

SPECIFICATION

SHEET FOR APPROVAL

(Revision: 2008A Update: 00)

CUSTOMER:

PRODUCT: ELECTROMAGNETIC BUZZER

MODEL NUMBER: HCM1012

CUSTOMER PART NUMBER: 9.6×5 NORYL

ELECTROMAGNETIC BUZZER

HCM1012



FEATURES:

Case: NORYL

Pin: Pins' storage time \leq 5 months \leq 75 % R.H Electroplating: tin

This product conforms to the standard of ROHS

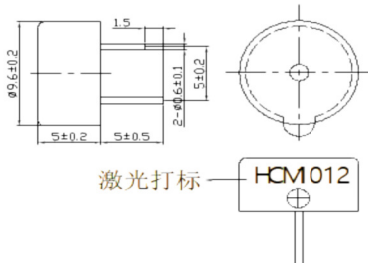
SPECIFICATIONS

TYPE	UNIT	HCM1012
◆ Min. Sound Output at 10cm	dB	80
Rated Voltage	V _{0-p}	12
Operating Voltage	V _{0-p}	8~15
◆ Resonant Frequency	Hz	2600±300
◆ Max. Current Consumption	mA	30
Operating Temperature	°C	-20~+70
Storage Temperature	°C	-30~+80
Weight	g	1

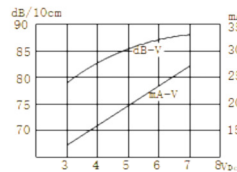
◆ Value applying at (rated voltage, 2730 Hz, 1/2 duty square wave)

◇ Value applying at (2730 Hz, sine wave, measuring current 60μA)

DIMENSIONS : (Unit: mm)



FREQUENCY RESPONSE:



ELECTROMAGNETIC BUZZER

➤ 1. SCOPE

THESE SPECIFICATIONS APPLIED TO THE ABOVE MENTIONED ELECTROMAGNETIC TRANSDUCER.

➤ 2. MECHANICAL CHARACTERISTICS

2-1 EXTERNAL DIMENSION

THE EXTERNAL DIMENSION, INDICATION ARE AS SHOWN IN DRAWING SHEETS.

2-2 APPEARANCES

THE FINISHING SHALL NOT BE ACCOMPANIED BY REMARKABLE RUST, DISTORTION, CREAK, ETC.

2-3 TENSILE STRENGTH OF TERMINAL PINS

EACH TERMINAL PIN SHALL BE NO ABNORMALITY WHEN THE EQUIPMENT IS PROPERLY FIXED AND 1kg OF LOAD IS GIVEN FOR 30±5 SECONDS IN AXIS DIRECTION OF TERMINAL.

➤ 3. ELECTRICAL CHARACTERISTICS(AT 25 °C)

3-1	OPERATING VOLTAGE	V _{0-p}	8~15
3-2	RATED VOLTAGE	V _{0-p}	12
3-3	RESONANT FREQUENCY	Hz	2600±300
3-4	RATED CURRENT	mA	30
3-5	SOUND PRESSURE LEVEL	dB	80
3-8	OPERATING TEMPERATURE	°C	-20 +70
3-9	STORAGE TEMPERATURE	°C	-30 +80

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ELECTROMAGNETIC BUZZER

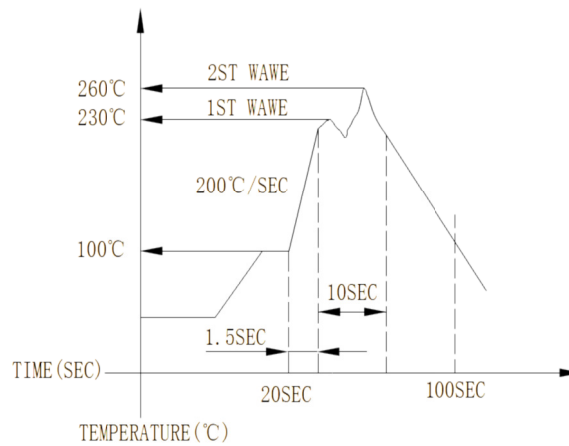
➤ 4. RELIABILITY TEST

NO.	ITEM	TESTING CONDITION	VARIANCE AFTER TEST
4-1	HUMIDITY	55±5°C,95±3%RH 96HRS	SOUND PRESSURE LEVEL INITIAL VALUE±10%
4-2	HIGH TEMP.	+80±2°C,96HRS	
4-3	LOW TEMP	-30±2°C,96HRS	
4-4	TEMPERATURE CYCLING	-30±2°C 30 MINUTES ROOM TEMP. 10 MINUTES +80±2°C 30 MINUTES ROOM TEMP. 10 MINUTES 25 CIRCLES	
4-5	DROP TEST	HEIGHT FROM 70CM HEIGHT ONTO HARD WOOD OR STEEL SURFACE Number OF DROPS 6 POSITIONS X, Y, Z	

NOTE:

- 1.TEST ITEM 4-4 AND 4-5 SHALL BE CONDUCTED WITH CIRCUIT STATE.
- 2.TEST SPECIMENS SHALL BE KEPT FOR 4 HRS,25°C BEFORE MEASUREMENT.

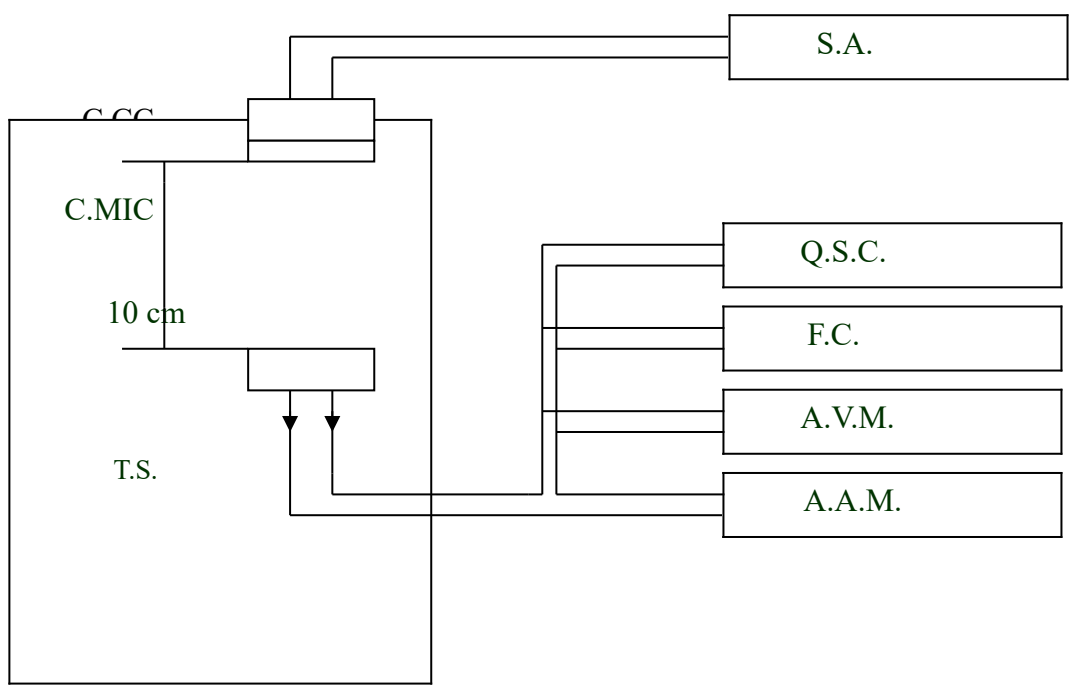
➤ 5. THE CHART OF WAVE SOLDERING TEMPERATURE



This Chart only shows the soldering temperature of the pins; but the part of the shell could not overrun 80°C

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➤ 5. ELECTRICAL CHARACTERISTICS TEST METHOD



S.A. : SPECTRUM ANALYAER

F. C. : FREQUENCY COUNTER

A.A.M.: AC AMPERE METER

S.R. : SOUNDPROOF ROOM

A.V.M.: AC VOLT. METER

C.MIC : CONDENSER MIC

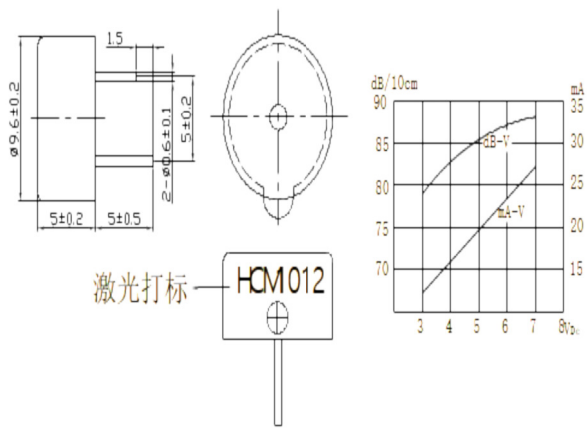
T.S. : TEST SAMPLE

Q.S.C.: OSCILLATOR

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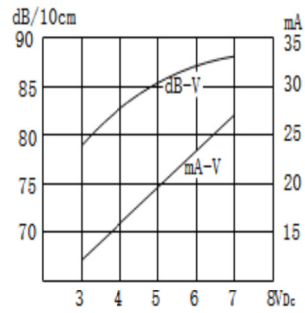
➤ 6. DIMENSION (UNIT:mm)



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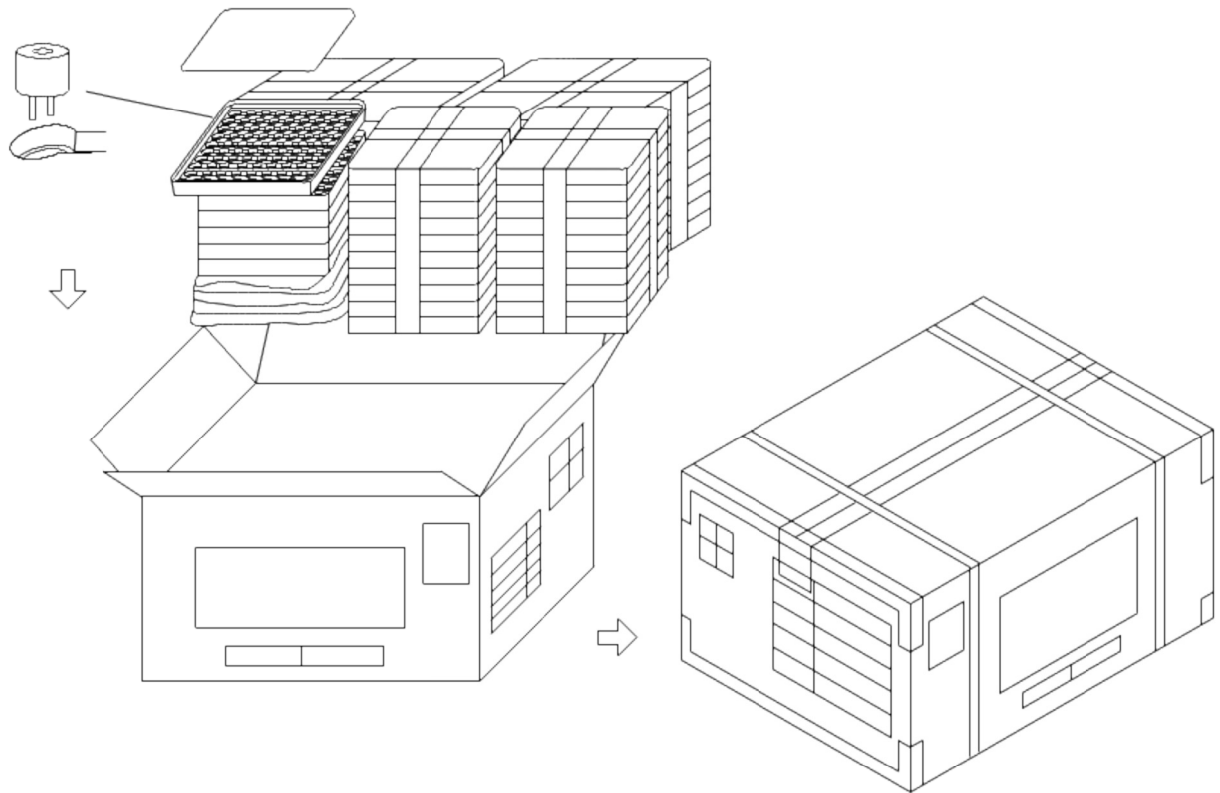
➤ 7. FREQUENCY RESPONSE (typical curve)



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➤ **8.PACKING FORMAT (UNIT:cm)**



ELECTROMAGNETIC BUZZER
QTY: 5000PCS
VOLUME: 50×41.5×27CM

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