

Address:
Block 17, Tongfuyu Ind. Zone,
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Tel: (86)755-28030883 / 28030786 / 28030751
Fax: (86)755-28030747
E-mail: rd@horn.com.cn
Website: www.horn.com.cn

CUSTOMER:

APPROVAL SHEET

PRODUCT NAME	PART NUMBER	DIMENSION	REMARK
Electret Condenser Microphone	EM6018SMT-42BC10&33	φ6.0×1.8(mm)	D.S.PCB

APPROVED BY	CHECKED BY	ISSUED BY

APPROVED BY

DATE:

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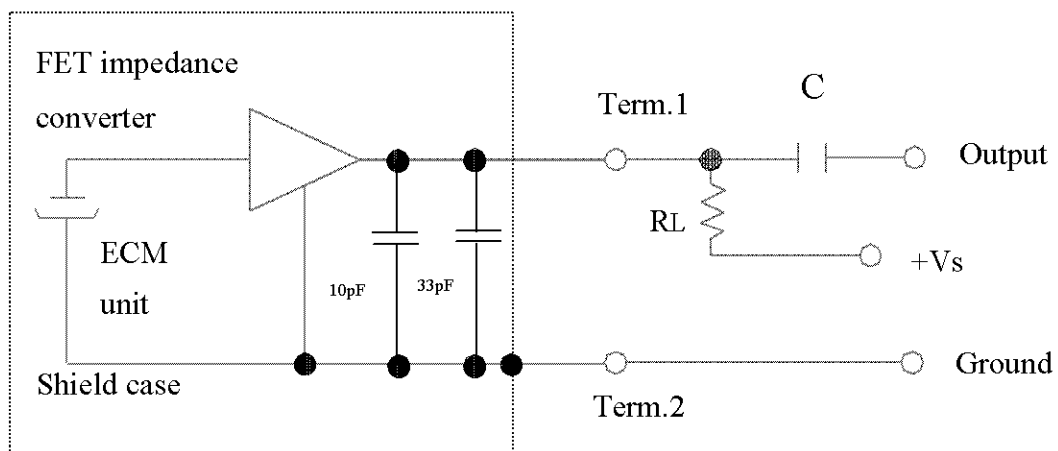
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SPECIFICATION

Item	Symbol	Test conditions	Min	Standard	Max	Unit
Sensitivity	S	f=1KHz.Pin=1Pa	-46	-42	-38	dB 0dB=1V/Pa
Directivity	Omnidirectional					
Impedance	Zout				2.2	KΩ
Input sound Pressure level	S.P.L				100	dB
Operation voltage	Vs	-	1.0	2.0	10	V
Current consumption	I	f=1KHz.Pin=1Pa			500	uA
Sensitivity reduction	ΔS	f=1KHz.Pin=1Pa Vs=2.0→1.5V			-3	dB
S/N ratio	S/N(A)	f=1KHz.Pin=1Pa A=curve	58			dB

Measurement Circuit(Test Condition Vs=2.0V RL=2.2KΩ

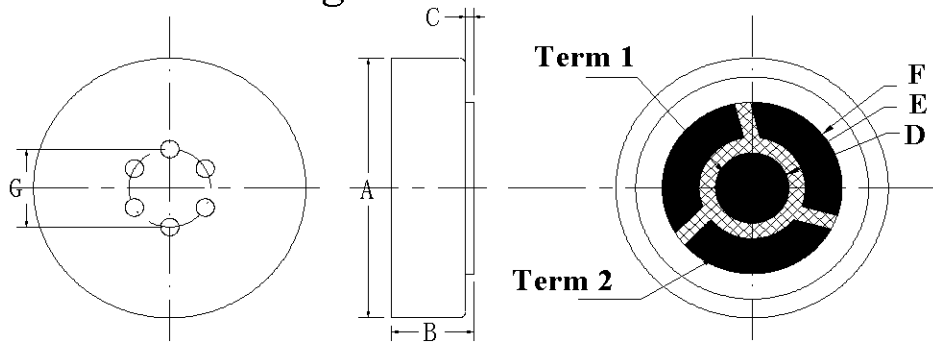
Ta=20°C R.H=65%)



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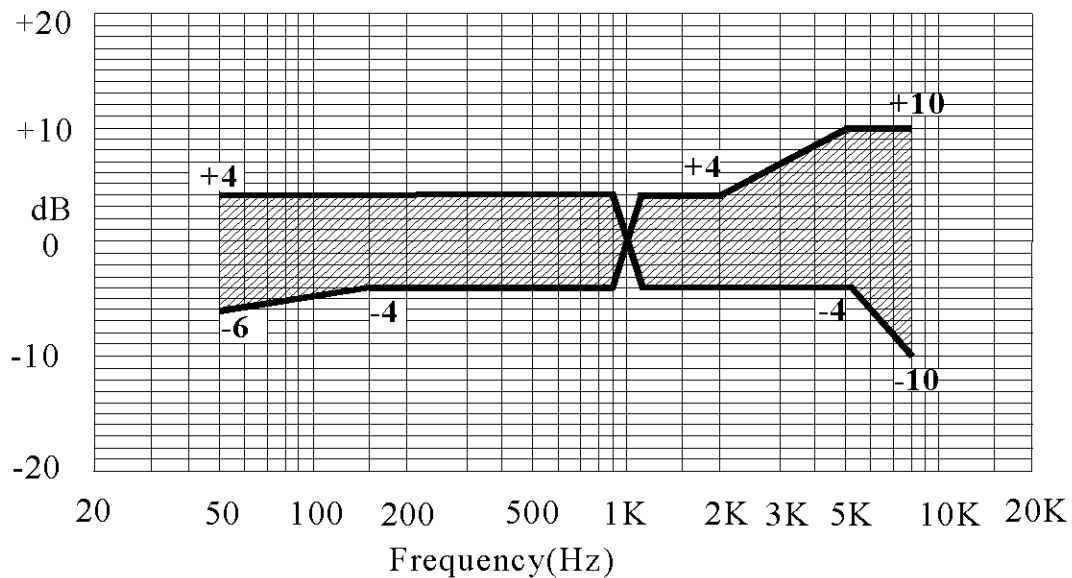
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Dimensional drawing



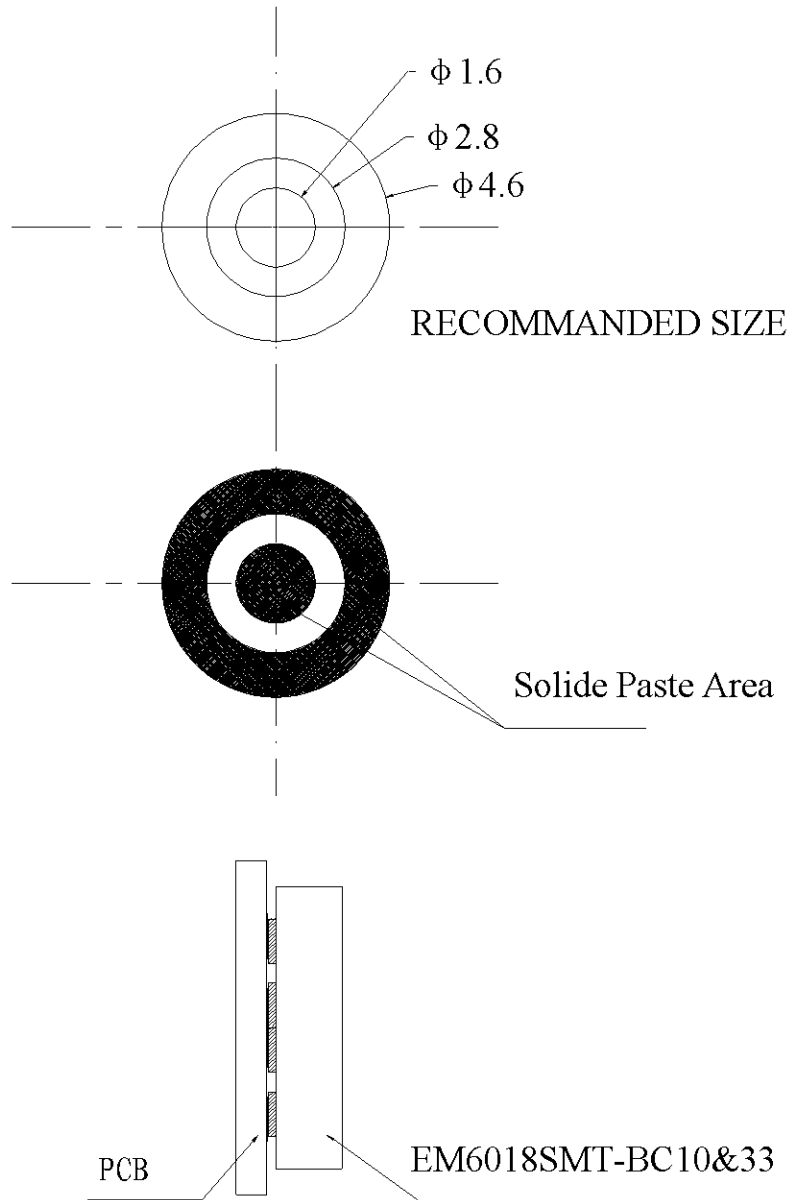
PART	MIN	STANDARD	MAX	REMARK
A	φ5.9	φ6.0	φ6.1	
B	1.6	1.8	2.0	
C	0.1	0.15	0.2	
D	φ1.6	φ1.8	φ2.0	
E	φ2.5	φ2.6	φ2.7	
F	φ4.2	φ4.4	φ4.6	
G	φ1.9	φ2.0	φ2.1	

Typical Frequency Response Curve



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Ambient condition

(1) Operating condition

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

Relative humidity: $\leq 85\%$

(2) Storage condition

Ambient temperature: $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$

Relative humidity: $45\% \sim 75\%$

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 Test

To be no interference in operation after high temperature test $100 \pm 3^{\circ}\text{C}$ for 240 hours. The sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.

4) Isotherm & Iso-humidity Test

To be no interference in operation after storage test at temperature $100 \pm 2^{\circ}\text{C}$ and relative humidity ($93 \pm 3\%$) for 240 hours. The sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity. The test is performed at temperature 20°C after operation for 6 hours.

5) Low Temperature Test

To be no interference in operation after high temperature test $-20 \pm 3^{\circ}\text{C}$ for 240 hours, the sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.

6) Temperature Cycle Test

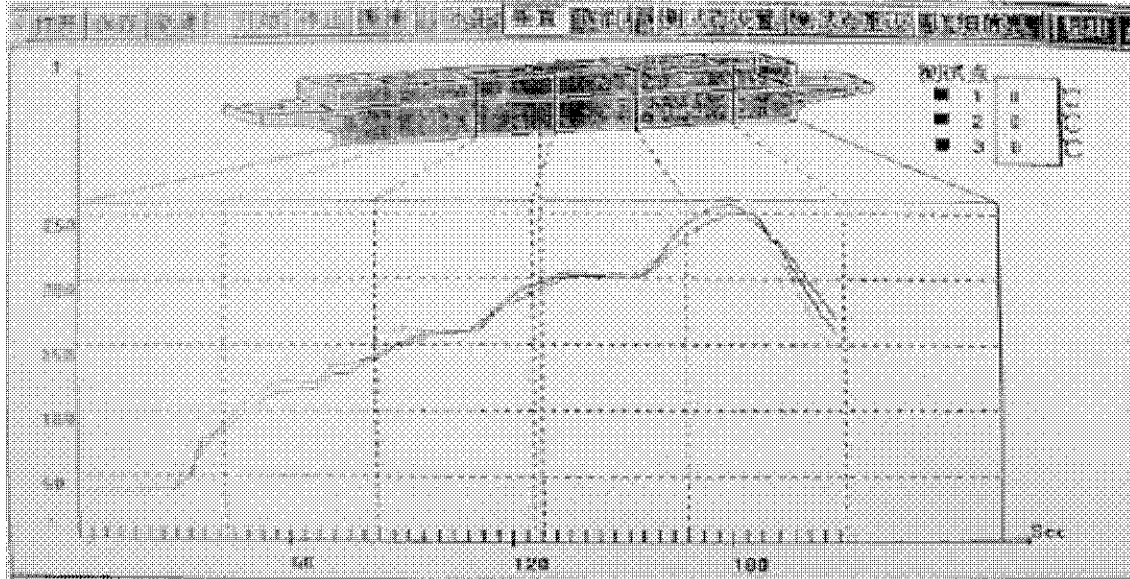
After exposure at $+55 \pm 2^{\circ}\text{C}$ for 1 hour, at $20 \pm 2^{\circ}\text{C}$ for 1 hour, at $-10 \pm 2^{\circ}\text{C}$ for 1 hour, at $20 \pm 2^{\circ}\text{C}$ for 1 hour, with 5 cycles. Change of sensitivity within $\pm 3\text{dB}$ from initial measuring should be done after 2 hours exposed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

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Important Notes

To use with an automatic soldering machine and its temperature should be less than 260°C



Packaging Detail

Plastic Reel (PS) :

单位: (mm)

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PART	MIN	STANDARD	MAX
A	Ø178	Ø180	Ø182
B	2.3	4.3	6.3
C	Ø12.8	Ø13	Ø13.2
D	Ø23.9	Ø24.4	Ø24.9
N	Ø54.5	Ø55	Ø55.5
W1	15.8	16.0	16.2
W2	18.2	18.4	18.6

Carrier Tape:

