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	<i>MODEL NAME: LET1033BS-3.6L-2.83-18-R</i>			

SPECIFICATION FOR APPROVAL


SMD ELECTRO-MAGNETIC TRANSDUCER

Model Name	LET1033BS-3.6L-2.83-18-R
Note	

CUSTOMER	Cre-sound
Customer name / Stamp / Sign / Date	DRAWN: 曹佳镇
	CHECKED: 许海
	APPROVED: 宋雪琪

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Alteration History					
Change NO.	Note	Before of changes	After of changes	Reason	Revision

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SMD ELECTRO-MAGNETIC TRANSDUCER

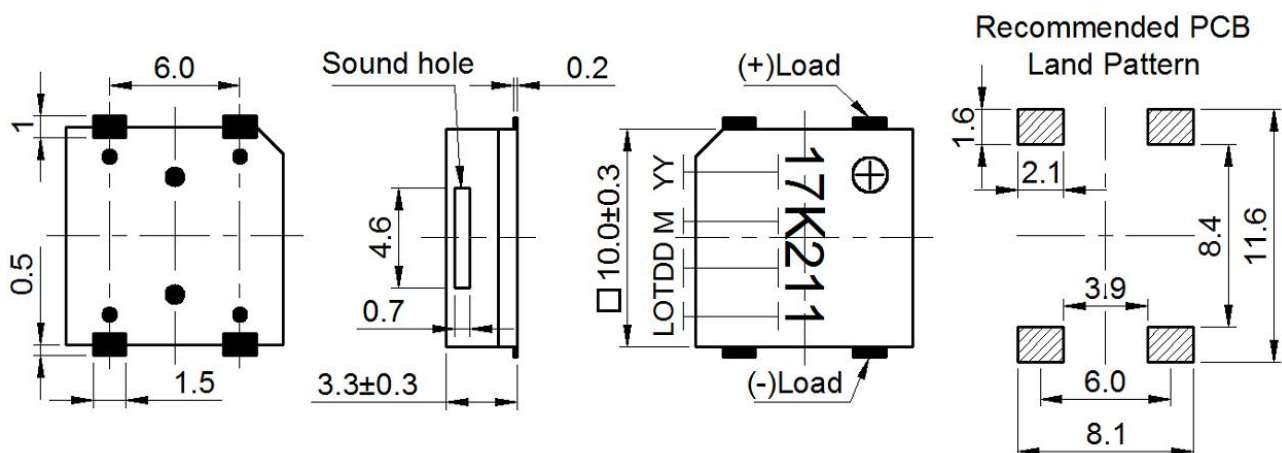
No.	Technical terms	Value
1	Rated Voltage (V)	3.6
2	Operating Voltage (V)	2~5
3	Resonant Frequency (Hz)	2830
4	☆Coil Resistance (Ω)	18±3
5	☆*Sound Output at 10cm (dB)	≥93
6	☆*Current Consumption (mA)	≤100
7	Operating Temperature (°C)	-40~+105
8	Storage Temperature (°C)	-40~+120
9	Weight (g)	0.6
10	Housing Material	LCP
11	RoHS	Yes

*Applying rated voltage (Resonant frequency, 1/2 duty, Square wave)

☆Test Basic State: Temp(20±2°C), Humidity(40~70%RH), Air pressure(860~1060hPa).

DIMENSIONS (UNIT: mm)


Tolerance: ±0.5mm Except Specified



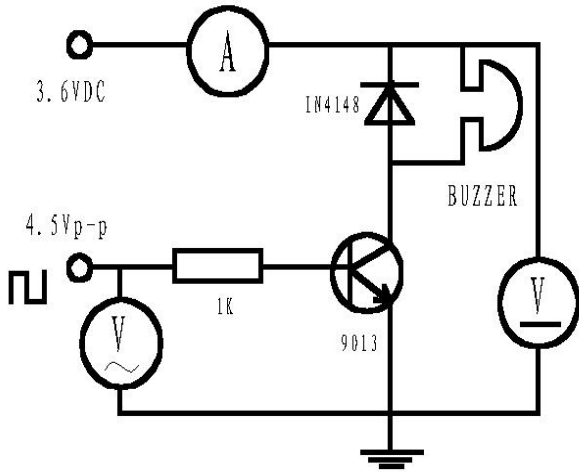
Changzhou Cre-sound Electronics Co., Ltd

Tel: +86-519-86321175; Fax: +86-519-86702455

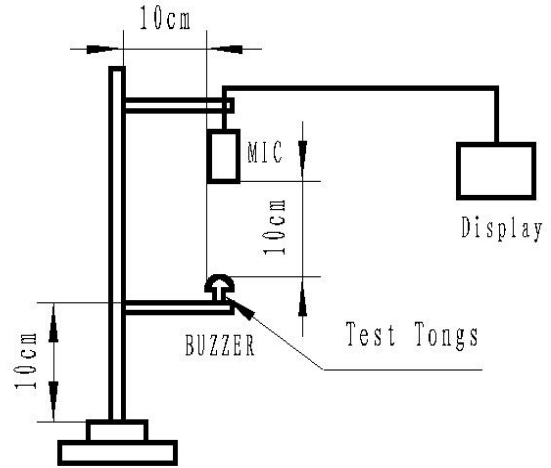
E-mail: sales3@wj-lianhua.com

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TEST METHOD:

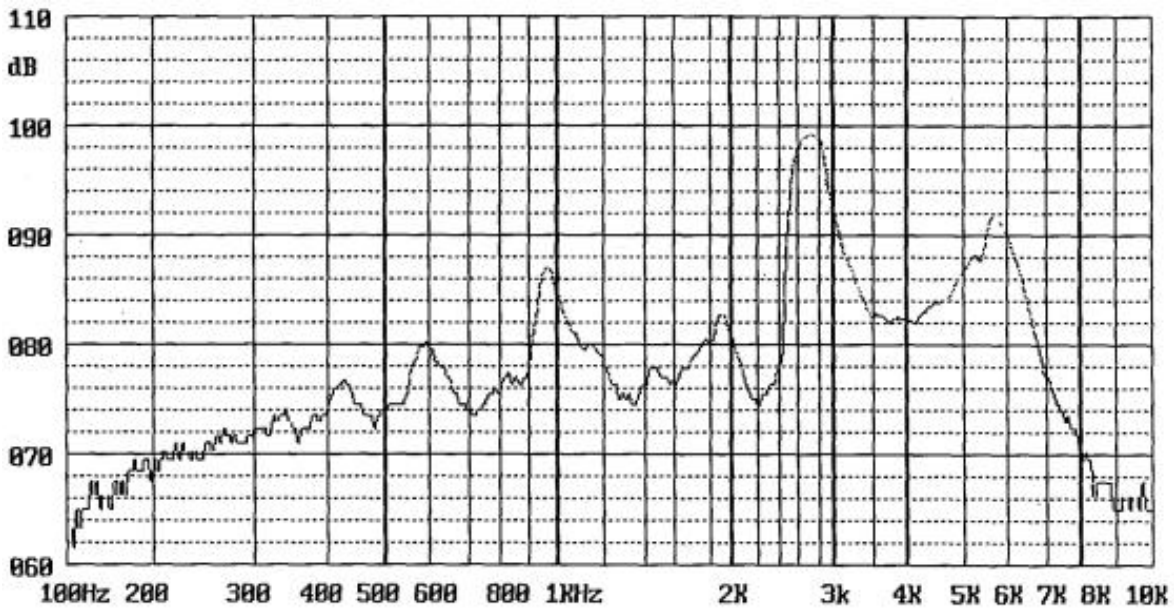



Test Circuit



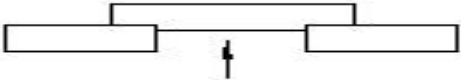
Test Equipis

FREQUENCY RESPONSE:



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RELIABILITY TEST:


NO.	ITEM	TESTING CONDITION	VARIANCE AFTER TEST
1	High temp. storage	The part shall be capable of withstanding a storage temperature is +120°C for 120 hours	After being placed for 2 to 4hrs at room temp, the product shall meet specifications, except the SPL should be in ±10dB compared with initial one.
2	Low temp. storage	The part shall be capable of withstanding a storage temperature is -40°C for 120 hours	
3	Temp. Cycle	Total 5 cycles, 1 cycle consisting of -40±2°C, 30 minutes 20±5°C 15 minutes 120±2°C, 30 minutes 20±5°C 15 minutes	
4	Humidity Test	40±2°C, 90~95% RH, 120 hours	
5	Vibration Test	To-and-fro. sweep time (from 10 to 55 Hz and then 55 to 10Hz) under single amplitude of 1.52mm is 1 minute. The vibration test shall consist of 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours.	The SPL shall meet specification.
6	Shock	Sounder shall be measured after being applied shock (980m/s ²) for each three mutually perpendicular directions to each of 3 times by half sine wave.	After the test, the product shall meet specifications, except the SPL should be in ±10dB compared with initial one.
7	Drop Test	The part only shall be dropped from the height of 70cm onto 10mm thick wooden board each 3 times in 3 axial directions(x,y&z) (a total of 9 times).	
8	Lead pull	The part shall be pushed with a force of 9.8N for 10±1 seconds behind the part. 	After the test part shall meet specifications without any degradation in appearance and performance.
9	Recommended temp. Profile for Reflow Oven	Shown in Fig.1	The SPL shall meet specification.

Warranty: For a period of one year from date of manufacture under normal operations.

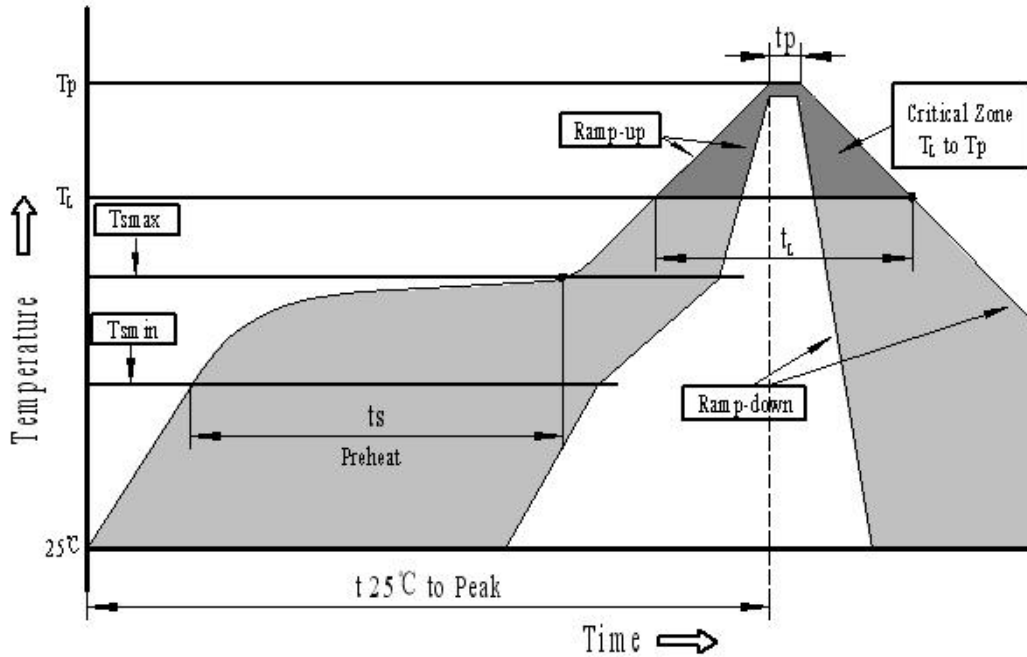
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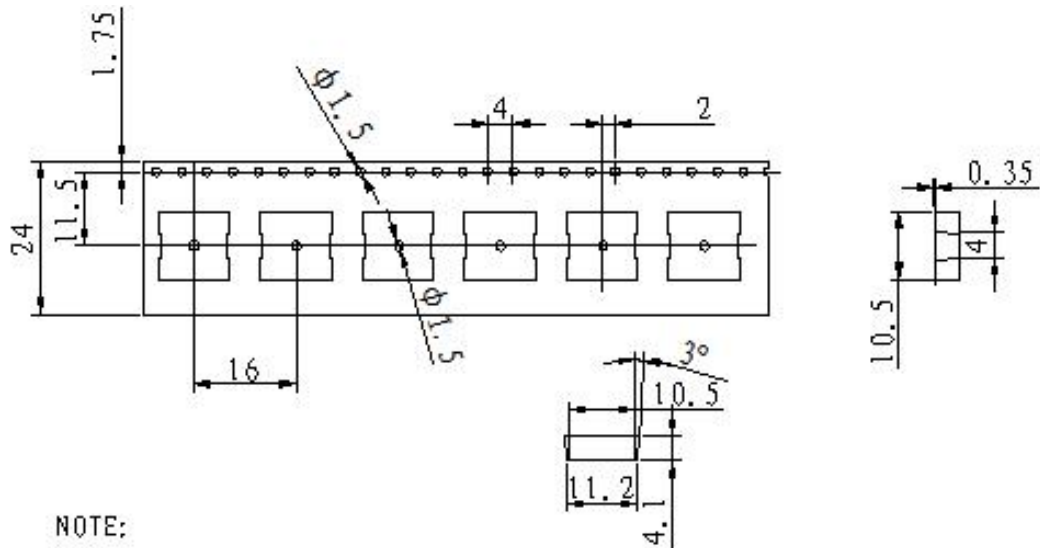
Recommended Temp. Profile for Reflow Oven (Fig.1)



Profile Feature	Pb-Free Assembly
Average ramp-up rate(T_L to T_p)	3°C/second max.
Preheat	
-Temperature Min.(T_{Smin})	150°C
-Temperature Min.(T_{Smax})	200°C
-Temperature Min.(t_s)	60~180 seconds
T_{Smax} to T_L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
- Temperature(T_L)	217°C
-Time(t_L)	60~150 seconds
Peak temperature(T_p)	245°C+0/-5°C
Time within 5°C of actual Peak temperature (t_p)	6 seconds max.
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

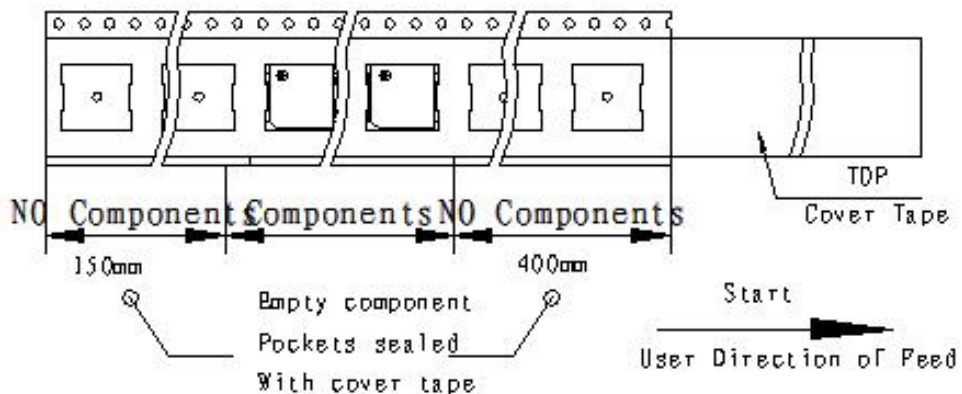
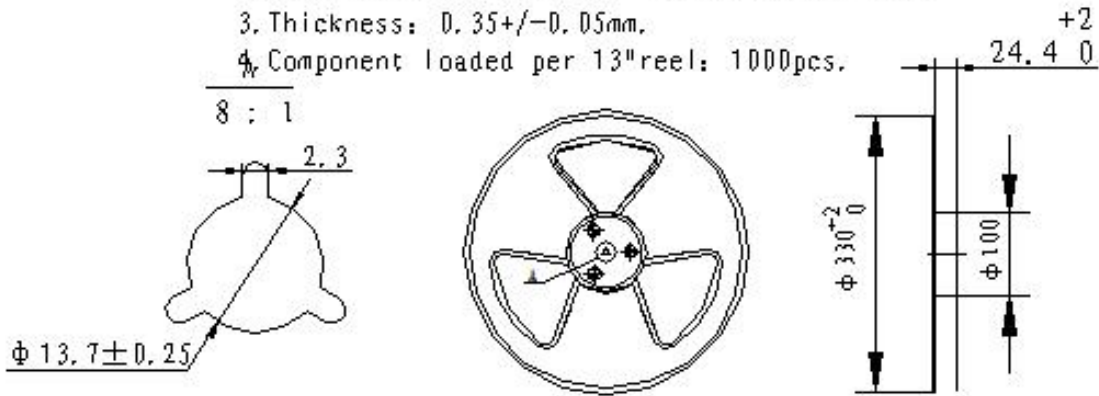
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PACKING:



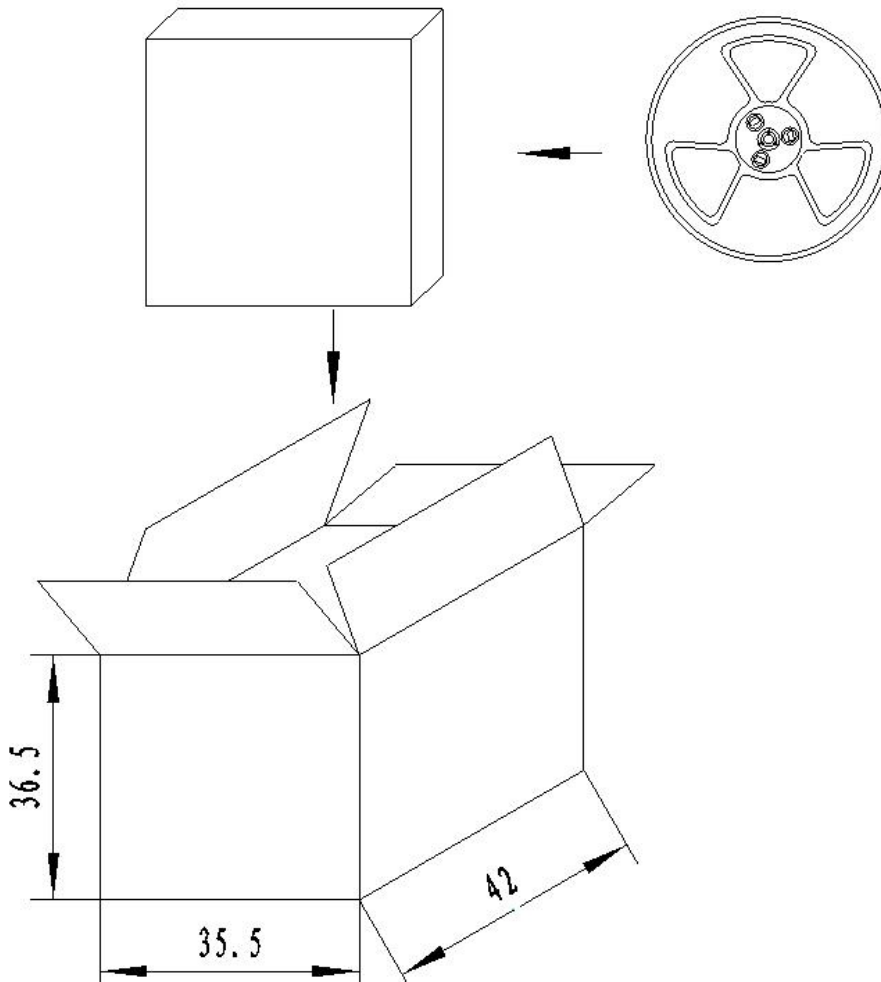
NOTE:

1. 10 sprocket hole pitch cumulative tolerance $\pm 0.2\text{mm}$.
2. All dimensions meet ETA-481-D requirements.
3. Thickness: $0.35 \pm 0.05\text{mm}$.
4. Component loaded per 13" reel: 1000 pcs.



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PACKING:



NOTES:

1. 1000PCS per box
2. Total 10 boxes per carton
3. Total 10000 PCS carton