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	<i>MODEL NAME: LET9045ES-03L-2.7-16-R</i>			

SPECIFICATION FOR APPROVAL


SMD ELECTRO-MAGNETIC TRANSDUCER

Model Name	LET9045ES-03L-2.7-16-R
Note	

CUSTOMER	Cre-sound
	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

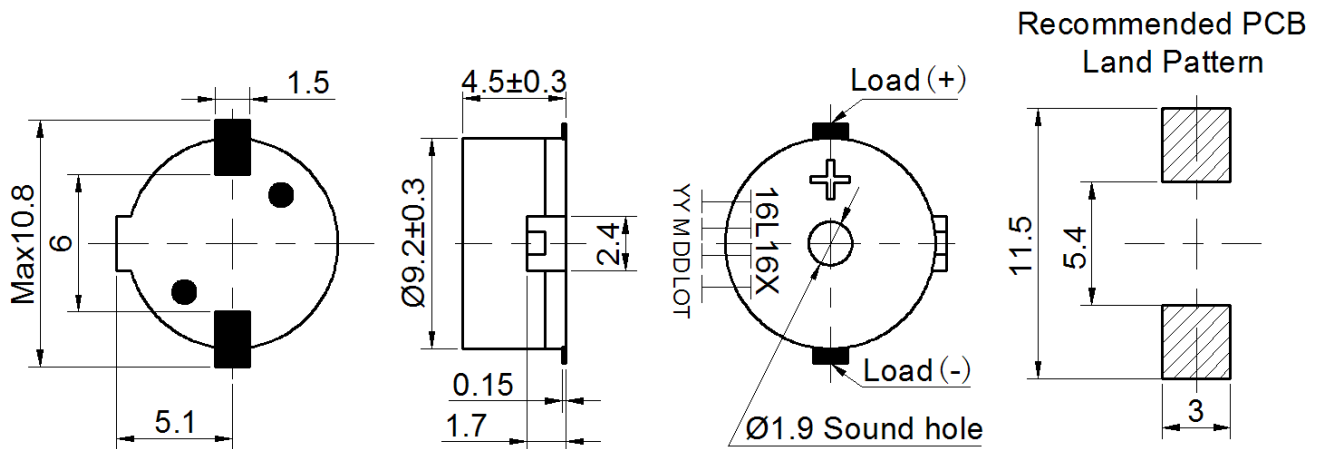
NO.	Model No.	LET9045ES-03L-2.7-16-R
1	Rated Voltage (V)	3
2	Operating Voltage (V)	2~5
3	☆Coil Resistance (Ω)	16 ± 3
4	Resonant Frequency (Hz)	2700
5	☆*Sound Output at 10cm (dB)	≥ 95
6	☆*Current Consumption (mA)	≤ 80
7	Operating Temperature ($^{\circ}\text{C}$)	-40~+105
8	Storage Temperature ($^{\circ}\text{C}$)	-40~+120
9	Weight (g)	0.4
10	Housing Material	LCP
11	RoHS	Yes

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

☆Test Basic State: Temp($20 \pm 2^{\circ}\text{C}$), Humidity(40~70%RH), Air pressure(860~1060hPa).

DIMENSIONS (UNIT: mm)


Tolerance: $\pm 0.5\text{mm}$ Except Specified



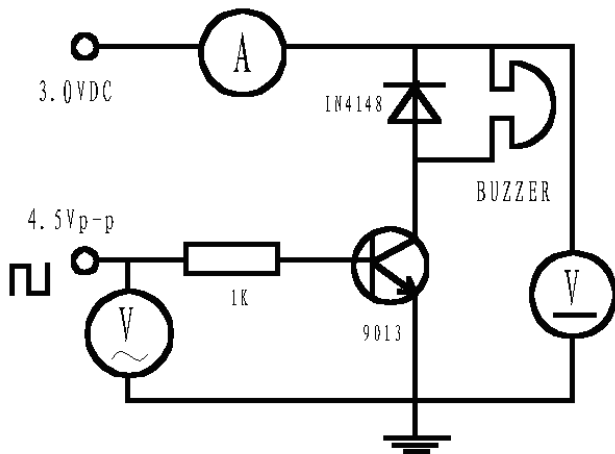
Changzhou Cre-sound Electronics Co., Ltd

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

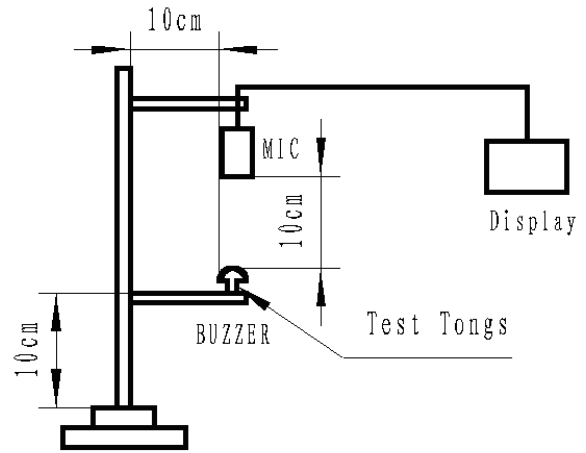
E-mail: connie@wj-lianhua.com

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TEST METHOD:

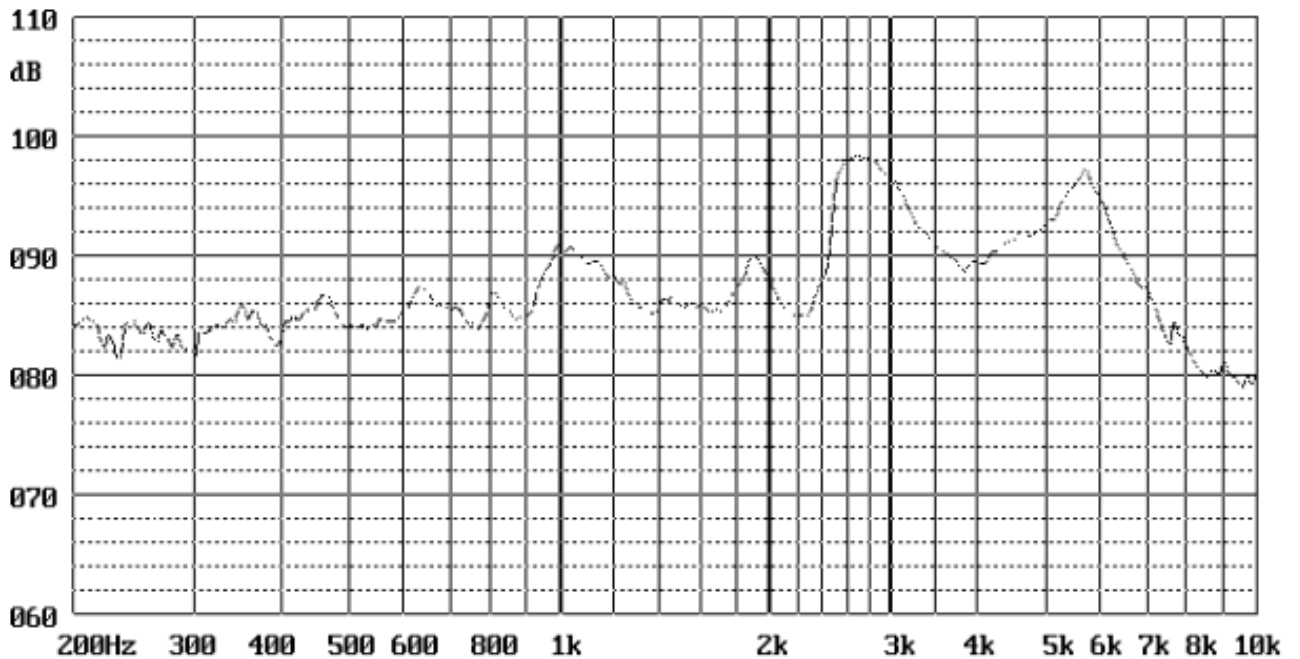


Test Circuit



Test Equipis


FREQUENCY RESPONSE:



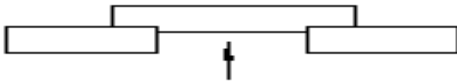
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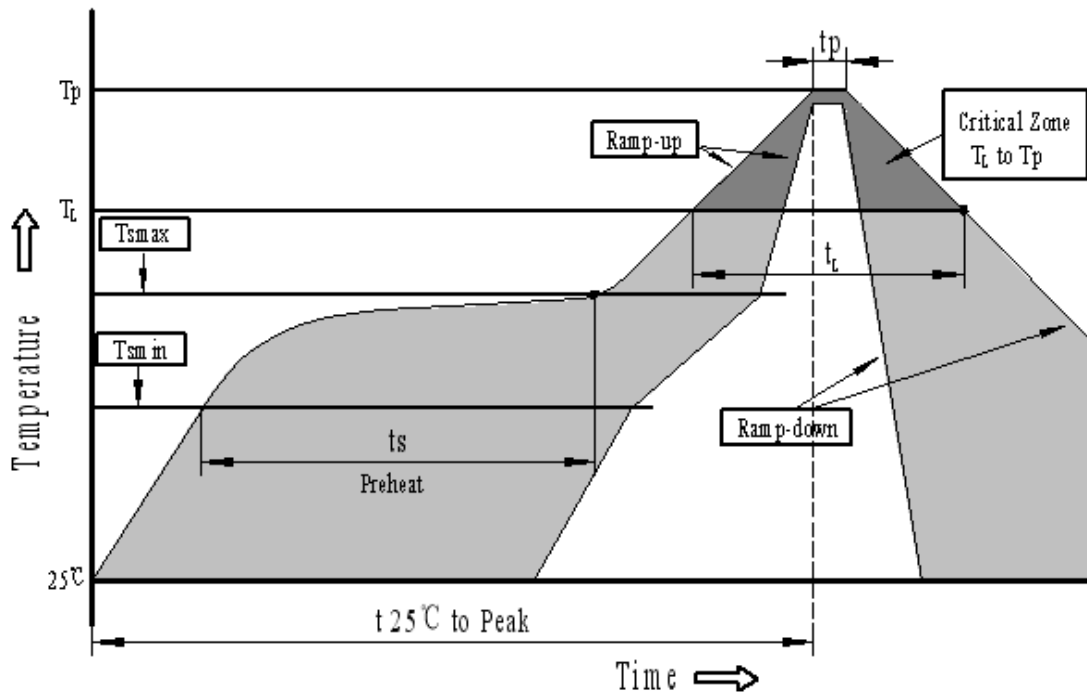
RELIABILITY TEST:

NO.	ITEM	TESTING CONDITION	VARIANCE AFTER TEST
1	High temp. storage life	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 life	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).	After the test part shall meet specifications without any degradation in appearance and performance.
8	Lead pull	The part shall be pushed with a force of 9.8N for 10±1 seconds behind the part. 	The SPL shall meet specification.
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)	250°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.

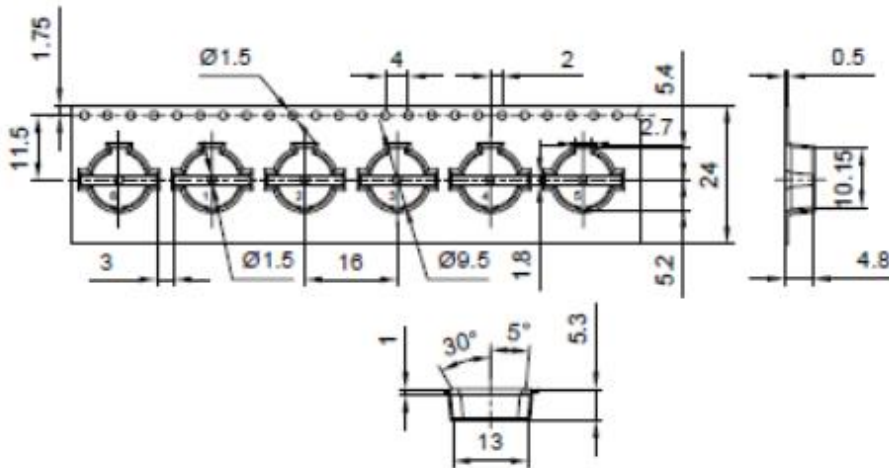
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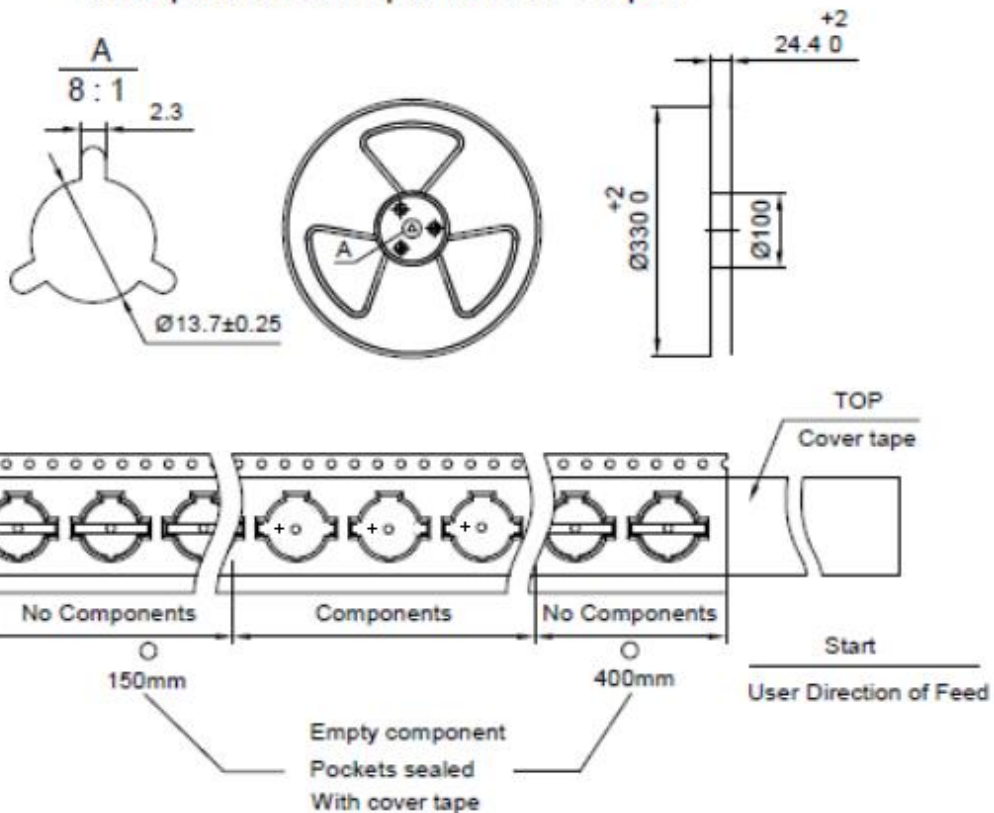
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PACKING:



NOTE:


1. 10 sprocket hole pitch cumulative tolerance $\pm 0.20\text{mm}$.
2. All dimensions meet EIA-481-D requirements.
3. Thickness: $0.5 \pm 0.05\text{mm}$.
4. Component loaded per 13" reel: 800 pcs.



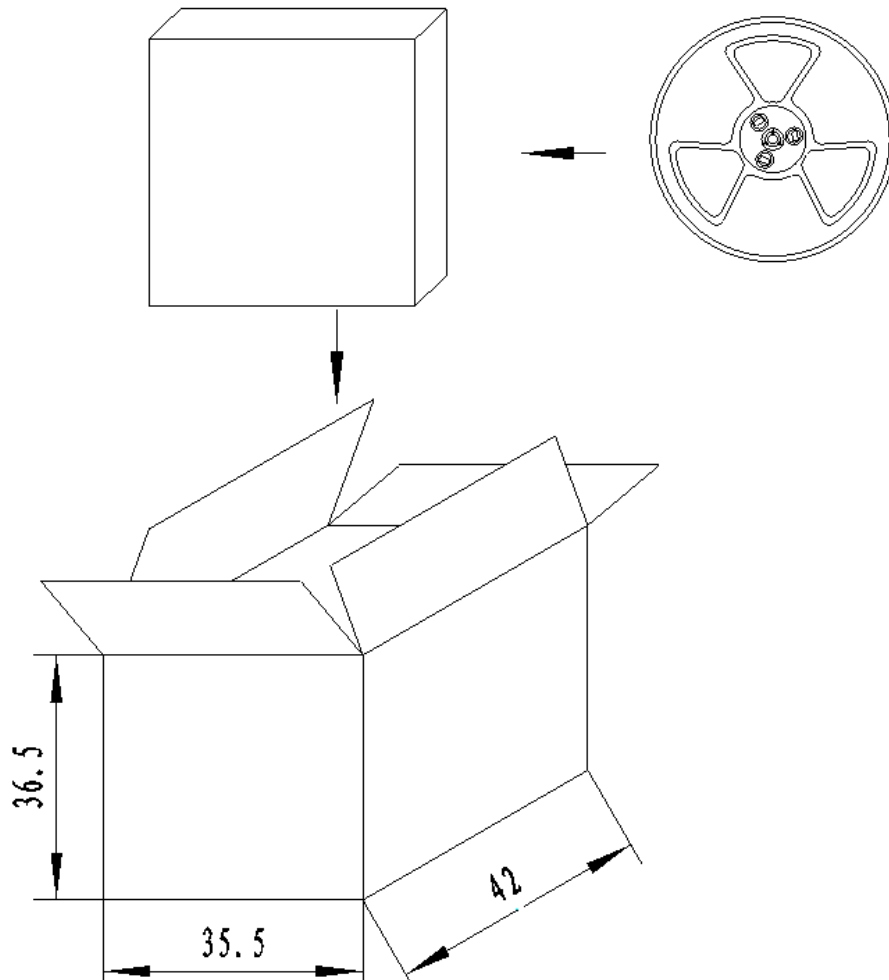
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PACKING:



NOTES:

- 1.800PCS per box
- 2.Total 10 boxes per carton
- 3.Total 8000 PCS carton

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