SPECIFICATION FOR APPROVAL
SMD ELECTRO-MAGNETIC TRANSDUCER

Model Name	LET5020CS-03L-4.0-12-R
Note	

CUSTOMER	**Cre-sound**
	DRAWN Xu Hai
	CHECKED Li Xiaofen
	APPROVED Rose Song

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LET5020CS-03L-4.0-12-R
SMD ELECTRO-MAGNETIC TRANSDUCER
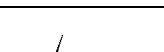
1	Model No.	LET5020CS-03L-4.0-12-R
2	Rated Voltage (V)	3
3	Operating Voltage (V)	2　5
4	Resonant Frequency (Hz)	4000
5	Coil Resistance (　)	12± 2
6	*Sound Output at 10cm (dB)	78
7	*Current Consumption (mA)	100
8	Operating Temperature (　)	-20　+70
9	Storage Temperature (　)	-30　+80
10	Weight (g)	0.3
11	Case material and colour	LCP / Black

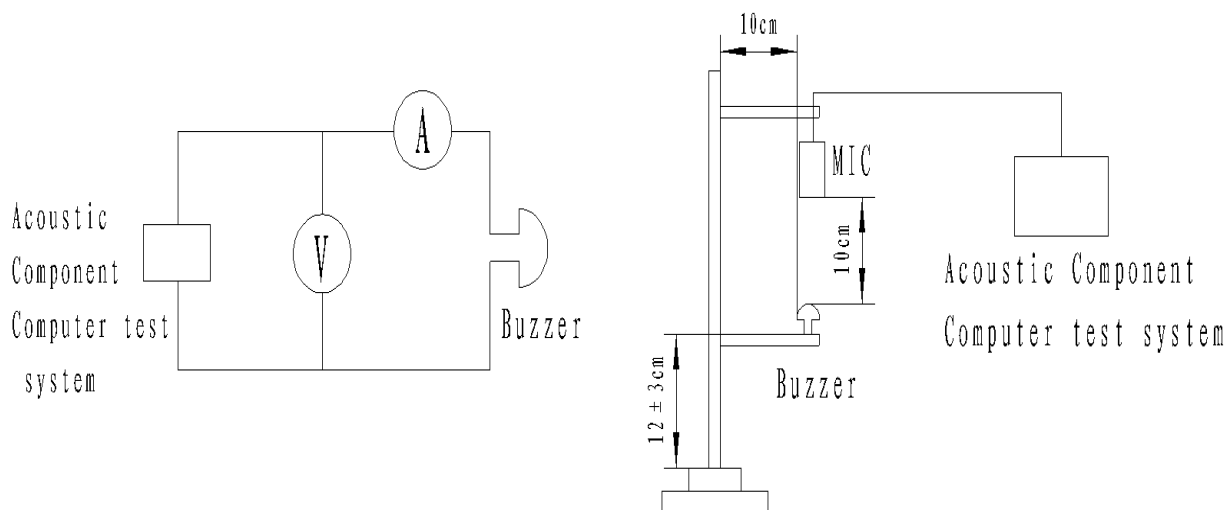*Applying rated voltage (Resonant frequency, 1/2 duty, Square wave)

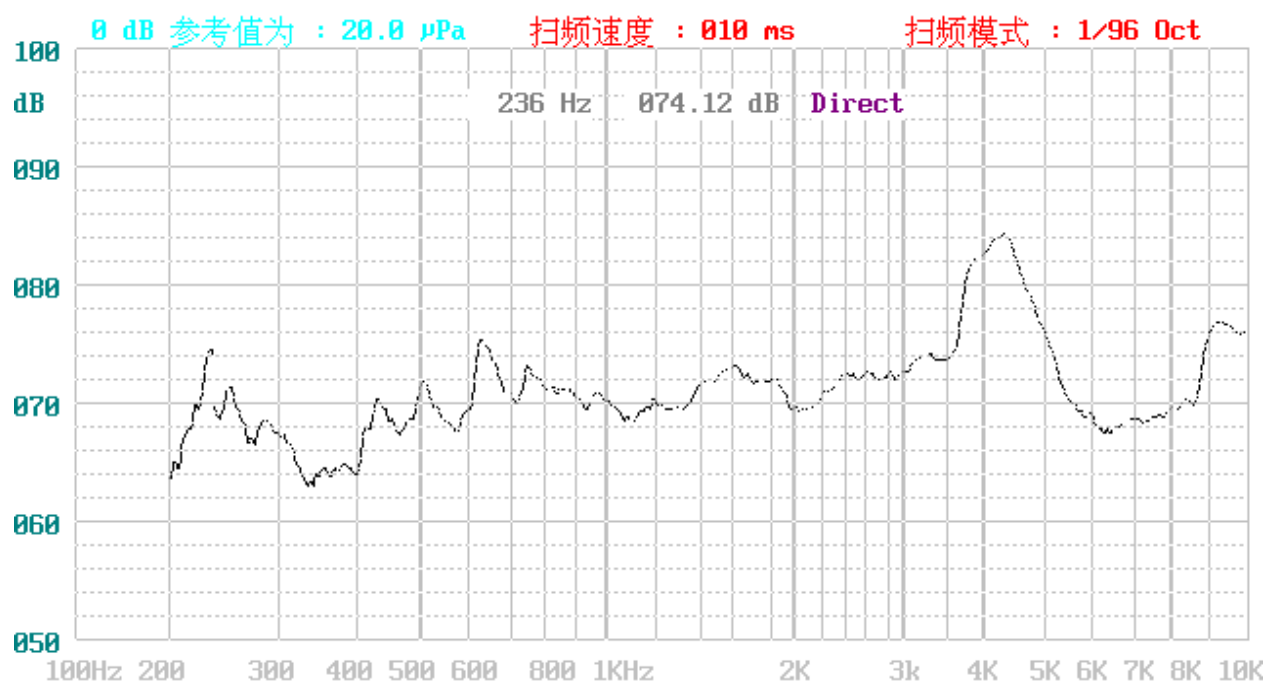## DIMENSIONS (UNIT: mm)

Tolerance: ± 0.5mm Except Specified

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TEST METHOD:
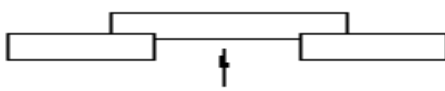
FREQUENCY RESPONSE:

Changzhou Wujin Lianhua Electronics Co., Ltd
Tel: +86-519-86323596; Fax: +86-519-86702455
E-mail: Louise@wj-lianhua.com

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RELIABLY TEST:

NO.	ITEM	TESTING CONDITION	VARIANCE AFTER TEST
1	High temp. storage life	The part shall be capable of withstanding a storage temperature is +80 for 120 hours	After the test the part shall meet specifications without any degradation in appearance and performance except SPL shall be initial value± 10dB or more.
2	Low temp. storage life	The part shall be capable of withstanding a storage temperature is -30 for 120 hours	
3	Temp. Cycle	Total 5 cycles, 1 cycle consisting of -30± 2 , 30 minutes 20± 5 15 minutes 80± 2 , 30 minutes 20± 5 15 minutes	
4	Humidity Test	40± 2 , 90 95% RH, 120 hours	
5	Vibration Test	The part shall be subjected to a vibration cycle is 10Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm(9.3g). The vibration test shall consist of 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours.	
6	Shock	Sounder shall be measured after being applied shock (980m/s²) for each three mutually perpendicular directions to each of 3 times by half sine wave.	
7	Drop Test	Dropped naturally from 700mm height onto the surface of 10mm thick wooden board. 2 directions-upper and side of the part are to be applied.	
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	

Warranty:For a period of one year from date of manufcture under normal operations.
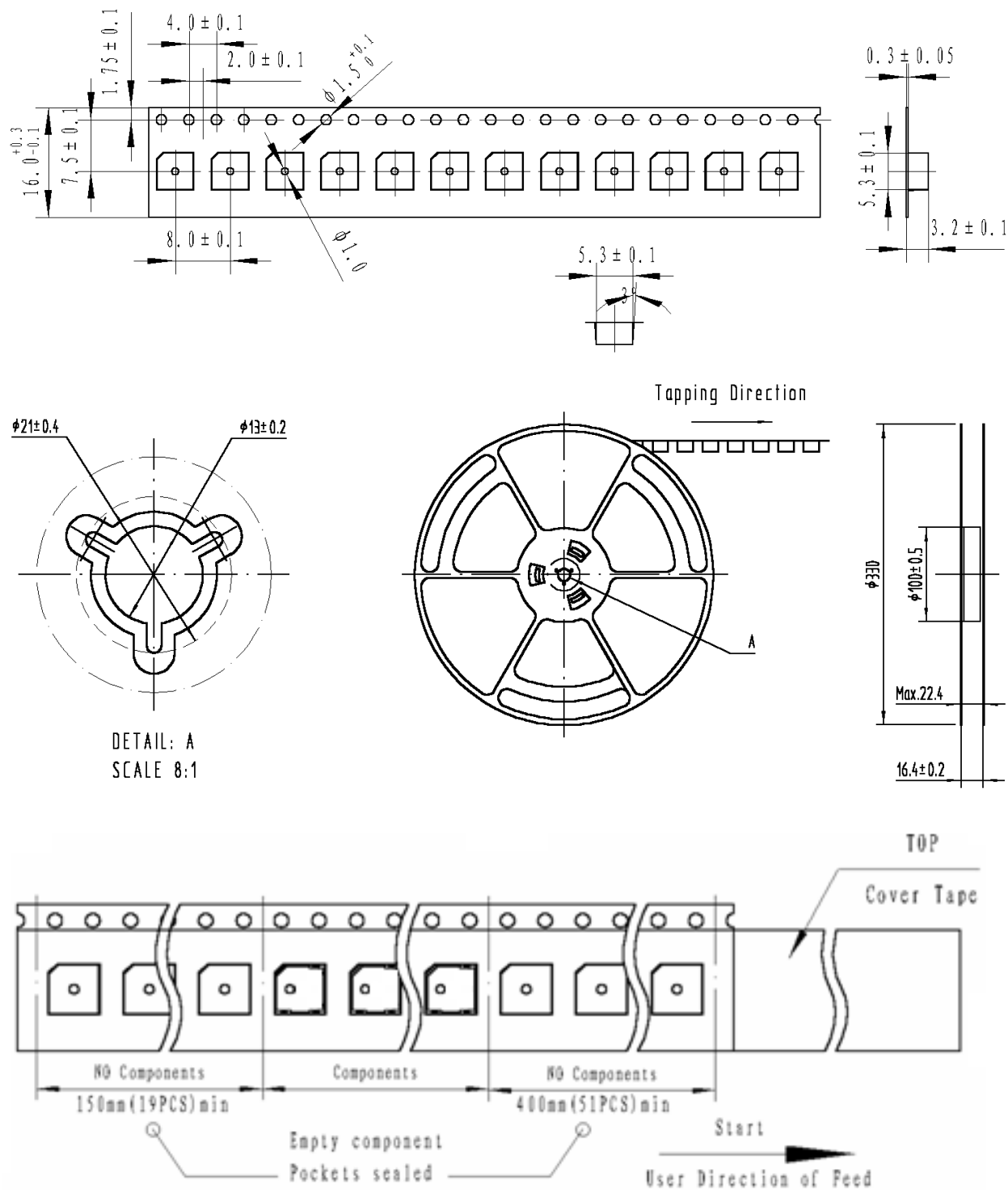
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Recommended Temp. Profile for Reflow Oven (Fig.1)
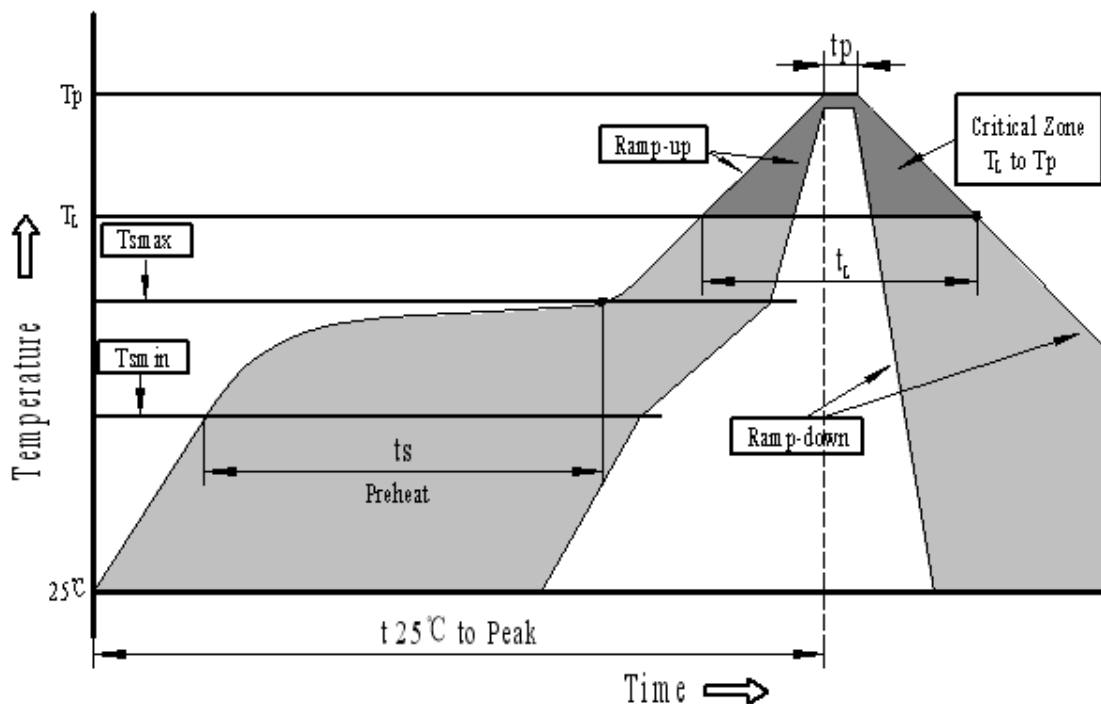
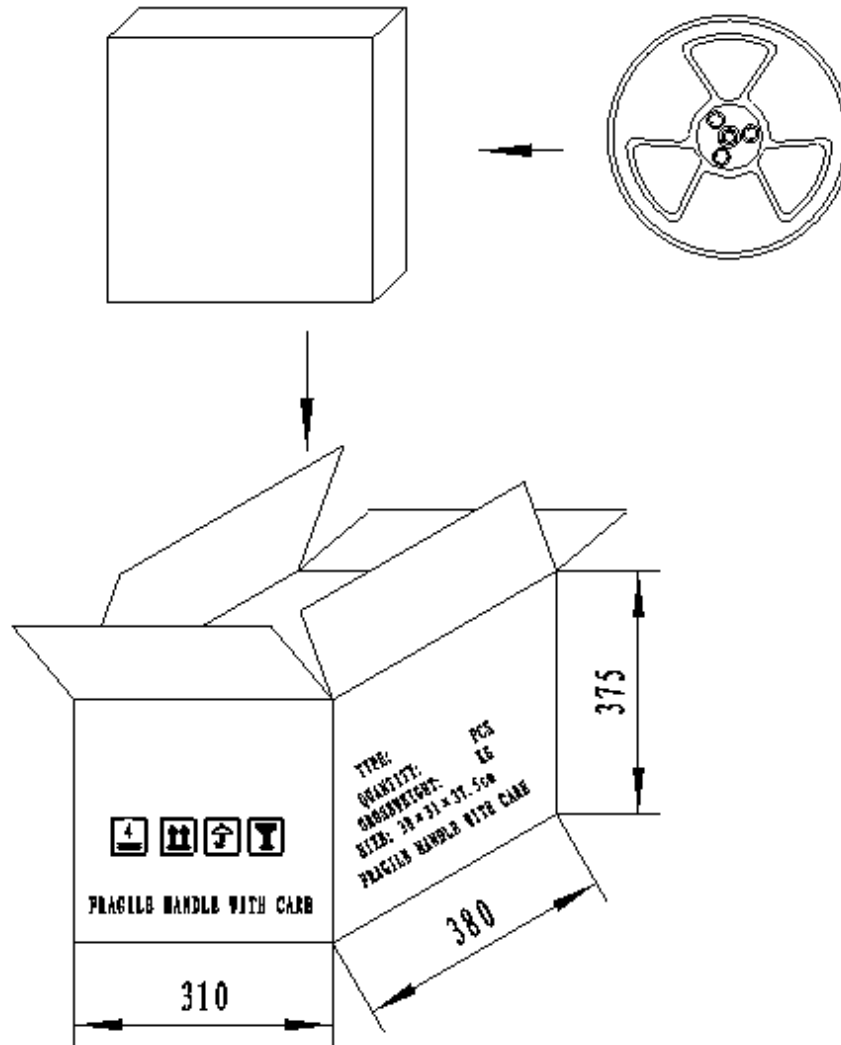| Profile Feature	Pb-Free Assembly
Average ramp-up rate(T_L to Tp)	3 /second max.
Preheat	
-Temperature Min.(Ts_{min})	150
-Temperature Min.(Ts_{max})	200
-Temperature Min.(ts)	60 180 seconds
Ts_{max} to T_L	
-Ramp-up Rate	3 /second max.
Time maintained above:	
- Temperature(T_L)	217
-Time(T_L)	60 150 seconds
Peak temperature(Tp)	250 +0/-5
Time within 5 of actual Peak temperature (tp)	6 seconds max.
Ramp-down Rate	6 /second max.
Time 25 to Peak Temperature	8 minutes max.

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PACKING:

DETAIL: A
SCALE 8:1

Tapping Direction

TOP

Cover Tape

NG Components
150mm(19PCS)min

Components

NG Components
400mm(51PCS)min

Empty component
Pockets sealed

Start

User Direction of Feed

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PACKING:

NOTES:

1.2500 PCS per box

2. 10 boxes / carton 25000 PCS

3. 4 boxes / carton 10000 PCS