensitivity to be within  $\pm 3\text{dB}$  from initial sensitivity

### 6) Temperature Cycle Test

After exposure at  $-55 \pm 2^{\circ}\text{C}$  for 1 hour, at  $20 \pm 2^{\circ}\text{C}$  for 1 hour. at  $-10 \pm 2^{\circ}\text{C}$  for 1 hour, at  $20 \pm 2^{\circ}\text{C}$  for 1 hour, with 5 cycles. Change of sensitivity within  $\pm 3\text{dB}$  from initial measuring should be done after 2 hours exposed to  $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$ .

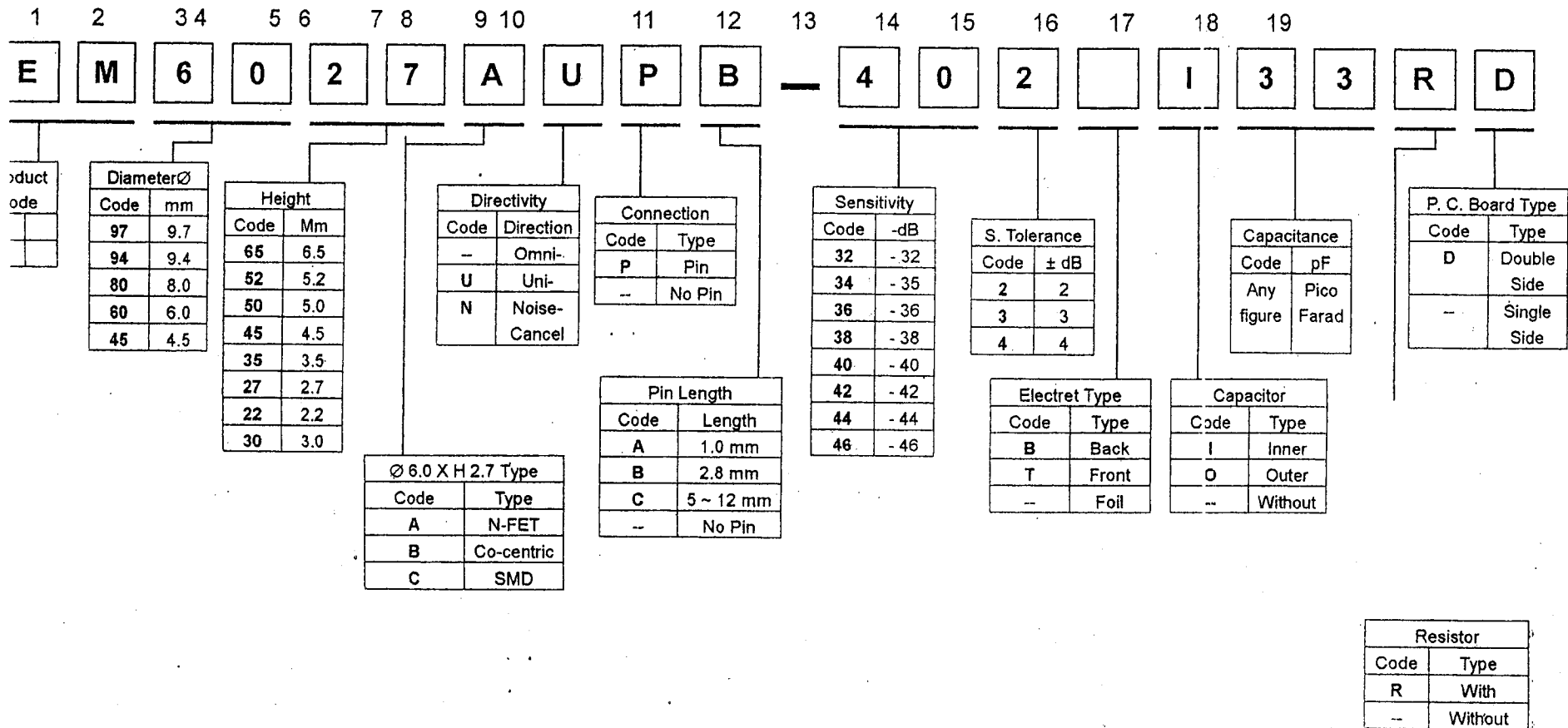
### 7) Collision Test

After collided with the acceleration  $100 \pm 10\text{m/s}$ , at the vertical & horizontal directions for  $1000 \pm 10$  times. at the state of packing. Change of sensitivity within  $\pm 3\text{dB}$  from initial.

# HORN Shenzhen Horn Industrial Co., Ltd.

## Explanation of Part Number

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# SHENZHEN HORN INDUSTRIAL CO.,LTD.

## PACKING LIST OF CONDENSER MICROPHONES

| DEL NO  | DIMENSION<br>(mm) | DIRECTIVITY      | INNER PACKING<br>(PCS) | MIDDLE PACKING<br>(PCS) | CARTOON<br>(PCS) | GROSS WEIGHT<br>(Kg) | NET WEIGHT<br>(Kg) |
|---------|-------------------|------------------|------------------------|-------------------------|------------------|----------------------|--------------------|
| 19765   | 9.7*6.5           | Omni directional | 100                    | 1,000                   | 10,000           | 10                   | 9.5                |
| 19765P  | 9.7*6.5           | Omni directional | N/G                    | 400                     | 4,000            | 5                    | 4.5                |
| 19752U  | 9.7*5.2           | Unidirectional   | 100                    | 1,000                   | 10,000           | 9.5                  | 9                  |
| 19752N  | 9.7*5.2           | Noise Cancelling | 100                    | 1,000                   | 10,000           | 9.5                  | 9                  |
| 19745   | 9.7*4.5           | Omni directional | 100                    | 1,000                   | 10,000           | 9                    | 8.5                |
| 19745P  | 9.7*4.5           | Omni directional | N/G                    | 400                     | 4,000            | 3.5                  | 3                  |
| 19465   | 9.4*6.5           | Omni directional | 100                    | 1,000                   | 10,000           | 9.5                  | 9                  |
| 19465P  | 9.4*6.5           | Omni directional | N/G                    | 400                     | 4,000            | 4.5                  | 4                  |
| 18050U  | 8.0*5.0           | Unidirectional   | 50                     | 1,000                   | 15,000           | 10                   | 9.5                |
| 16050   | 6.0*5.0           | Omni directional | 100                    | 2,000                   | 30,000           | 10.5                 | 10                 |
| 16050P  | 6.0*5.0           | Omni directional | 100                    | 1,000                   | 10,000           | 3.5                  | 3                  |
| 16050U  | 6.0*5.0           | Unidirectional   | 100                    | 2,000                   | 30,000           | 10.5                 | 10                 |
| 16050N  | 6.0*5.0           | Noise Cancelling | 100                    | 2,000                   | 30,000           | 10.5                 | 10                 |
| 16035   | 6.0*3.5           | Omni directional | 100                    | 2,000                   | 30,000           | 9.5                  | 9                  |
| 16027   | 6.0*2.7           | Omni directional | 100                    | 2,000                   | 30,000           | 7.5                  | 7                  |
| 16027PA | 6.0*2.7           | Omni directional | 100                    | 2,000                   | 30,000           | 7.5                  | 7                  |
| 14530   | 4.5*3.0           | Omni directional | 100                    | 2,000                   | 30,000           | 6.5                  | 6                  |