

APPROVAL SHEET



FHD ELECTRONICS CORPORATION

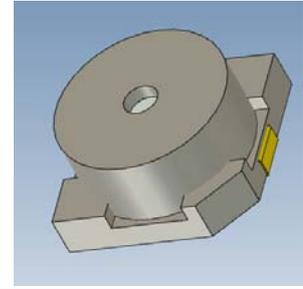
CUSTOMER NAME : _____
COMMODITY : MAGNETIC INDICATOR
FHD PART NO. : I121271-MC2300G-SH
CUSTOMER PART NO. : _____

Approved by	YJ	Prepared by	Vivian Shen
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Customer Approval			
Approved		Rejected	

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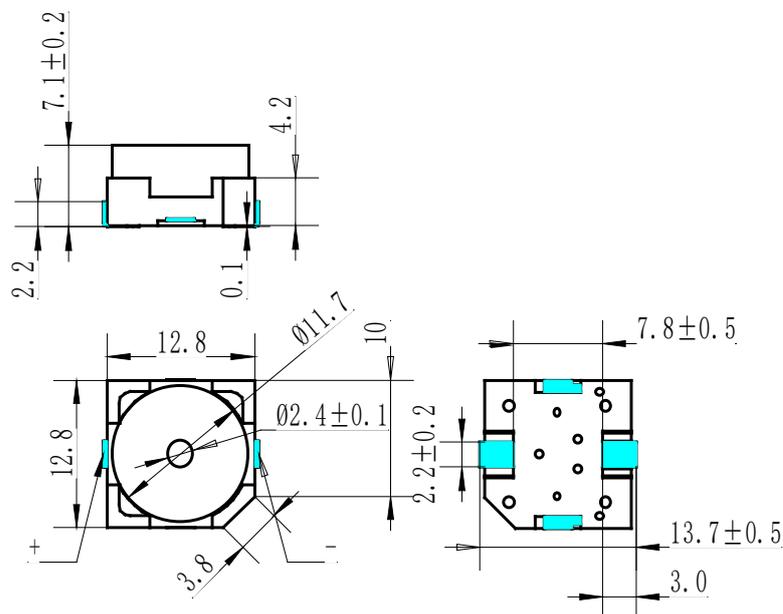
A. PART NO.: I121271-MC2300G-SH



B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Oscillation Frequency	Hz	2300 ± 300	
2	Operating Voltage	VDC	4 ~ 7	
3	Rated Voltage	VDC	5	
4	Current Consumption	mA	MAX. 30	at 5VDC
5	Sound Pressure Level	dB	MIN. 85	at 5VDC, 10cm
6	Coil Resistance	Ω	/	
7	Operating Temperature	°C	-30 ~ +80	
8	Storage Temperature	°C	-40 ~ +85	
9	Dimension	mm	12.8 x 12.8, H7.1	See appearance drawing
10	Weight (MAX)	gram	1.8	
11	Material		LCP (black)	
12	Tone		Continuous	
13	Environmental Protection Regulation		RoHS	

C. APPEARANCE DRAWING



Tolerance: $\pm 0.3\text{mm}$ Unit: mm

D. RELIABILITY TEST

After any following tests the part shall meet specifications without any degradation in appearance and performance except SPL. SPL shall not deviate more than -10 dB from the initial value

1. Ordinary Temperature Life Test

The part shall be subjected to 96 hours at $25 \pm 10^\circ\text{C}$. Input rated voltage
Resonant frequency, 1/2 duty Square wave.

2. High Temperature Test

The part shall be capable of withstanding a storage temperature of $+85^\circ\text{C}$ for 96 hours.

3. Low Temperature Test

The part shall be capable of withstanding a storage temperature of -40°C for 96 hours.

4. Humidity Test

Temperature: $+40^\circ\text{C} \pm 3^\circ\text{C}$ Relative Humidity: 90%~95% Duration: 48 hours and expose to room Temperature for 6 hours.

5. Temperature Shock Test

Temperature: 70°C /1hour \rightarrow 25°C /3hours \rightarrow -30°C /1hour \rightarrow 25°C /3hours (1 cycle)
Total cycle: 10 cycles

6. Drop Test

Standard Packaging is fallen from height 75cm on a thickness 5cm hard wood or board, three sides, six plain.

7. Vibration Test

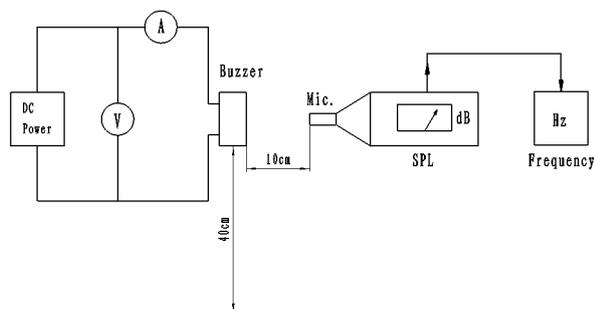
Vibration: 1000cycles /min. Amplitude: 1.5mm, Duration: 1 hour in each 3 axes

Note:

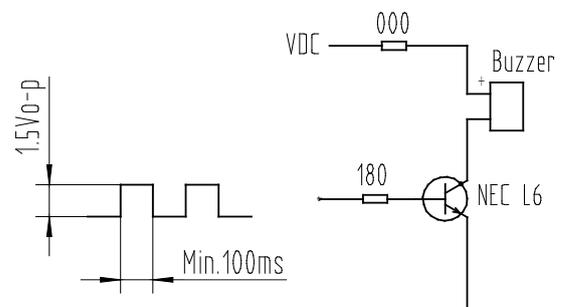
As this product is not protected from foreign material entering, please make sure that any foreign materials (e.g. magnetic powder, washing solvent, flux, corrosive gas) do not enter this product in your production processes. The functional degradation (e.g. SPL down) may occur if foreign material enter it.

E. ELECTRICAL and ACOUSTICAL MEASURING CONDITION

a) Recommended Setting

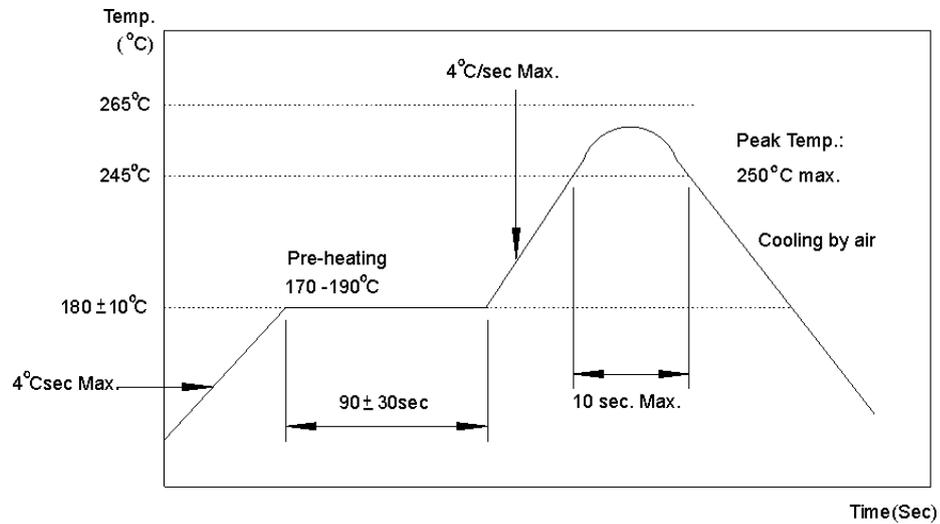


b) Recommended Test Circuit



F. RECOMMENDED THE WAVE SOLDERING TEMPERATURE

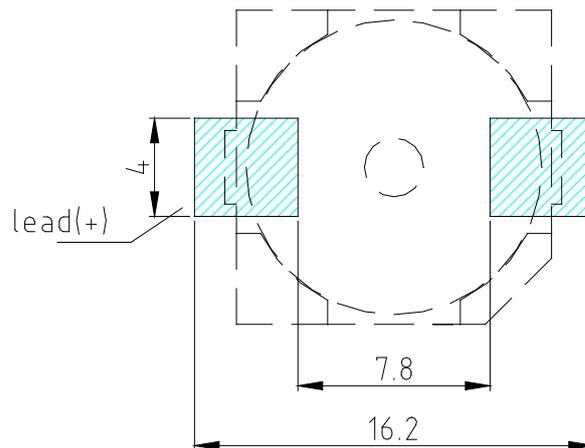
1. Recommendable reflow soldering condition is as follows



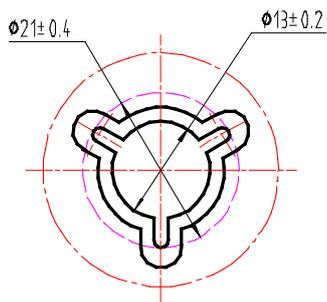
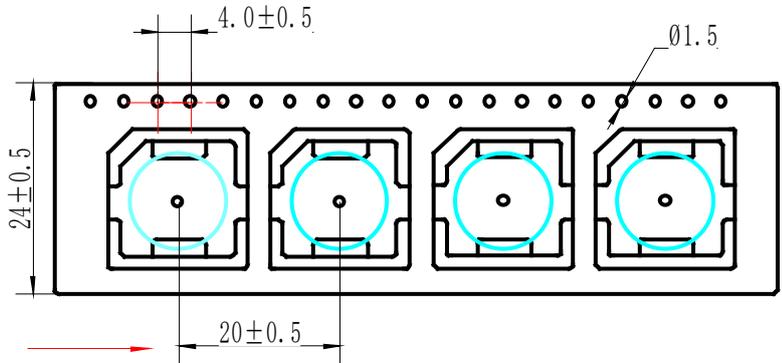
Note: (1) In automated mounting of the SMD sound transducers on PCB, any bending, expanding and pulling forces or shocks against the SMD sound transducers shall be kept minimum to prevent them from electrical failures and mechanical damages of the devices.

(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.

2. Soldering Pattern

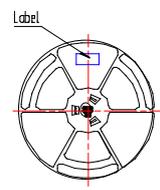
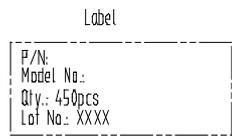
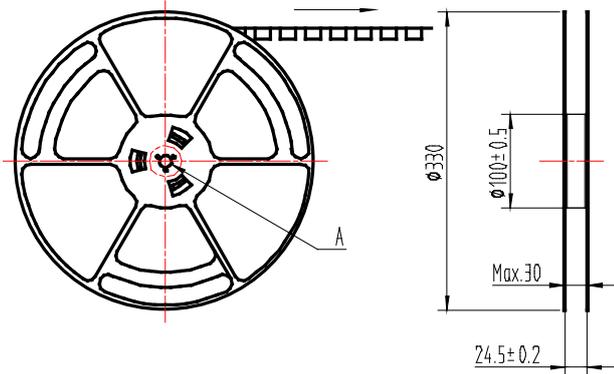


G. PACKING INFORMATION

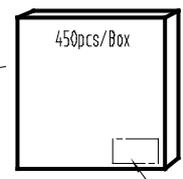


DETAIL: A
SCALE 8:1

Tapping Direction



Inside box



1 Reel/Inside box
(34*34*3.2 CM)

