

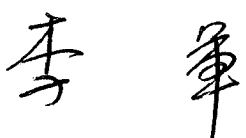
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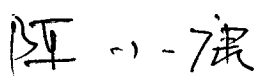
TEL: (86) 755-8192552 8190943
 FAX: (86) 755-8192557
 E-mail: szwwiner @ public.szptt.net.cn
 HOME PAGE: www.globalsources.com/hornmic.co


CUSTOMER: Digi-Key Corporation

APPROVE SHEET

PRODUCT NAME	TYPE	DIMENSION	
Electret Condenser Microphone	EM9745P-44	Ø9.7×4.5(mm)	PIN TYPE

APPROVED :  DATE: 2000.11.25

CHECKED BY:  DATE: 2000.11.25

ISSUED BY: 陳為波 DATE: 

APPROVED BY

DATE:

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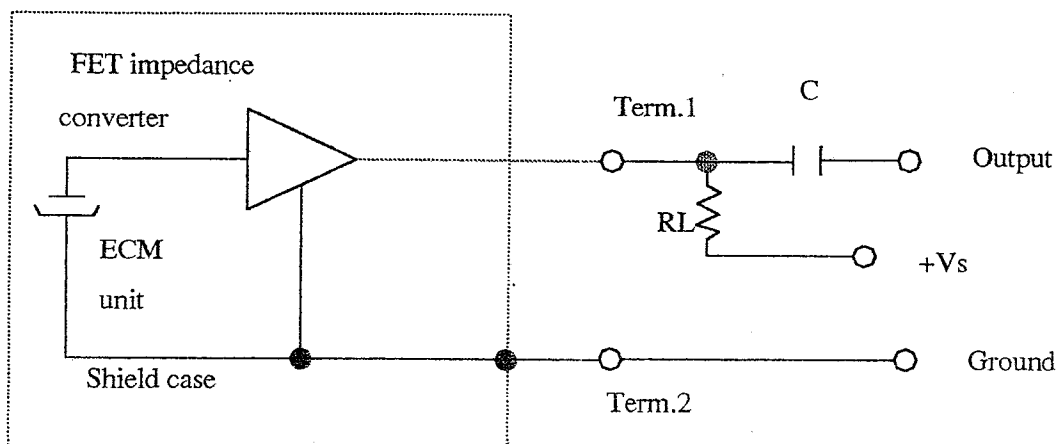
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SPECIFICATION

Item	Symbol	Test conditions	Min	Standard	Max	Unit
Sensitivity	S	f=1KHz. Pin=1pa	-46	-44	-42	dB <small>0dB=1V/pa</small>
Directivity	Omnidirectional					
Impedance	Zout				2.2	KΩ
Current consumption	I	f=1KHz. Pin=1pa			450	uA
Sensitivity reduction	ΔS	f=1KHz. Pin=1pa. Vs=4.5→1.5V			-3	dB
S/N ratio	S/N(A)	f=1KHz. Pin=1pa. A=curve	60			dB

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

Ta=20°C R.H=65%)

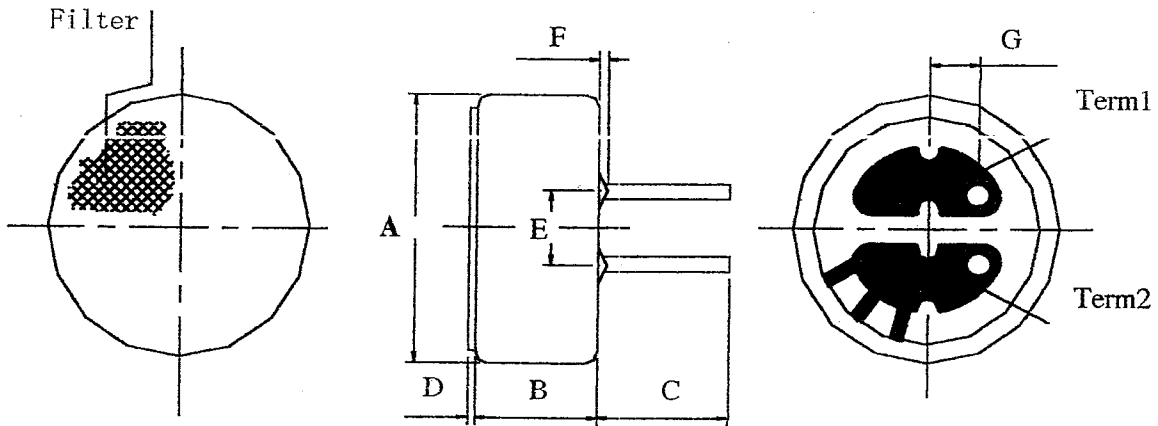


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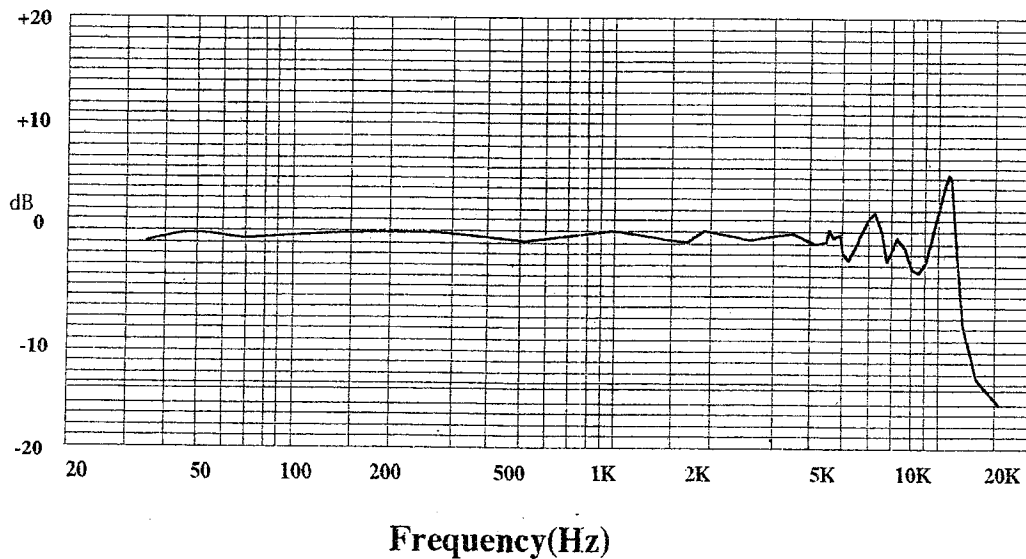
Dimensional Drawing

unit: mm



PART	MIN	TYPE	MAX	REMARK
A	Ø9.6	Ø9.7	Ø9.8	
B	4.3	4.5	4.7	
C	4	5	6	
D	-	-	0.2	
E	-	2.54	-	
F			0.6	
G	1.9	2	2.1	

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 $-20^{\circ}\text{C} \pm 3^{\circ}\text{C}$ 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 $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$.

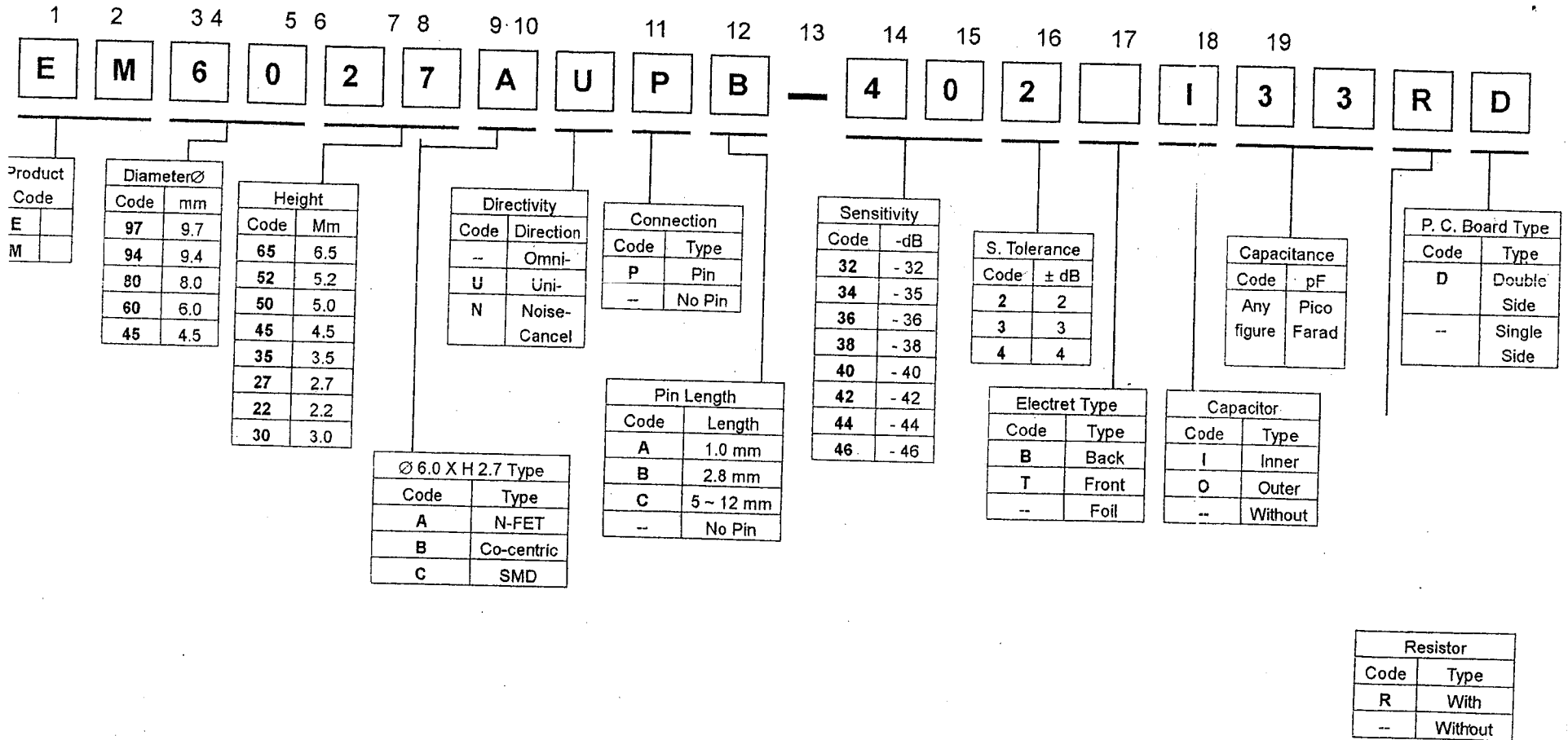
7) Collision Test

After collided with the acceleration $100 \pm 10\text{m/s}$, 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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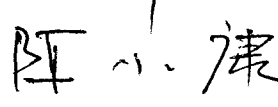
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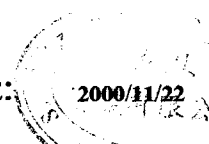
CUSTOMER: Digi-Key Corporation

APPROVE SHEET

PRODUCT NAME	TYPE	DIMENSION	
Electret Condensèr Microphone	EM9752N-51	Ø9.7×5.2(mm)	

APPROVED :  DATE: 2000.11.25

CHECKED BY:  DATE: 2000.11.25

ISSUED BY: 陳為波 DATE: 

APPROVED BY

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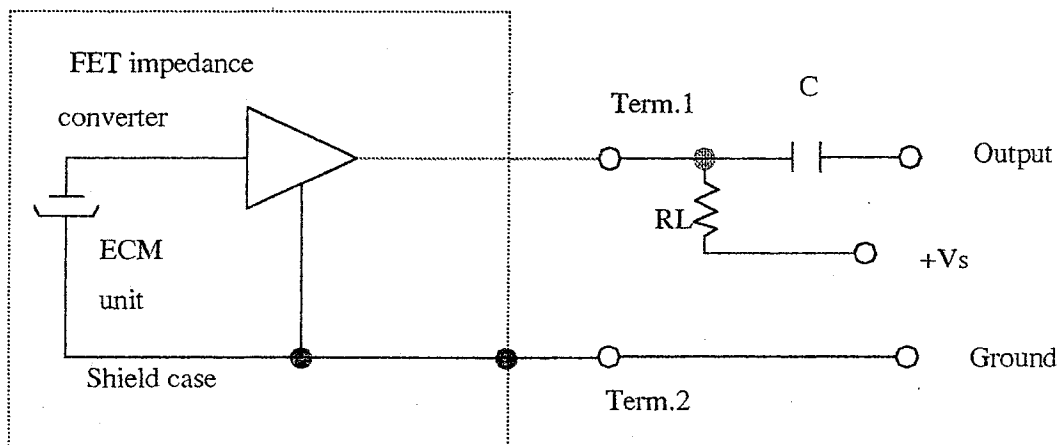
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SPECIFICATION

Item	Symbol	Test conditions	Min	Standard	Max	Unit
Sensitivity	S	f=1KHz. Pin=1pa	-55	-51	-47	dB <small>0dB=1V/pa</small>
Directivity	Noise canceling					
Impedance	Zout				680	Ω
Current consumption	I	f=1KHz. Pin=1pa			500	μ A
Sensitivity reduction	Δ S	f=1KHz. Pin=1pa. Vs=1.5→1V			-3	dB
S/N ratio	S/N(A)	f=1KHz. Pin=1pa. A=curve	58			dB

Measurement Circuit (Test Condition Vs=1.5V RL=680 Ω)

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

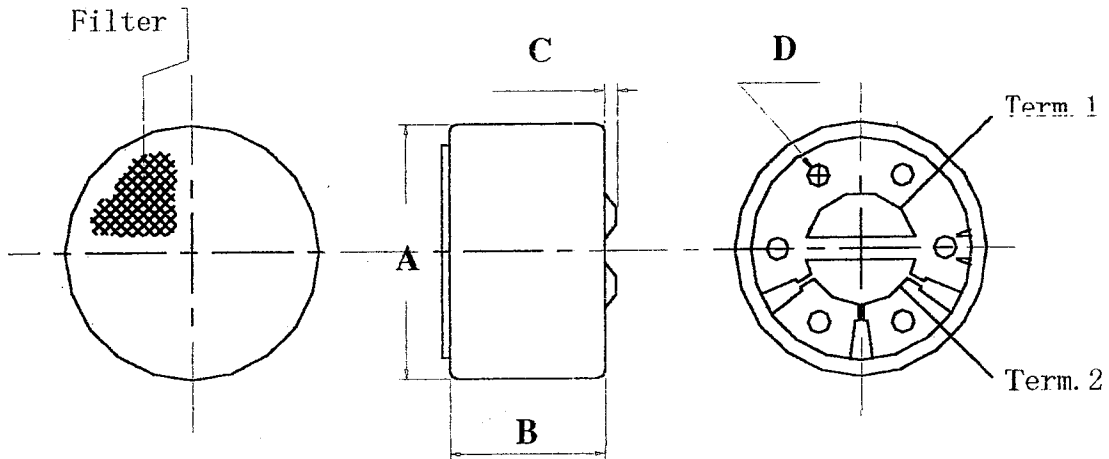


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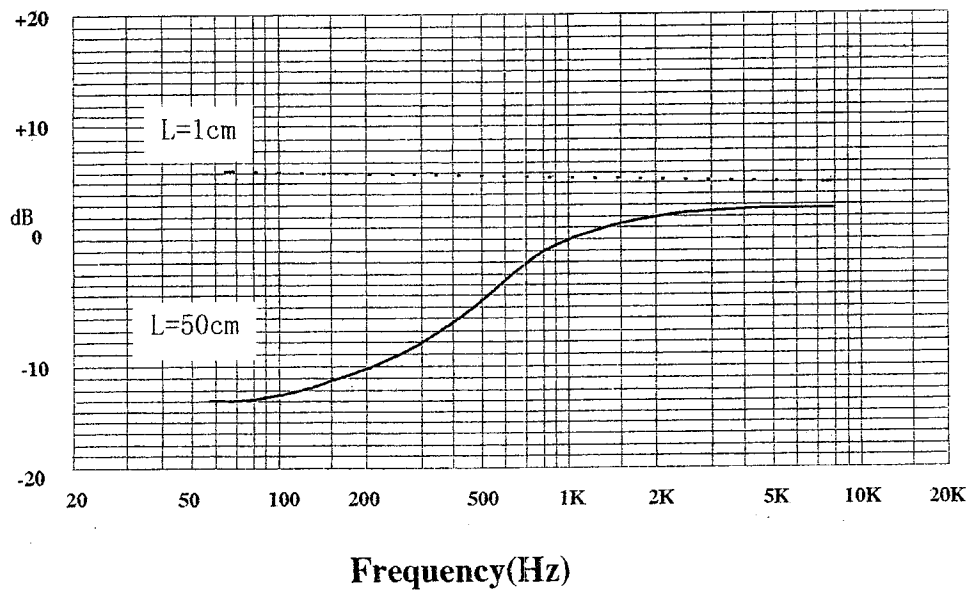
Dimensional Drawing

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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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 $55 \pm 2^{\circ}\text{C}$ 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 ± 10 times. at the state of packing. Change of sensitivity within $\pm 3\text{dB}$ from initial.

