KEEN SIDE
electronics

Electro-Magnetic Buzzer (SMD type)

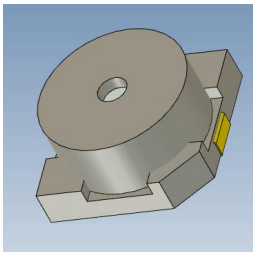
2-4	HCS1205C
5-7	HCS0903H
8-10	HCS0905H

1. Product type: Electro-Magnetic Buzzer (SMD Type)

2. Technical Parameter

Measuring condition

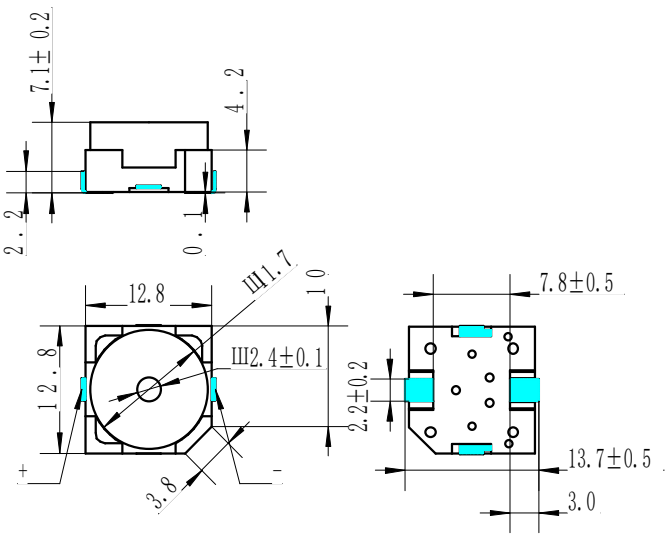
Part shall be measured under a condition (Temperature: 5 ~ 35℃, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3℃, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.



1	Rated Voltage	5Vo-p
2	Operating Voltage	3～8Vo-p
3	Rated Current	Max.160mA ,at 2400Hz 50% duty Square Wave 5Vo-p
4	Sound Output at 10cm	Min. 85dB,at 2400Hz 50% duty Square Wave 5Vo-p
5	Coil Resistance	8±1Ω
6	Resonant Frequency	2400Hz
7	Operating Temperature	-40℃ ~+85℃
8	Store Temperature	-40℃ ~+85℃
9	Net Weight	Approx 1.8g
10	RoHS	Yes

3. Dimensions

Unit: mm



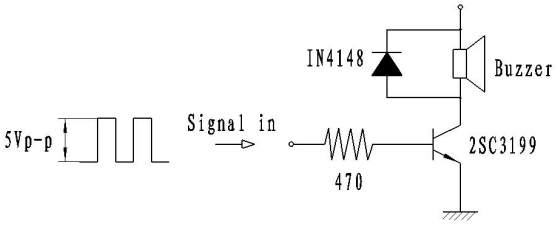
*Unit: mm; Tolerance: ±0.3mm Except Specified

*Housing Material: Black LCP

*Terminal plate: 2 soldering pads, tin Plating Brass

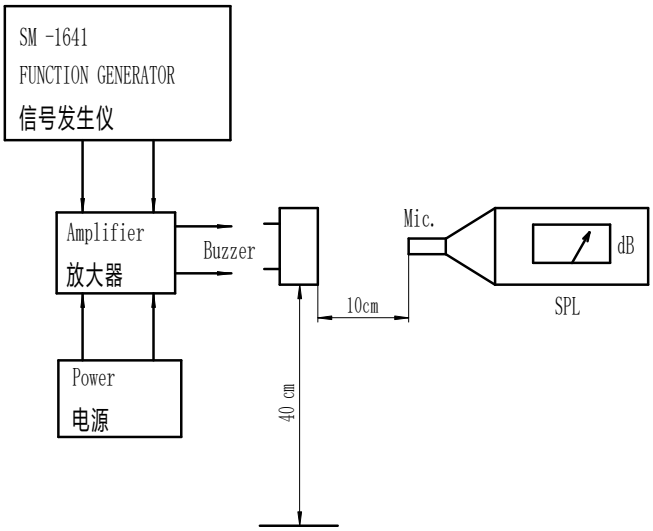
4. Electrical And Acoustical Measuring Condition

Recommended Driving Circuit

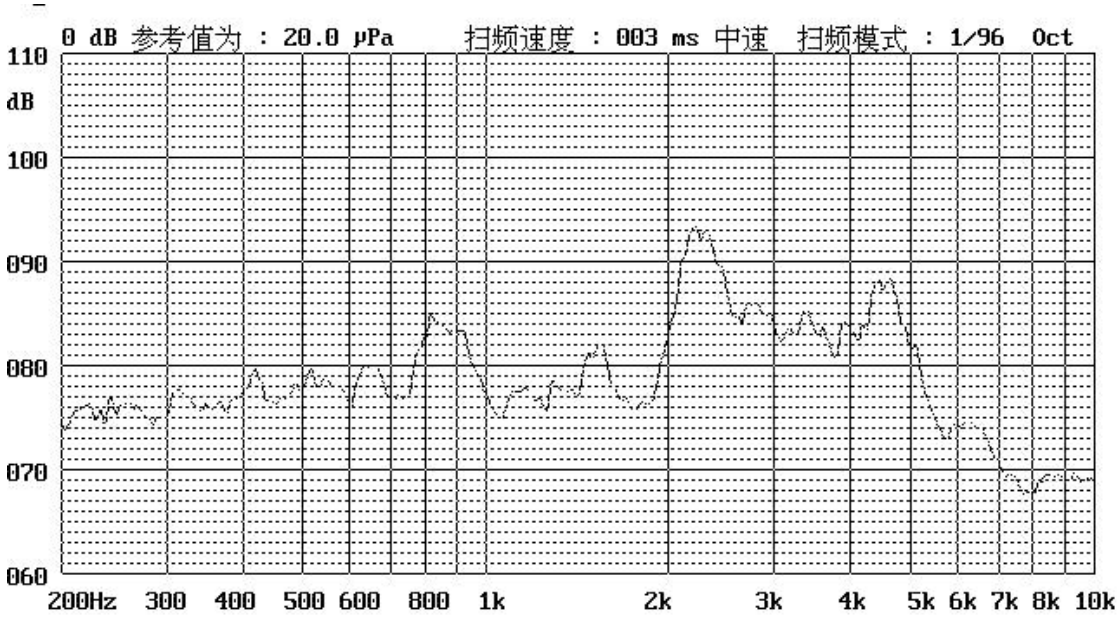


Resonant frequency, 1/2 duty cycle. Square wave. Signal amplitude should be large enough tosaturate the transistor.

Recommended Setting



5. Frequency Response

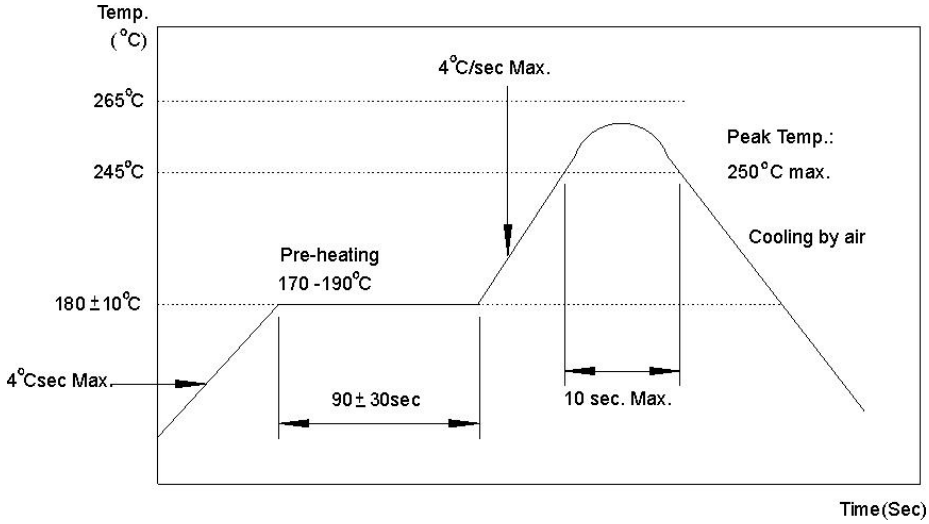


5Vo-p 50% duty Square wave,10cm

6.Surface mounting condition

6.1 Reflow soldering

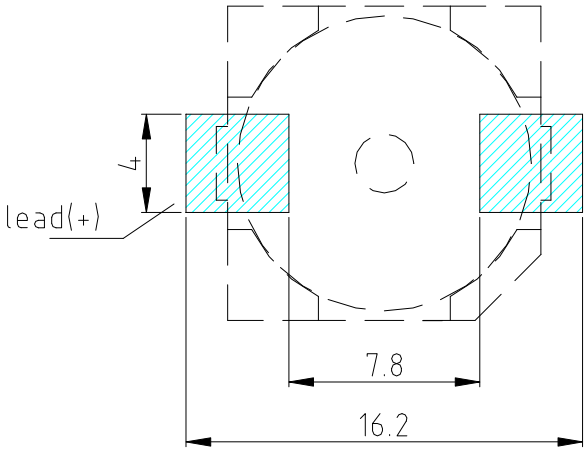
Recommendable reflow soldering condition is as follows.



Note: (1) In automated mounting of the SMD sound transducers on PCB, any bending, expanding and pulling forces or shocks against the SMD sound transducers shall be kept minimum to prevent them from electrical failures and mechanical damages of the devices.

(2) In the reflow soldering, too high soldering temperatures and too large temperature Gradient such as rapid heating or cooling may cause electrical failures and mechanical damages of the devices.

6.2 Soldering pattern

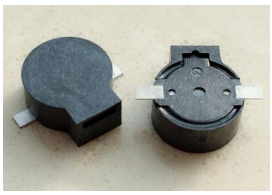


1. Product type: Electro-Magnetic Buzzer (SMD Type)

2. Technical Parameter

Measuring condition

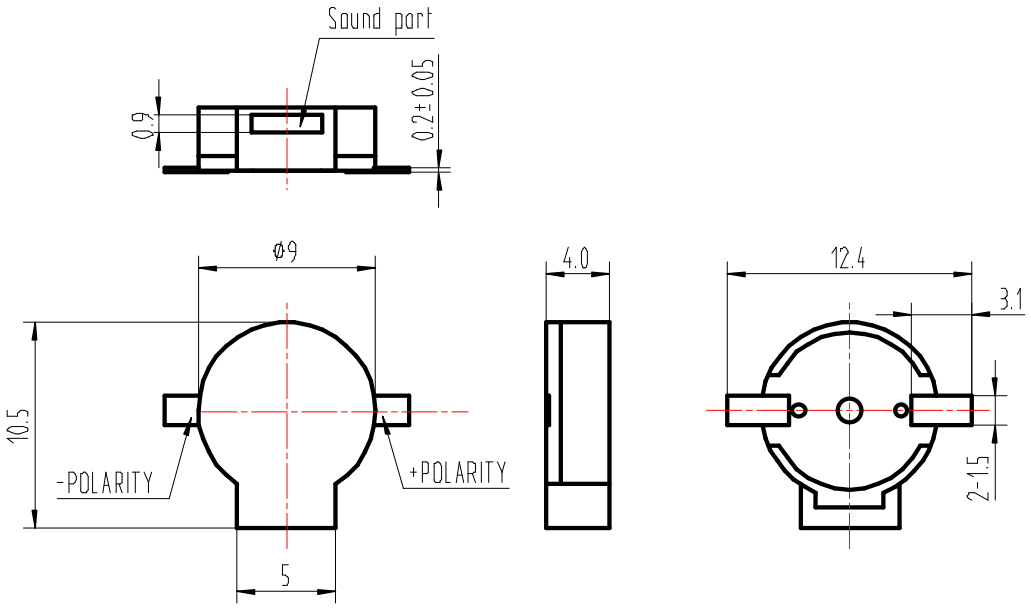
Part shall be measured under a condition (Temperature: 5 ~ 35℃, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3℃, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.



1	Rated Voltage	3Vo-p
2	Operating Voltage	2 ~ 4Vo-p
3	Rated Current	Max.80mA ,at 2730Hz 50% duty Square Wave 3Vo-p
4	Sound Output at 10cm	Min. 90dB,at 2730Hz 50% duty Square Wave 3Vo-p
5	Coil Resistance	16±3Ω
6	Resonant Frequency	2730Hz
7	Operating Temperature	-20℃ ~+70℃
8	Store Temperature	-40℃ ~+85℃
9	Net Weight	Approx 0.4g
10	RoHS	Yes

3. Dimensions

Unit: mm



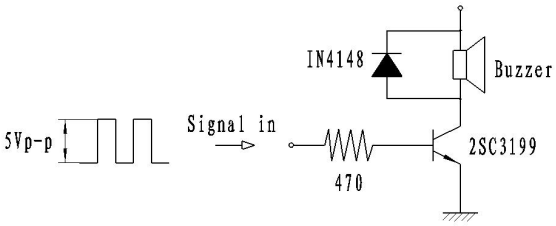
*Unit: mm; Tolerance: ±0.3mm Except Specified

*Housing Material: Black LCP

*Terminal plate: 2 soldering pads, tin Plating Brass

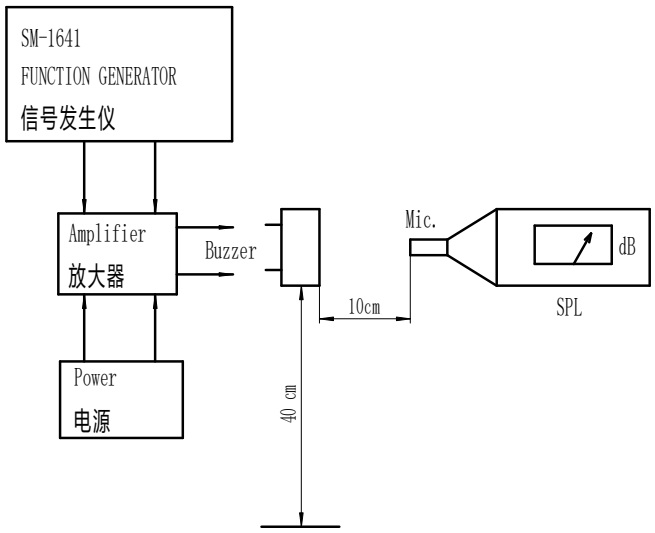
4. Electrical And Acoustical Measuring Condition

Recommended Driving Circuit

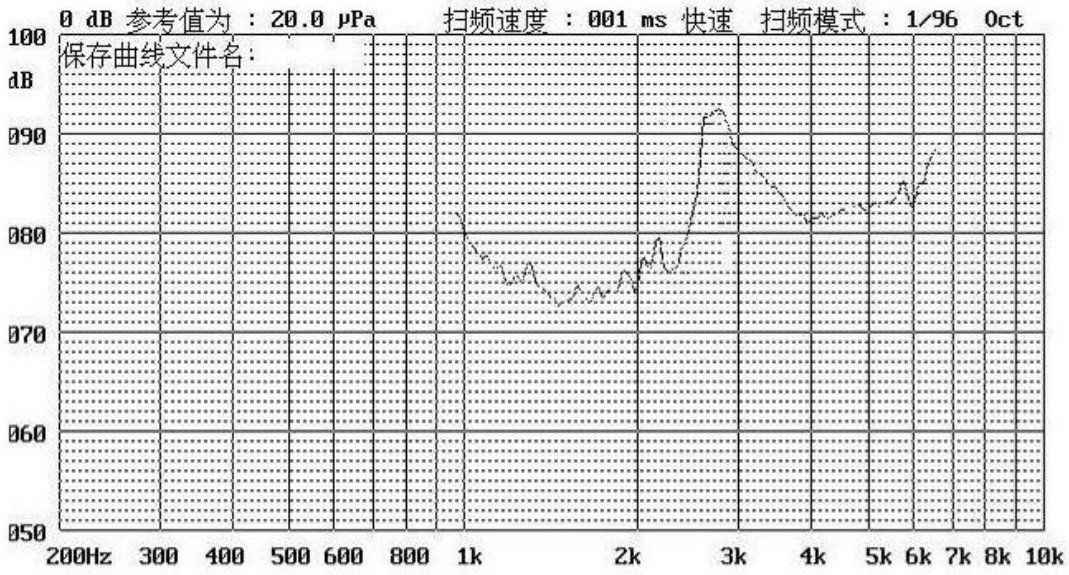


Resonant frequency, 1/2 duty cycle. Square wave. Signal amplitude should be large enough tosaturate the transistor.

Recommended Setting



5. Frequency Response

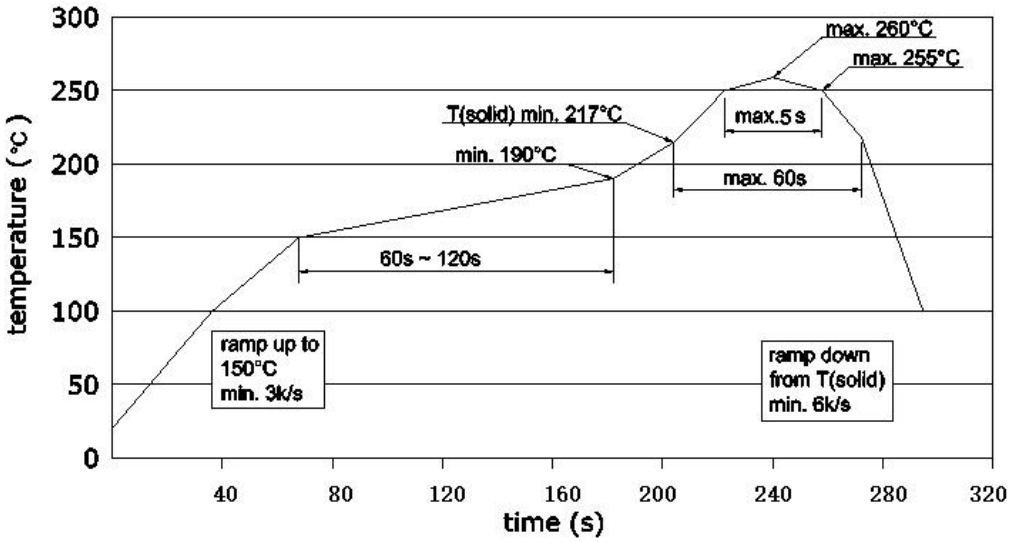


3Vo-p 50% duty Square wave,10cm

6. Surface mounting condition

6.1 Reflow soldering

Recommendable reflow soldering condition is as follows.

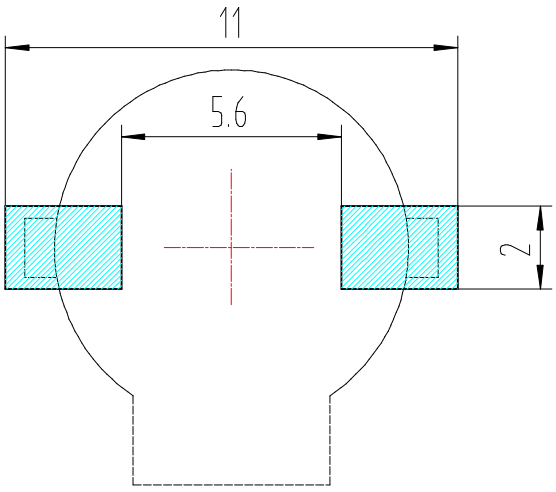


Recommended reflow oven temperature profile

Note: (1) In automated mounting of the SMD sound transducers on PCB, any bending, expanding and pulling forces or shocks against the SMD sound transducers shall be kept minimum to prevent them from electrical failures and mechanical damages of the devices.

(2) In the reflow soldering, too high soldering temperatures and too large temperature Gradient such as rapid heating or cooling may cause electrical failures and mechanical damages of the devices.

6.2 Soldering pattern



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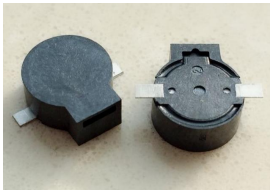
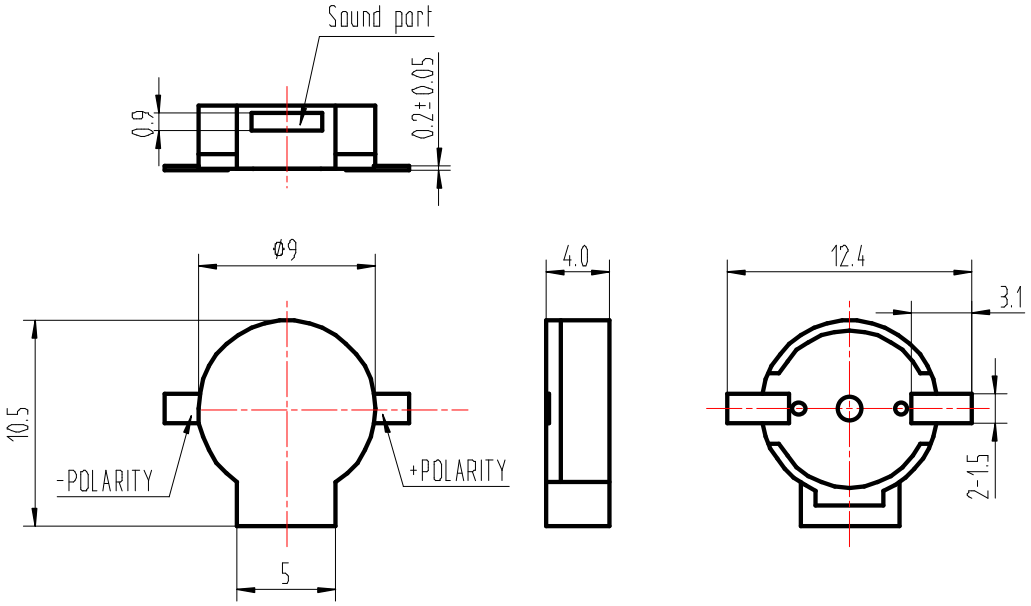


1	Rated Voltage	5Vo-p
2	Operating Voltage	4 ~ 6Vo-p
3	Rated Current	Max.80mA ,at 2730Hz 50% duty Square Wave 5Vo-p
4	Sound Output at 10cm	Min. 90dB,at 2730Hz 50% duty Square Wave 5Vo-p
5	Coil Resistance	30±3Ω
6	Resonant Frequency	2730Hz
7	Operating Temperature	-20℃ ~+70℃
8	Store Temperature	-40℃ ~+85℃
9	Net Weight	Approx 0.4g
10	RoHS	Yes

3. Dimensions

Unit: mm



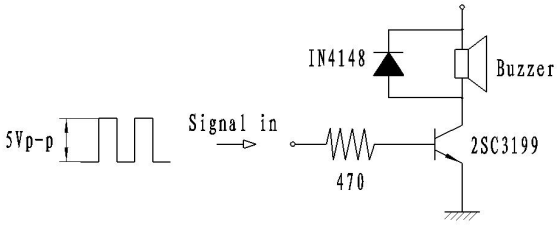
*Unit: mm; Tolerance: ±0.3mm Except Specified

*Housing Material: Black LCP

*Terminal plate: 2 soldering pads, tin Plating Brass

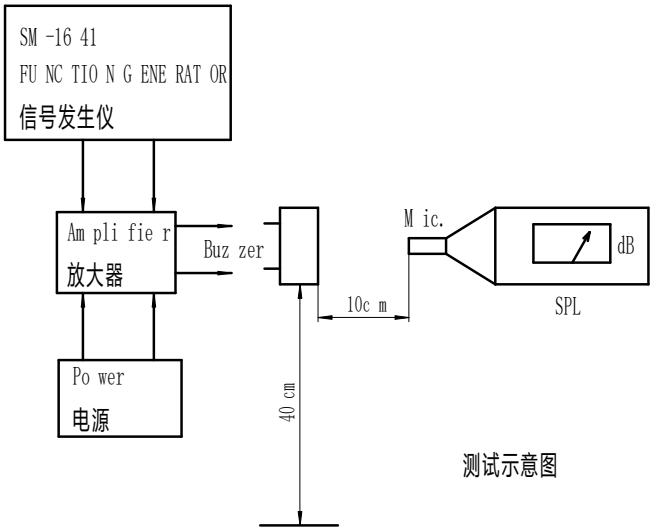
4. Electrical And Acoustical Measuring Condition

Recommended Driving Circuit



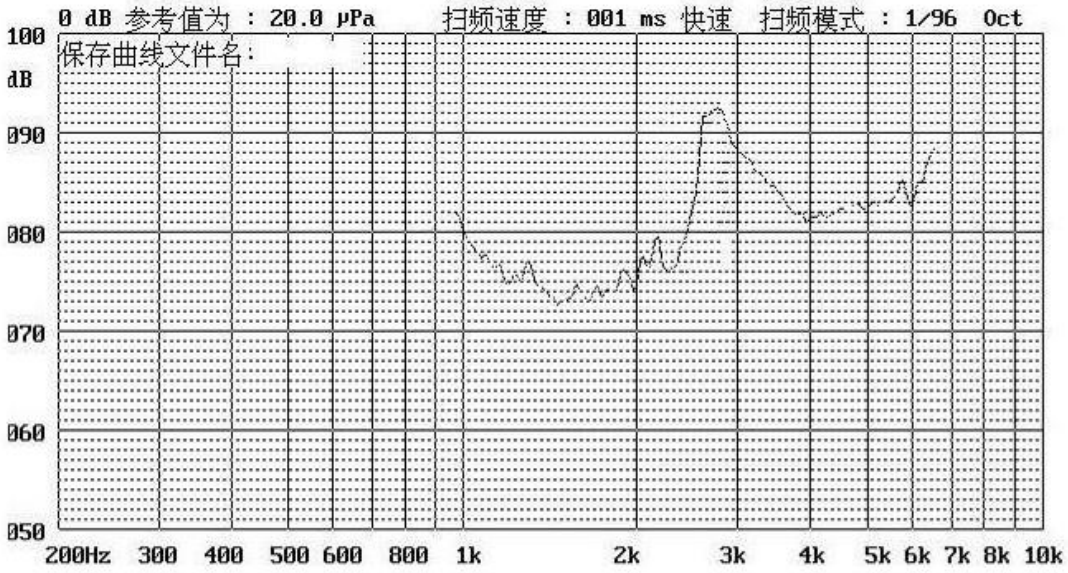
Resonant frequency, 1/2 duty cycle. Square wave. Signal amplitude should be large enough tosaturate the transistor.

Recommended Setting



测试示意图

5. Frequency Response



5Vo-p 50% duty Square wave,10cm

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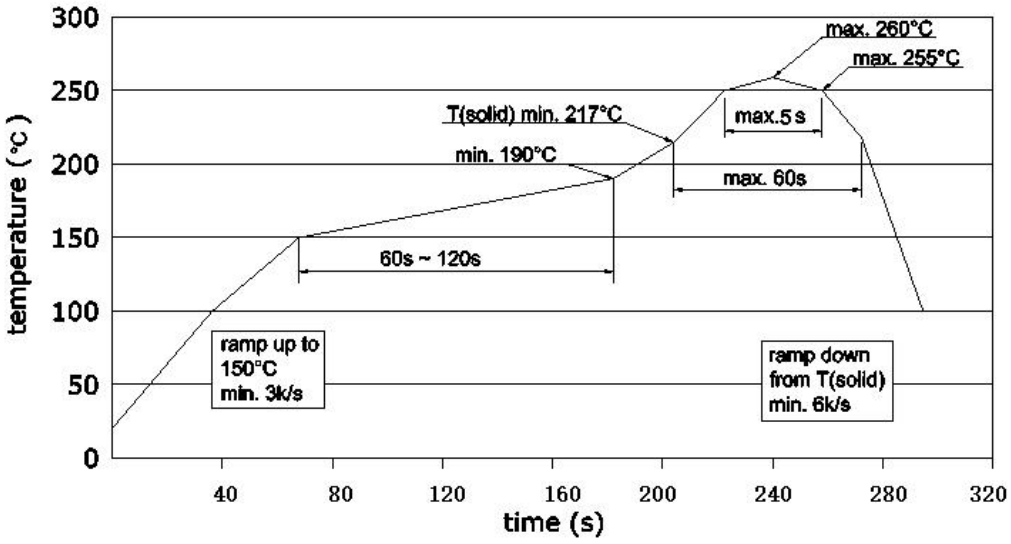

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