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	<i>MODEL NAME: LPT1030S-HL-05-5.2-12-R</i>			

## SPECIFICATION FOR APPROVAL PIEZO TRANSDUCER

Model Name	LPT1030S-HL-05-5.2-12-R
Note	

Product Photo	Cre-Sound
Customer name / Stamp / Sign / Date	DRAWING: 蒋志凯
	CHECKED: 李小芬
	APPROVED: 宋雪琪

**ChangZhou Cre-Sound Electronics Co.,Ltd.**  
**Tel: +86-519-86321175; Fax: +86-519-86702455**  
**E-mail:Connie@wj-lianhua.com**

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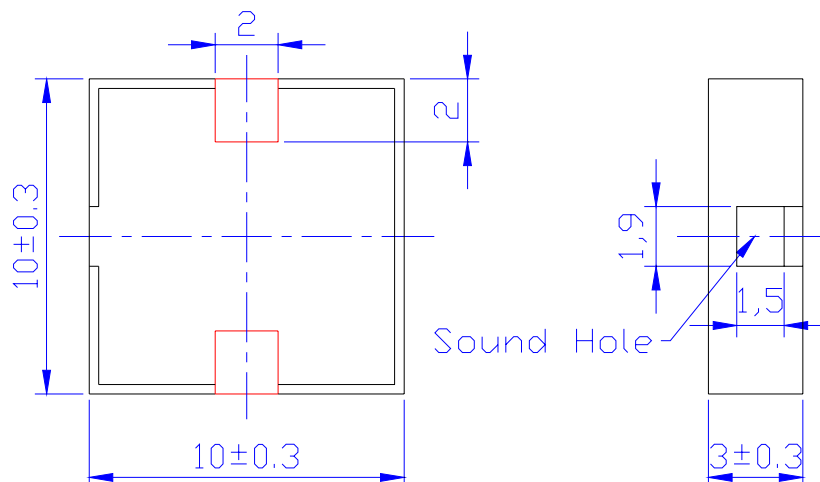
## LPT1030S-HL-05-5.2-12-R PIEZO TRANSDUCER

1	Part Number	LPT1030S-HL-05-5.2-12-R
2	Rated Voltage (Vp-p)	5
3	Operating Voltage (Vp-p)	1~30
4	*Current Consumption (mA)	≤3
5	Capacitance at120Hz (PF)	12000±30%
6	*Sound Output at 10cm (dB)	≥75
7	Resonant Frequency (Hz)	5200±500
8	Operating Temperature (°C)	-20~+70
9	Storage Temperature (°C)	-40~+85
10	Weight (g)	0.3
11	Housing Material	LCP
12	RoHS	Yes


\*Applying rated voltage (Resonant frequency, Square wave)

### DIMENSIONS (UNIT: mm)

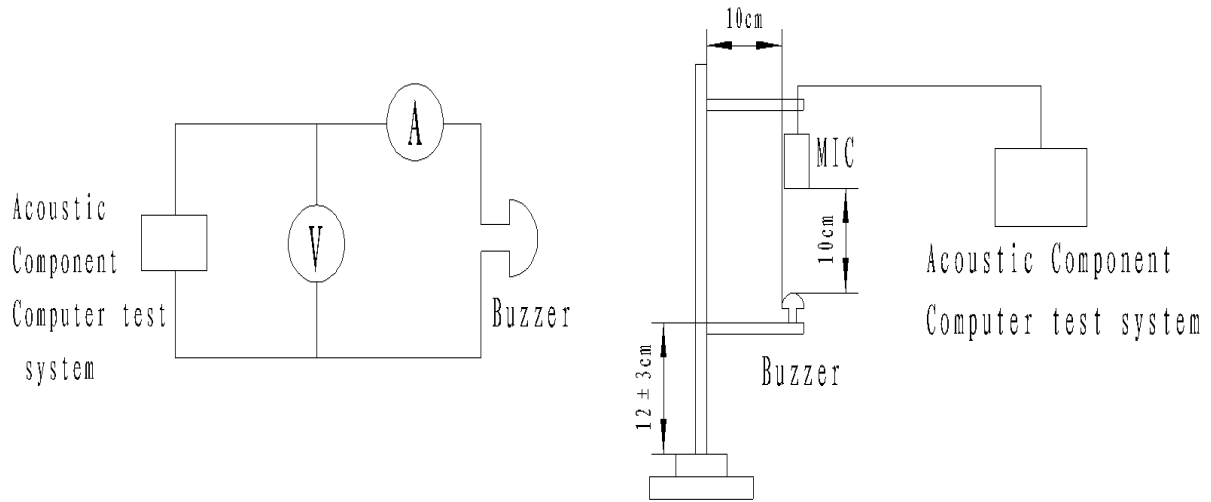
Tolerance: ±0.5mm Except Specified



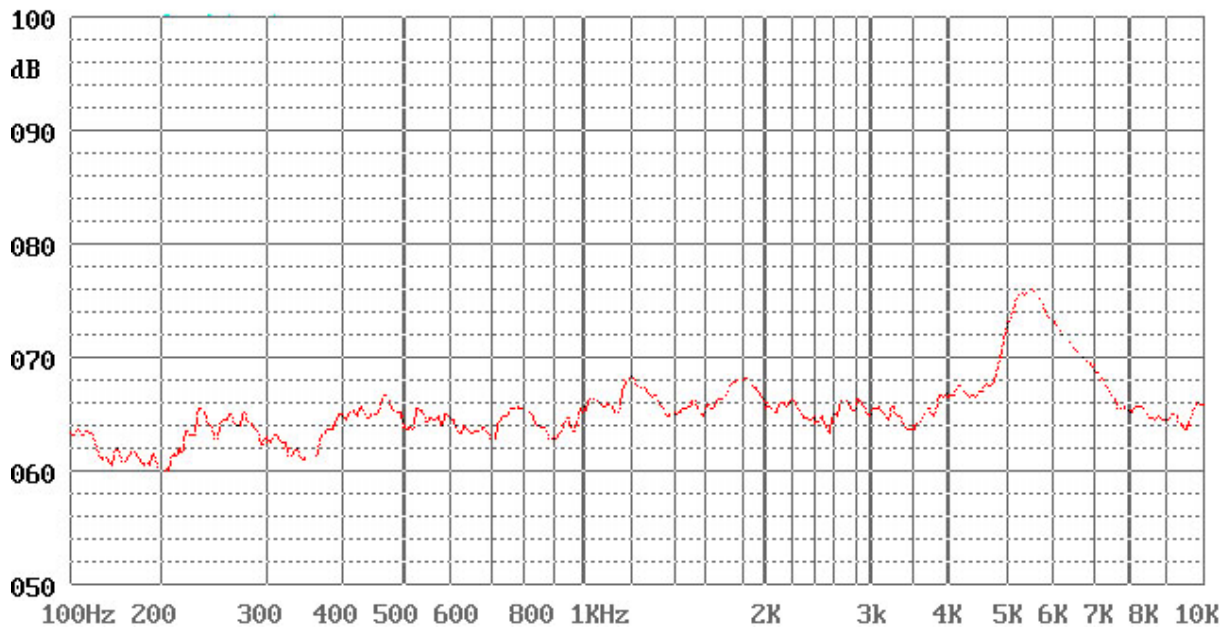
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**TEST METHOD:**



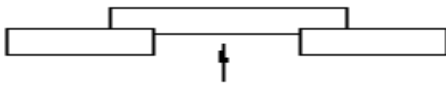
**FREQUENCY RESPONSE:**



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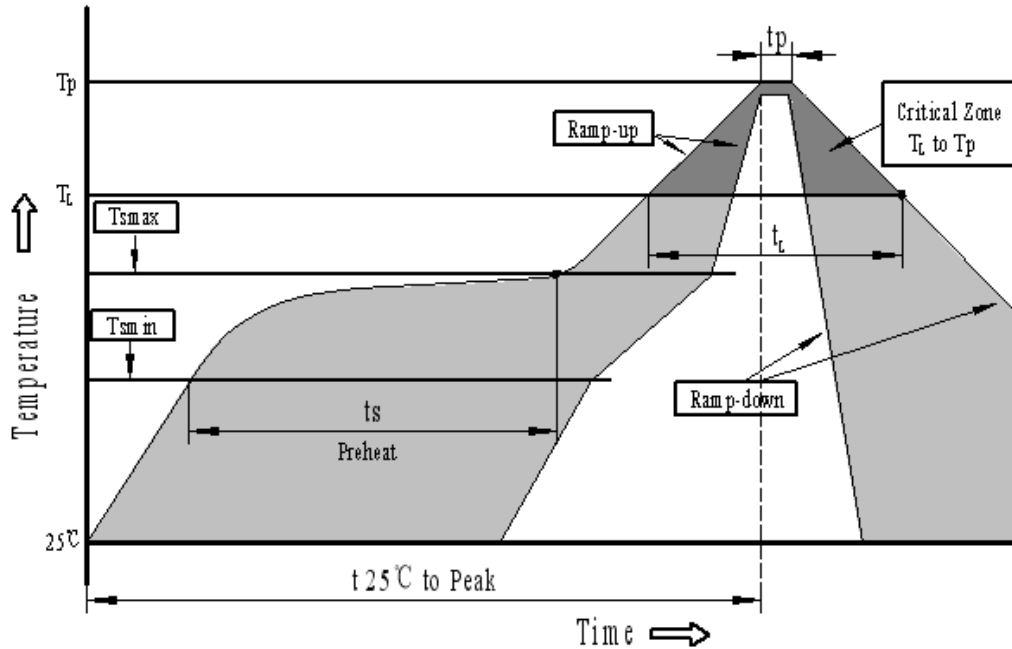
**RELIABLY TEST:**

NO.	ITEM	TESTING CONDITION	VARIANCE AFTER TEST
1	High temp. storage life	The part shall be capable of withstanding a storage temperature is +85°C for 120 hours	<i>All specifications must be satisfied after the test.</i>
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 85±2°C, 30 minutes 20±5°C 15 minutes	
4	Humidity Test	40±2°C, 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/s <sup>2</sup> ) 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 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.