

Address:
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MINGZHI RD LONGHUA, SHENZHEN,
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HOME PAGE: www.globalsources.com/hornmic.co

CUSTOMER: Digi-Key Corporation

APPROVE SHEET

PRODUCT NAME	TYPE	DIMENSION	
Electret Condenser Microphone	EM6050U-51	Ø6.0×5.0(mm)	

APPROVED :

李 華

DATE: 2000.11.15

CHECKED BY:

陳 小 波

DATE: 2000.11.25

ISSUED BY:

陳 為 波

DATE: 2000/11/23



APPROVED BY:

DATE:

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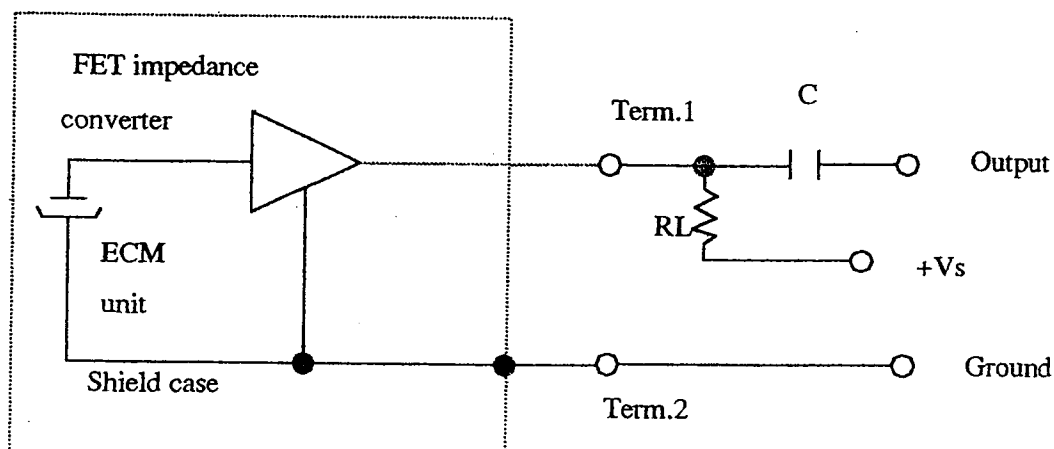
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SPECIFICATION

Item	Symbol	Test conditions	Min	Standard	Max	Unit
Sensitivity	S	f=1KHz. Pin=1pa	-55	-51	-47	$\frac{\text{dB}}{\text{0dB}=1\text{V/}\mu\text{e}}$
Directivity	Unidirectional					
Impedance	Zout				2.2	Ω
Current consumption	I	f=1KHz. Pin=1pa			500	μA
Sensitivity reduction	ΔS	f=1KHz. Pin=1pa. $V_s=2 \rightarrow 1\text{V}$			-3	dB
S/N ratio	S/N(A)	f=1KHz. Pin=1pa. A=curve	58			dB

Measurement Circuit (Test Condition $V_s=2\text{V}$ $R_L=2.2\text{K}\Omega$)

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



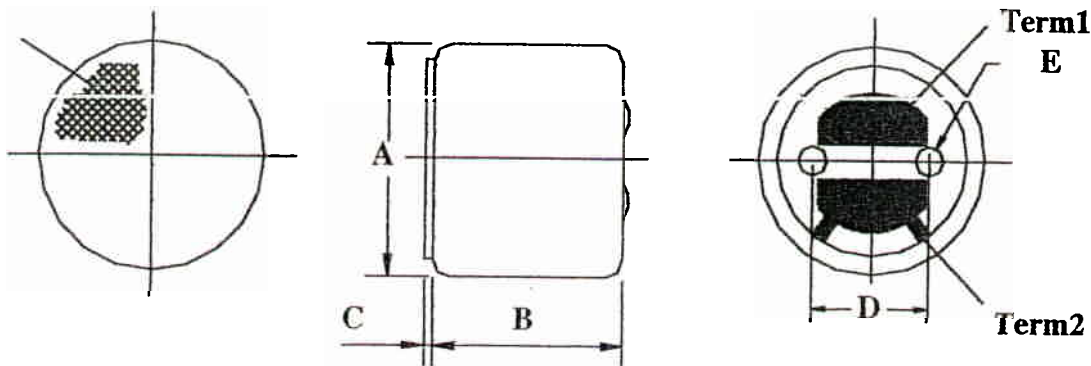
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Dimensional Drawing

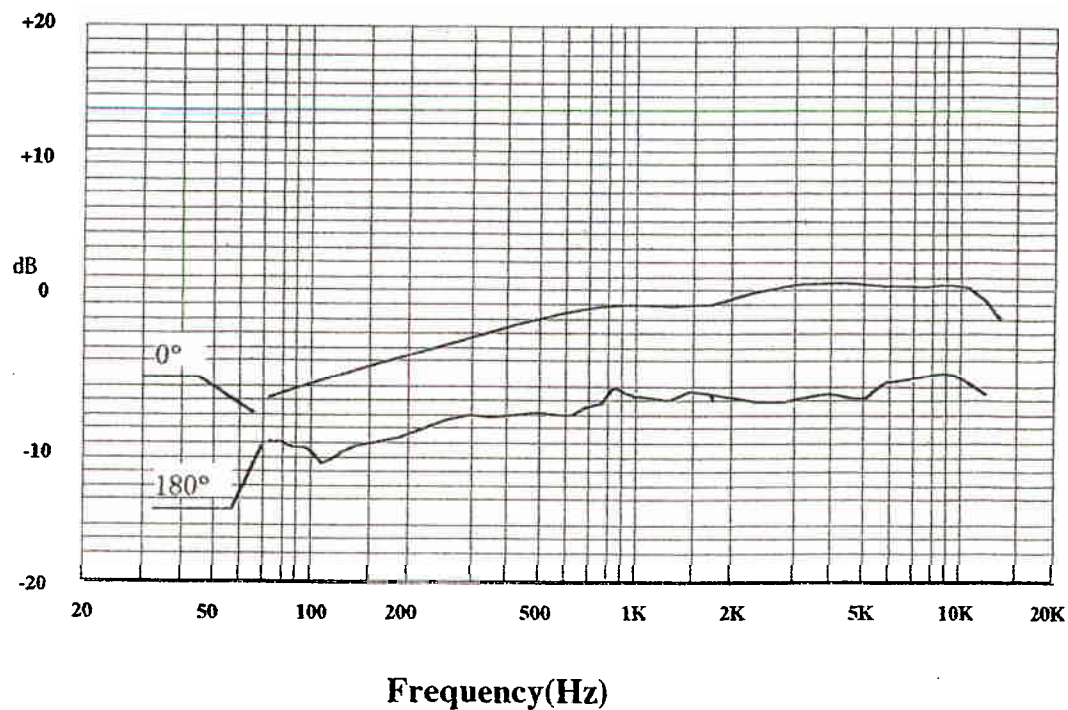
unit: mm

Filter



PART	MIN	TYPE	MAX	REMARK
A	Ø5.8	Ø6.0	Ø6.2	
B	4.8	5.0	5.2	
C	-	-	0.2	
D	2.8	3	3.2	
E	0.6	0.7	0.8	

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°C after operation for 2 hours.

5) Low Temperature Storage

To be no interference in operation after test at temperature $-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ 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 30 minutes, at $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 10 minutes. at $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 30 minutes, at $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 10 minutes, with 5 cycles. Change of sensitivity within $\pm 3\text{dB}$ from initial measuring should be done after 2 hours exposed to $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$.

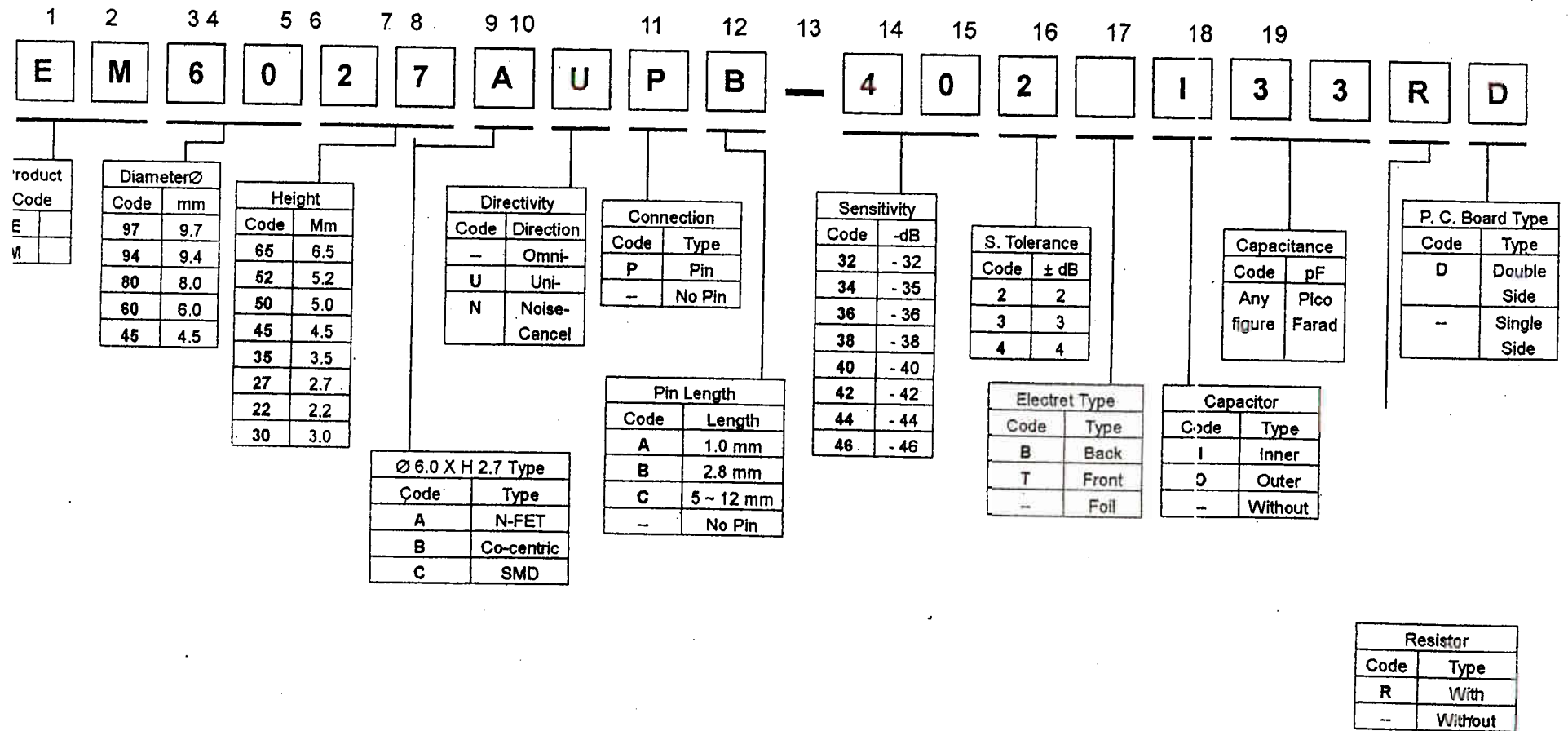
7) Collision Test

After collided with the acceleration $100 \pm 10\text{m/s}$, at the vertical & horizontal directions for 1000 ± 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
EM9745	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
EM9465	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
M6050	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
M6027PA	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