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HOME PAGE: www.globalsources.com/hornmic.co

**CUSTOMER: Digi-Key Corporation**

## APPROVE SHEET

| PRODUCT NAME                        | TYPE       | DIMENSION    |  |
|-------------------------------------|------------|--------------|--|
| Electret<br>Condenser<br>Microphone | EM9752N-51 | Ø9.7×5.2(mm) |  |

APPROVED :

李 军

DATE: 2000.11.25.

CHECKED BY:

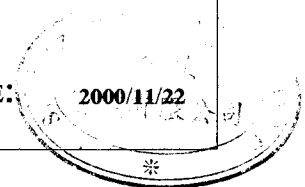
陈 为 波

DATE: 2000.11.25

ISSUED BY:

陳為波

DATE: 2000/11/22



APPROVED BY

DATE:

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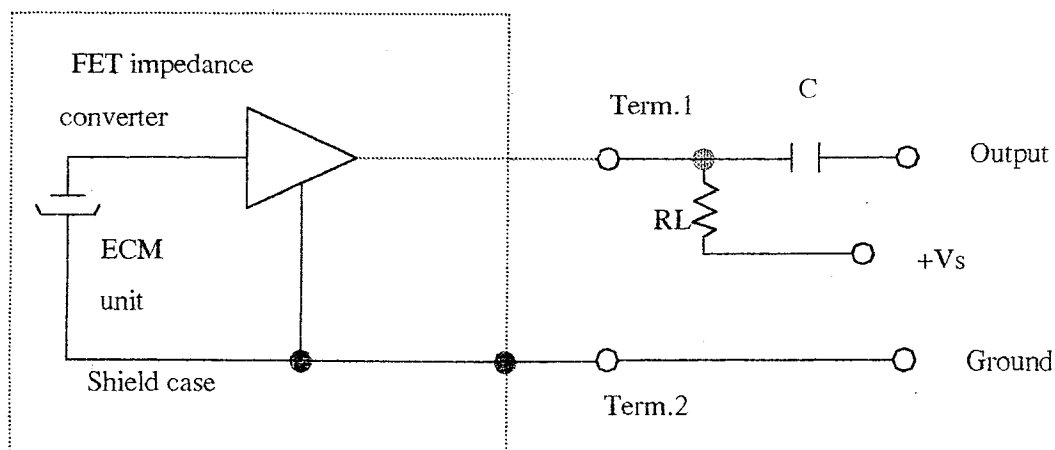
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## SPECIFICATION

| Item                  | Symbol     | Test conditions                              | Min | Standard | Max | Unit                           |
|-----------------------|------------|----------------------------------------------|-----|----------|-----|--------------------------------|
| Sensitivity           | S          | f=1KHz. Pin=1pa                              | -55 | -51      | -47 | dB<br><small>0dB=1V/pa</small> |
| Directivity           |            | Noise canceling                              |     |          |     |                                |
| Impedance             | Zout       |                                              |     |          | 680 | $\Omega$                       |
| Current consumption   | I          | f=1KHz. Pin=1pa                              |     |          | 500 | $\mu A$                        |
| Sensitivity reduction | $\Delta S$ | f=1KHz. Pin=1pa.<br>$V_s=1.5 \rightarrow 1V$ |     |          | -3  | dB                             |
| S/N ratio             | S/N(A)     | f=1KHz. Pin=1pa.<br>A=curve                  | 58  |          |     | dB                             |

### Measurement Circuit (Test Condition $V_s=1.5V$ $R_L=680\Omega$ )

$T_a=20^\circ C$  R.H=65%)

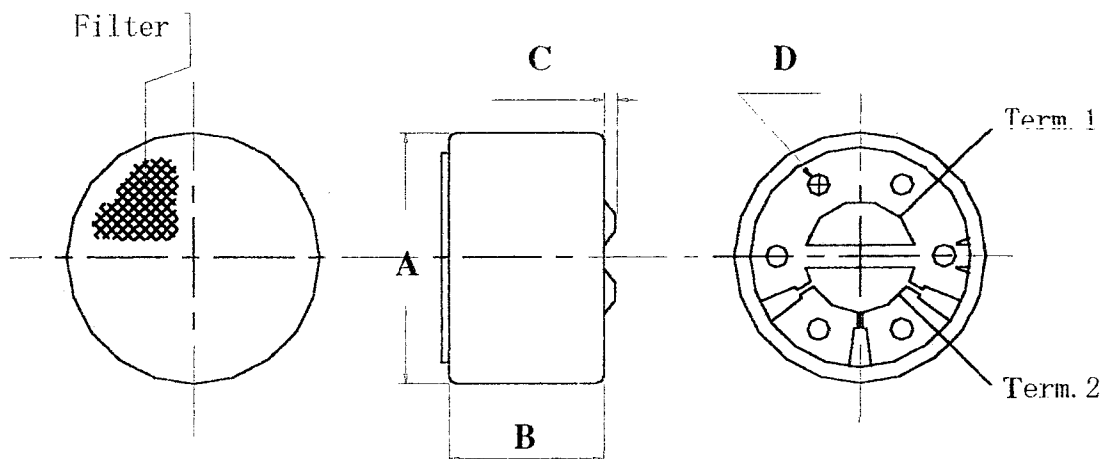


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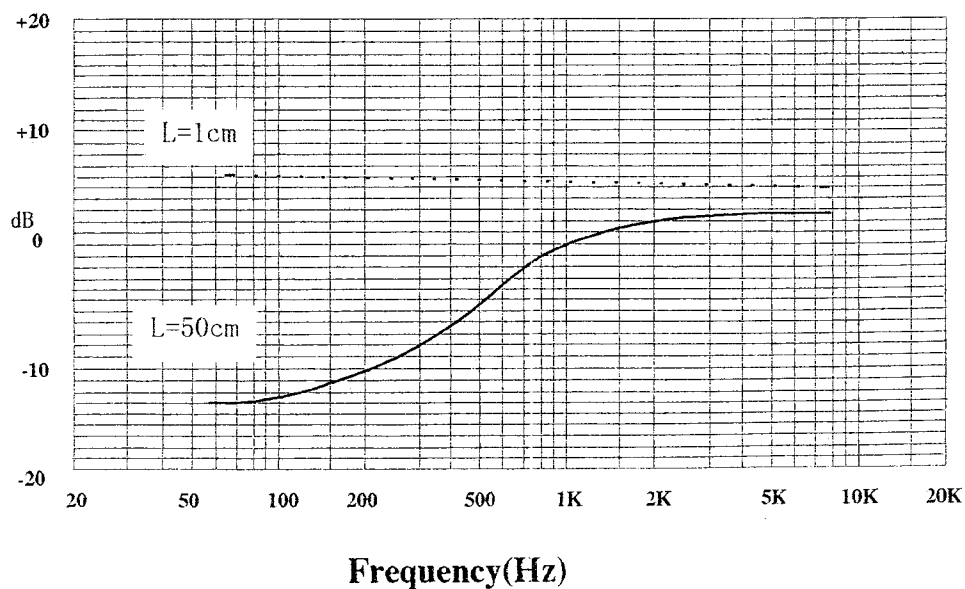
## Dimensional Drawing

unit: mm



| PART | MIN  | TYPE | MAX  | REMARK |
|------|------|------|------|--------|
| A    | Ø9.6 | Ø9.7 | Ø9.8 |        |
| B    | 5.0  | 5.2  | 5.4  |        |
| C    | -    | -    | 0.7  |        |
| D    | Ø0.8 | -    | Ø1.2 |        |

## 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 4 hours, the sensitivity to be within  $\pm 3\text{dB}$  from initial sensitivity

### 6) Temperature Cycle Test

After exposure at  $55^{\circ}\text{C} \pm 2^{\circ}\text{C}$  for 1 hour, at  $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$  for 1 hour, at  $-10^{\circ}\text{C} \pm 2^{\circ}\text{C}$  for 1 hour, at  $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$  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  $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$ .

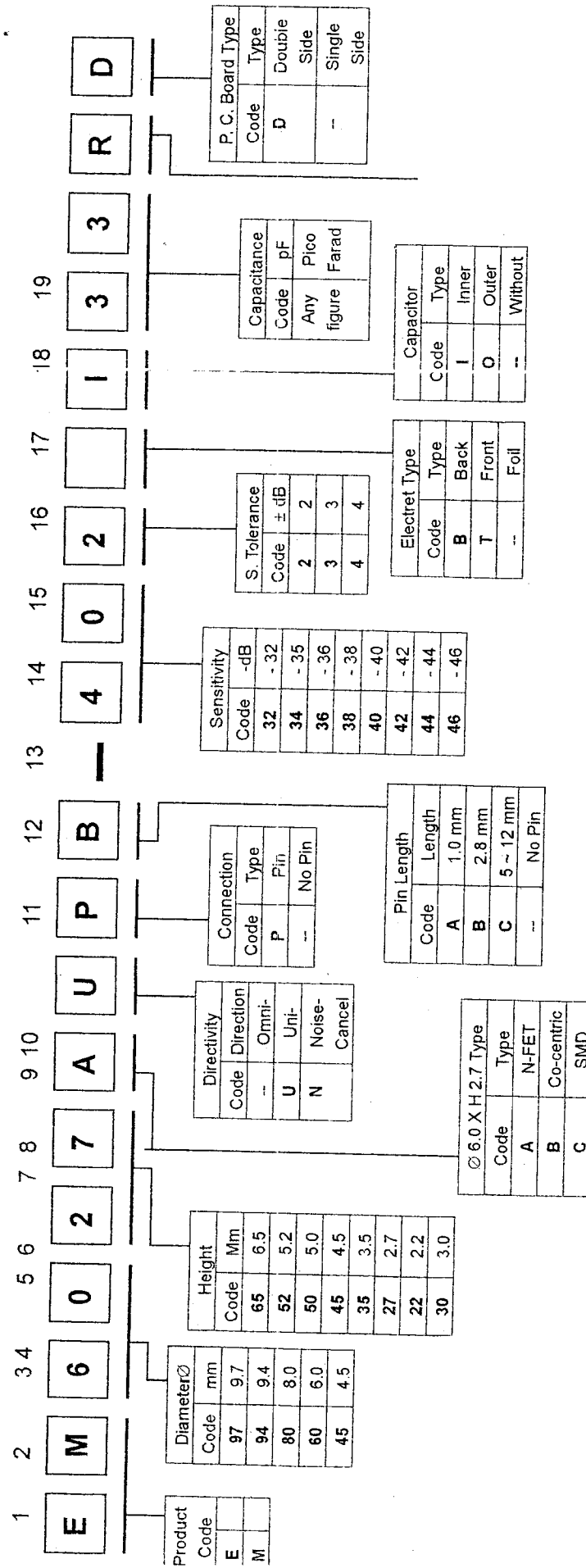
### 7) Collision Test

After collided with the acceleration  $100 \pm 10\text{m/s}^2$ , 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

| MODEL NO | DIMENSION (mm) | DIRECTIVITY      | INNER PACKING (PCS) | MIDDLE PACKING (PCS) | CARTOON (PCS) | GROSS WEIGHT (Kg) | NET WEIGHT (Kg) |
|----------|----------------|------------------|---------------------|----------------------|---------------|-------------------|-----------------|
| EM9765   | 9.7*6.5        | Omni directional | 100                 | 1,000                | 10,000        | 10                | 9.5             |
| M9765P   | 9.7*6.5        | Omni directional | N/G                 | 400                  | 4,000         | 5                 | 4.5             |
| M9752U   | 9.7*5.2        | Unidirectional   | 100                 | 1,000                | 10,000        | 9.5               | 9               |
| N9752N   | 9.7*5.2        | Noise Cancelling | 100                 | 1,000                | 10,000        | 9.5               | 9               |
| 3M9745   | 9.7*4.5        | Omni directional | 100                 | 1,000                | 10,000        | 9                 | 8.5             |
| M9745P   | 9.7*4.5        | Omni directional | N/G                 | 400                  | 4,000         | 3.5               | 3               |
| 3M9465   | 9.4*6.5        | Omni directional | 100                 | 1,000                | 10,000        | 9.5               | 9               |
| M9465P   | 9.4*6.5        | Omni directional | N/G                 | 400                  | 4,000         | 4.5               | 4               |
| M8050U   | 8.0*5.0        | Unidirectional   | 50                  | 1,000                | 15,000        | 10                | 9.5             |
| 3M6050   | 6.0*5.0        | Omni directional | 100                 | 2,000                | 30,000        | 10.5              | 10              |
| M6050P   | 6.0*5.0        | Omni directional | 100                 | 1,000                | 10,000        | 3.5               | 3               |
| M6050U   | 6.0*5.0        | Unidirectional   | 100                 | 2,000                | 30,000        | 10.5              | 10              |
| M6050N   | 6.0*5.0        | Noise Cancelling | 100                 | 2,000                | 30,000        | 10.5              | 10              |
| M6035    | 6.0*3.5        | Omni directional | 100                 | 2,000                | 30,000        | 9.5               | 9               |
| M6027    | 6.0*2.7        | Omni directional | 100                 | 2,000                | 30,000        | 7.5               | 7               |
| I6027PA  | 6.0*2.7        | Omni directional | 100                 | 2,000                | 30,000        | 7.5               | 7               |
| M4530    | 4.5*3.0        | Omni directional | 100                 | 2,000                | 30,000        | 6.5               | 6               |