

	DATE	29-04-2020	<b>SPECIFICATION</b>	Changzhou Cre-sound Electronics Co., Ltd
	PAGE	1/9		www.cre-soundbuzzer.com
	Version	A/1		www.wj-lianhua.com
	<i>MODEL NAME: LET1370FS-05L-2.4-47-R</i>			

## SPECIFICATION FOR APPROVAL


### SMD ELECTRO-MAGNETIC TRANSDUCER

Model Name	LET1370FS-05L-2.4-47-R
Note	

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

	DATE	29-04-2020	<b>SPECIFICATION</b>	Changzhou Cre-sound Electronics Co., Ltd	
	PAGE	2/9		www.cre-soundbuzzer.com	
	Version	A/1		www.wj-lianhua.com	
	<b>MODEL NAME: LET1370FS-05L-2.4-47-R</b>				

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

	DATE	29-04-2020	<b>SPECIFICATION</b>	Changzhou Cre-sound Electronics Co., Ltd
	PAGE	3/9		www.cre-soundbuzzer.com
	Version	A/1		www.wj-lianhua.com
<b>MODEL NAME: LET1370FS-05L-2.4-47-R</b>				

## SMD ELECTRO-MAGNETIC TRANSDUCER

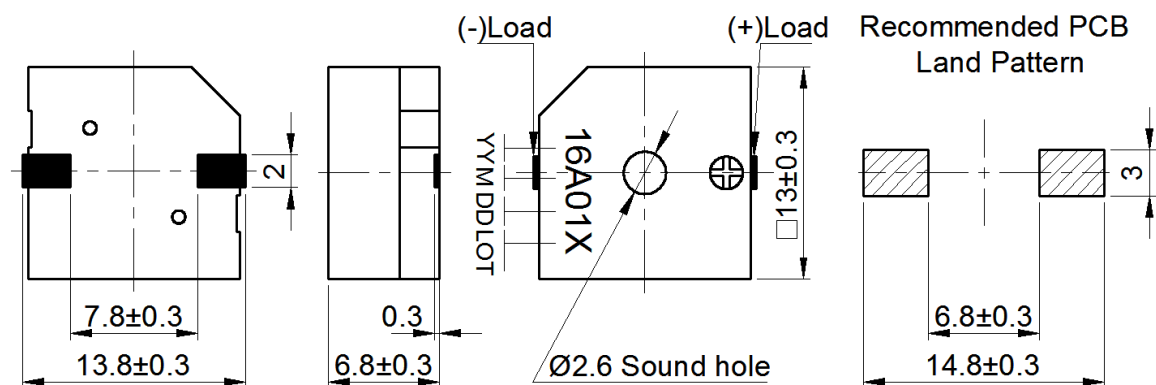
No.	Technical terms	Value
1	Rated Voltage (V)	5
2	Operating Voltage (V)	3~7
3	☆Coil Resistance ( $\Omega$ )	$47 \pm 6$
4	Resonant Frequency (Hz)	2400
5	☆*Sound Output at 10cm (dB)	$\geq 90$
6	☆*Current Consumption (mA)	$\leq 60$
7	Operating Temperature ( $^{\circ}\text{C}$ )	-40~+105
8	Storage Temperature ( $^{\circ}\text{C}$ )	-40~+120
9	Weight (g)	2
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



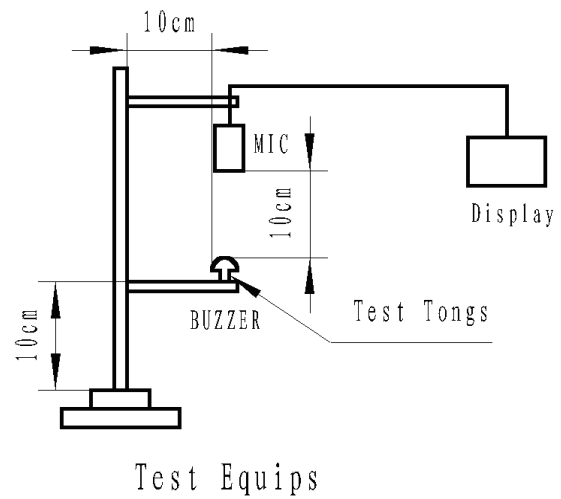
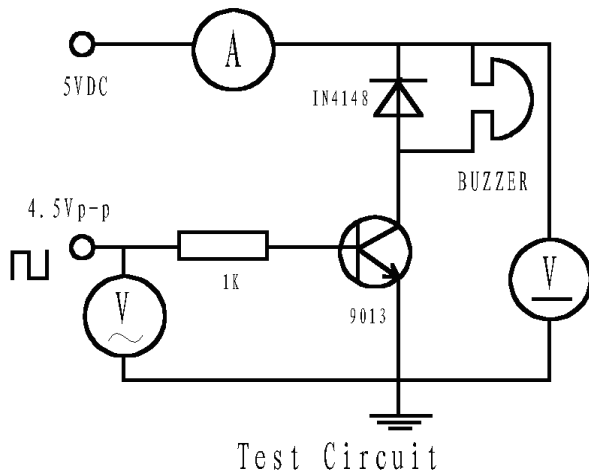
**Changzhou Cre-sound Electronics Co., Ltd**

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

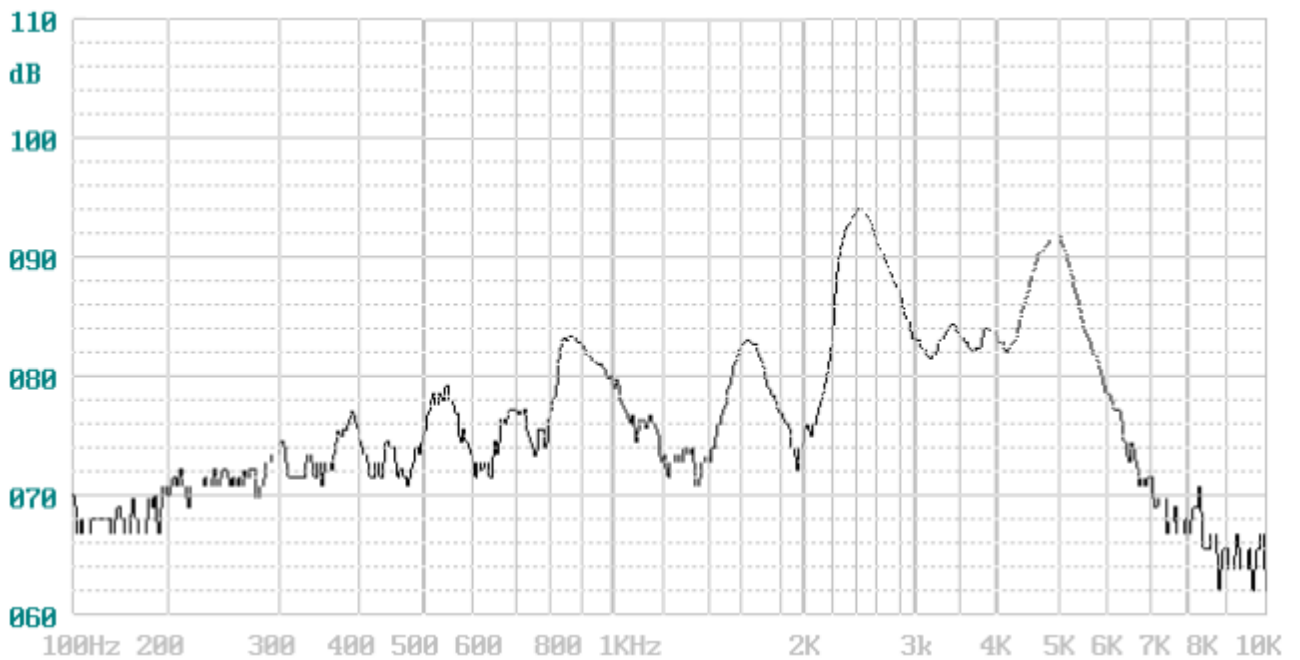
E-mail: [connie@wj-lianhua.com](mailto:connie@wj-lianhua.com)


	DATE	29-04-2020	<b>SPECIFICATION</b>	Changzhou Cre-sound Electronics Co., Ltd
	PAGE	4/9		www.cre-soundbuzzer.com
	Version	A/1		www.wj-lianhua.com
<i>MODEL NAME: LET1370FS-05L-2.4-47-R</i>				

**TEST METHOD:**

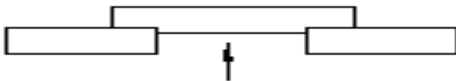


**FREQUENCY RESPONSE:**

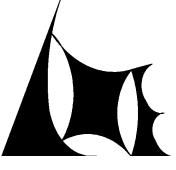


	DATE	29-04-2020	<b>SPECIFICATION</b>	Changzhou Cre-sound Electronics Co., Ltd
	PAGE	5/9		www.cre-soundbuzzer.com
	Version	A/1		www.wj-lianhua.com
	<b>MODEL NAME: LET1370FS-05L-2.4-47-R</b>			

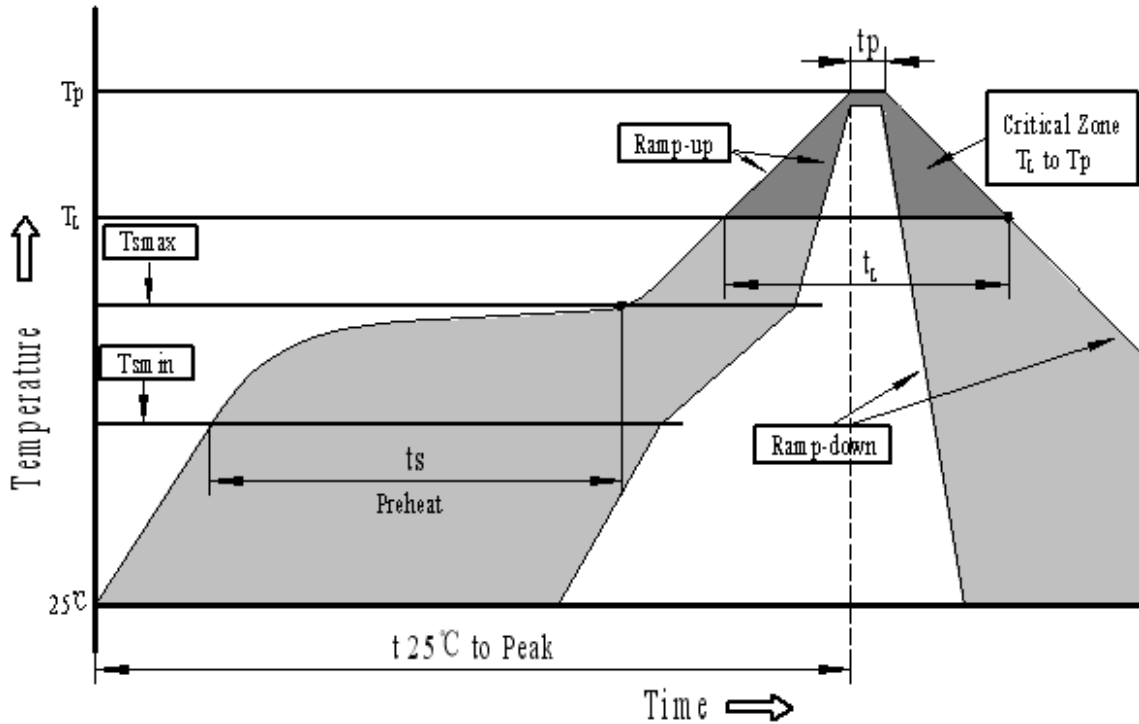
### RELIABILITY TEST:

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 <sup>2</sup> ) 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.

	DATE	29-04-2020	<b>SPECIFICATION</b>	Changzhou Cre-sound Electronics Co., Ltd
	PAGE	6/9		www.cre-soundbuzzer.com
	Version	A/1		www.wj-lianhua.com
<b>MODEL NAME: LET1370FS-05L-2.4-47-R</b>				

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

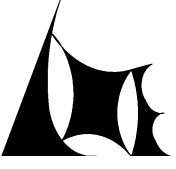


Profile Feature	Pb-Free Assembly
Average ramp-up rate( $T_L$ to $T_p$ )	3°C/second max.
Preheat	
-Temperature Min.( $T_{Smin}$ )	150°C
-Temperature Min.( $T_{Smax}$ )	200°C
-Temperature Min.( $t_s$ )	60~180 seconds
$T_{Smax}$ to $T_L$	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
- Temperature( $T_L$ )	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.

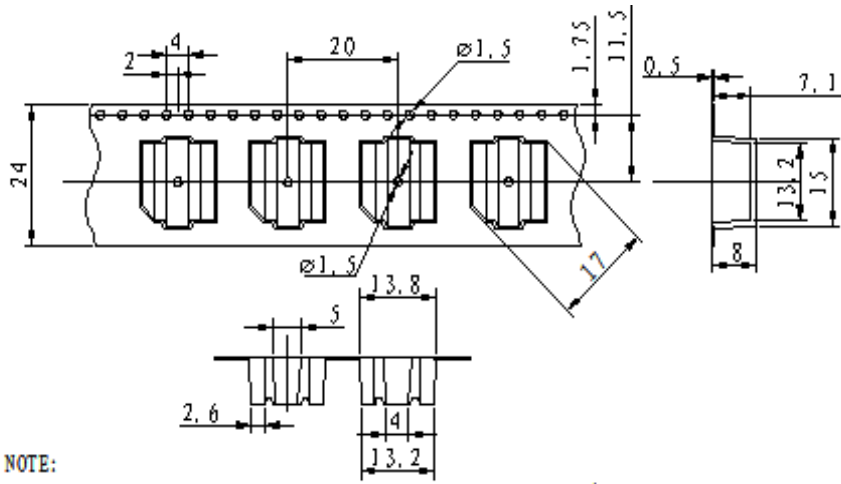
**Changzhou Cre-sound Electronics Co., Ltd**

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

E-mail:connie@wj-lianhua.com

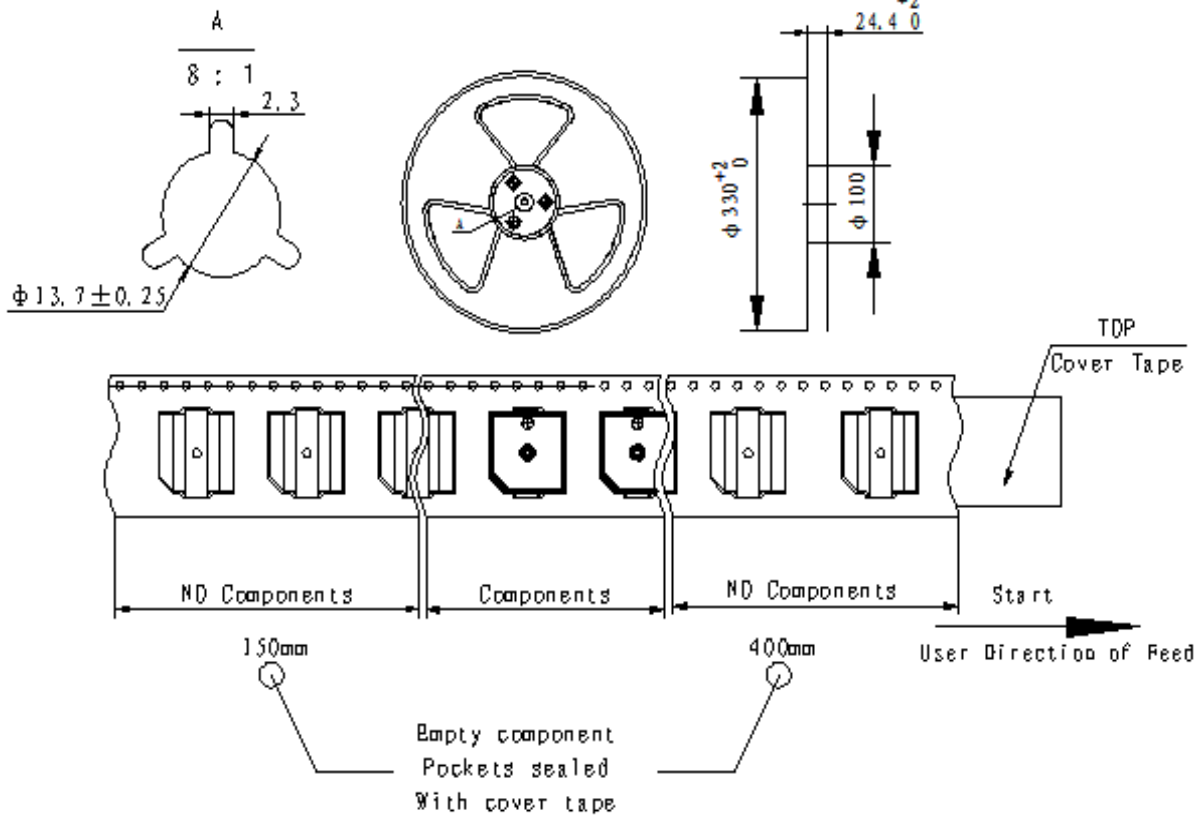
	DATE	29-04-2020	<b>SPECIFICATION</b>	Changzhou Cre-sound Electronics Co., Ltd
	PAGE	7/9		www.cre-soundbuzzer.com
	Version	A/1		www.wj-lianhua.com
<b>MODEL NAME: LET1370FS-05L-2.4-47-R</b>				

**PACKING:**

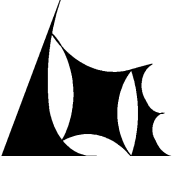


**NOTE:**

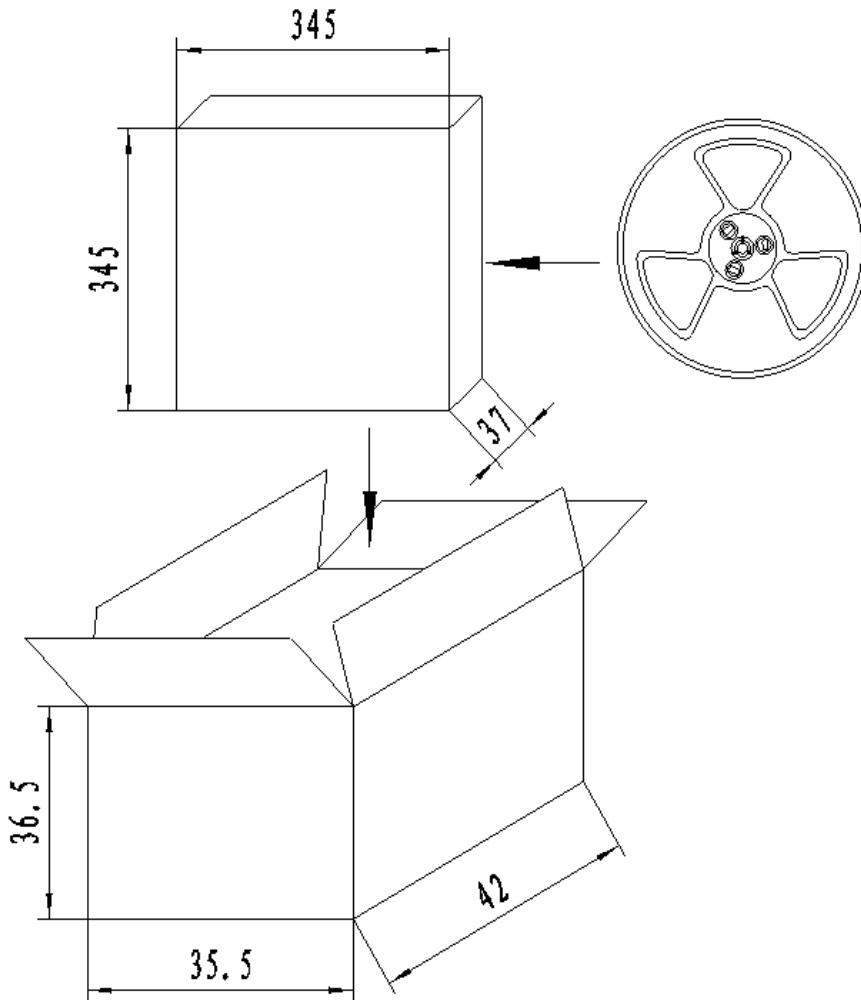
1. 10 sprocket hole pitch cumulative tolerance +/-0.2mm.
2. All dimensions meet EIA-481-D requirements.
3. Thickness: 0.5 +/- 0.05mm.
4. Component loaded per 13" reel: 400pcs.



**Changzhou Cre-sound Electronics Co., Ltd**  
 Tel: +86-519-86321175; Fax: +86-519-86702455  
 E-mail: connie@wj-lianhua.com

	DATE	29-04-2020	<b>SPECIFICATION</b>	Changzhou Cre-sound Electronics Co., Ltd
	PAGE	8/9		www.cre-soundbuzzer.com
	Version	A/1		www.wj-lianhua.com
<i>MODEL NAME: LET1370FS-05L-2.4-47-R</i>				

**PACKING:**



**NOTES:**

- 1.400 PCS per box
- 2.Total 10 boxes per carton
- 3.Total 4000 PCS carton

**Changzhou Cre-sound Electronics Co., Ltd**  
 Tel: +86-519-86321175; Fax: +86-519-86702455  
 E-mail:connie@wj-lianhua.com