



请承认书

Version No.: V2.0

常州昊翔电子有限公司
Changzhou HaoXiang Electronic Co., LTD
 客户名称
CUSTOMER NAMED : _____
 产品名称
COMMODITY : SMD Speaker
 产品型号
MODEL NO : TDA-M1313KC8D40
 客户料号
PART NO : _____

审核	秦皓	主办	唐俐雅 Nov.14,2018
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客户承认栏			
承认		拒收	

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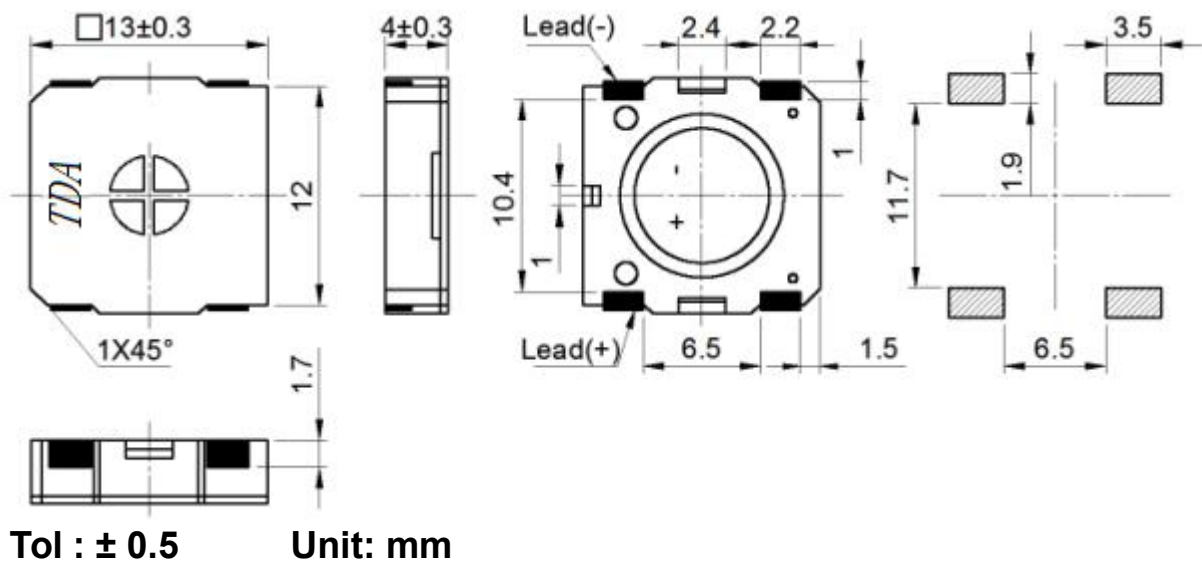
A. MODEL: TDA-M1313KC8D40

B. SPECIFICATION

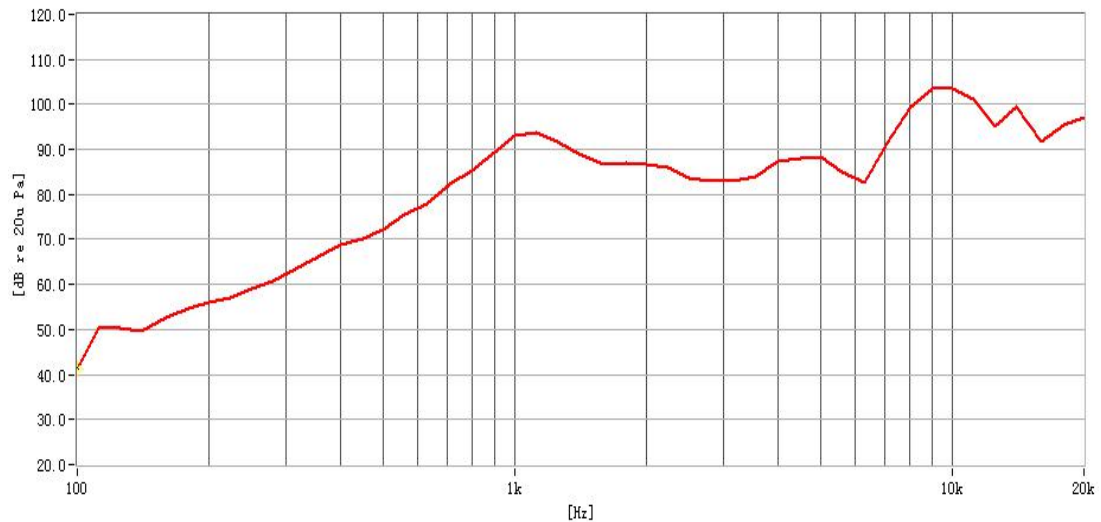
Test condition: Temperature: 15~35°C Related Humidity:25~75% (GB/T9396-1996)

No.	Item	Specification	Condition
1	Dimension	13 x 13 x H4.0mm	See appearance drawing
2	Weight (MAX)	1.1g	
3	Impedance	8±20%Ω	
4	Output Sound Pressure Level	88±3dB(0.1M,0.7W)	Average at 1.0k,1.6k,2.0k,3.2kHz
5	Response Frequency	1050±20%Hz	at 0.1m, 0.7W
6	Frequency Range	F0~20KHz	
7	Distortion	≤5%	at 2.0kHz,0.7W
8	Power Rating	Normal: 0.7W Maximum: 1.0 W	
9	Operating temperature	-40~ +85°C	
10	Storage Temperature	-45~+95°C	
11	Abnormal Sound test	Must be Normal Tested By 2.37Vrms	Sine Wave
12	RoHS	The Speaker is RoHS compliant.	

C. APPEARANCE DRAWING



D.FREQUENCY RESPONSE



E. MEASURING METHOD(SPEAKER MODE)

F-1. Test Condition

(a)STANDARD:

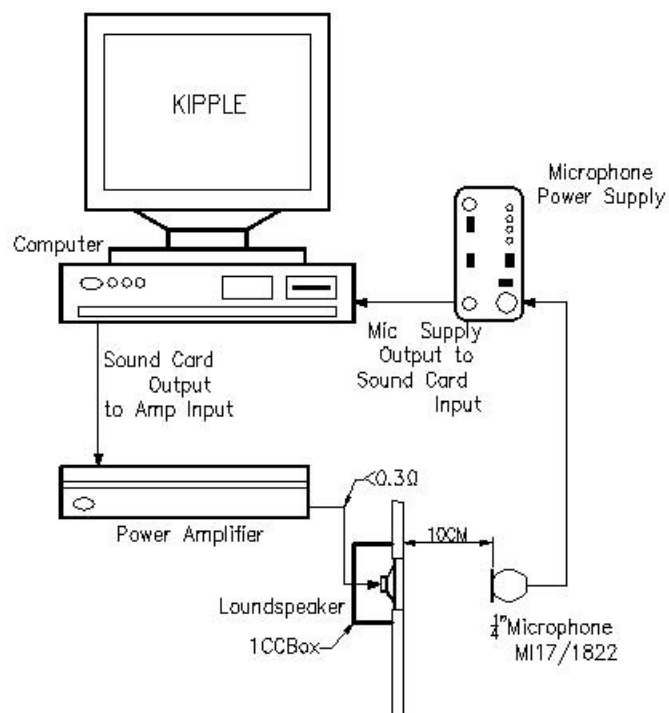
Temperature : 15 ~ 35°C, Relative humidity : 45% ~ 85%,
Atmospheric pressure : 860mbar to 1060mbar

(b)JUDGEMENT:


Temperature : 20±3°C, Relative humidity : 60% ~ 70%,
Atmospheric pressure : 860mbar to 1060mbar

F-2. Standard Test Fixture

- 1.Input Power : 0.7W
- 2.Zero Level : -dB
- 3.Mode : TSR
- 4.potentiometer Range : 50dB
- 5.Sweep Time : 0.5sec

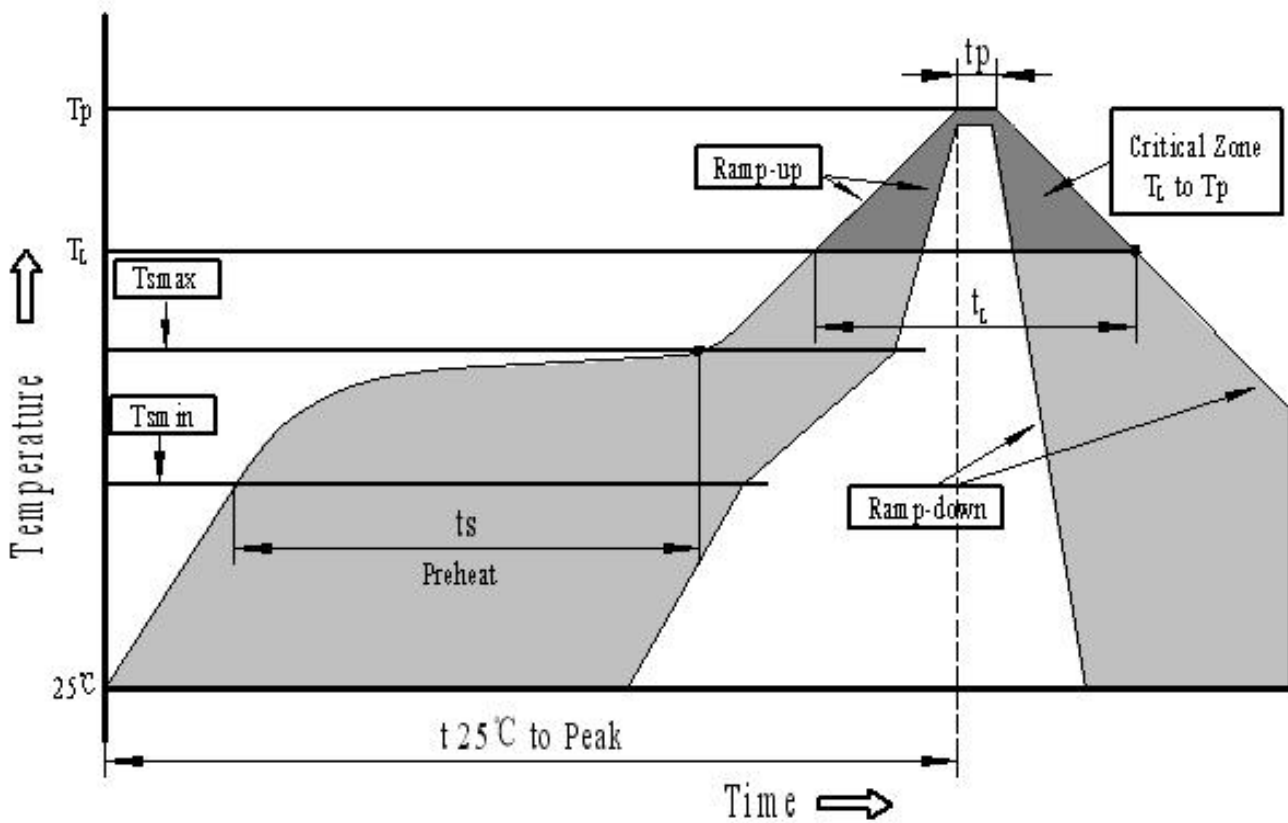


F.RELIABILTY TEST

No.	Item	Condition	Evaluation standard
1	High temp. storage life	The part shall be capable of Withstanding a storage temperature is $+95^{\circ}\text{C}$ for 120 hours	All specifications must be satisfied after the test.
2	Low temp storage life	The part shall be capable of Withstanding a storage temperature is -45°C for 120 hours	
3	Temp. Cycle	Total 5 cycles 1 cycle consisting of $-40\pm 2^{\circ}\text{C}$, 30 minutes $20\pm 5^{\circ}\text{C}$ 15 minutes $85\pm 2^{\circ}\text{C}$ 30 minutes $20\pm 5^{\circ}\text{C}$ 15 minutes	
4	Humidity Test	$40\pm 2^{\circ}\text{C}$, 90~95%RH, 120hours	
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^2) 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. 2directions-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	

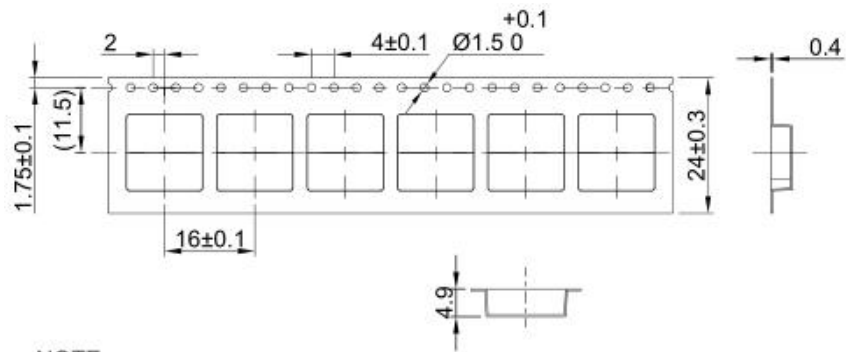
Warranty: For a period of one year from date of manufacture under normal operations.

G. RECOMMENDED TEMP. PROFILE FOR REFLOW OVEN



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.

H. PACKING STANDARD



NOTE:

1. 10 sprocket hole pitch cumulative tolerance +/-0.20mm.
2. All dimensions meet EIA-481-D requirements.
3. Thickness: 0.4+/-0.05mm.
4. Component loaded per 13" reel: 600pcs.

