

请承认书

Version No.: <u>V2.0</u>

常州	昊 翔 申	1 子 有 限	公 司
Changzhou	ı HaoXian	g Electronic C	o., LTD
客户名	3 称		
CUSTOME	R NAMER :_		
产品名	分 称		
COMMODI	:	SMD Speak	er
产品型	旦 号		
MODEL NO	:	TDA-M1313KC8	D40
客户彩	号		
PART NO	:		
审核	秦皓	主办	唐俐雅 Nov.14,2018
		承认栏	

	客	户	承	认	栏	
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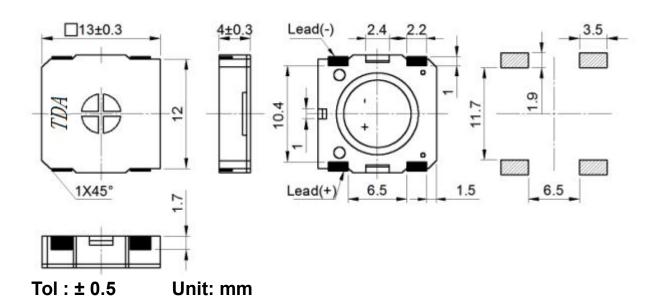
A. MODEL: TDA-M1313KC8D40

B. SPECIFICATION

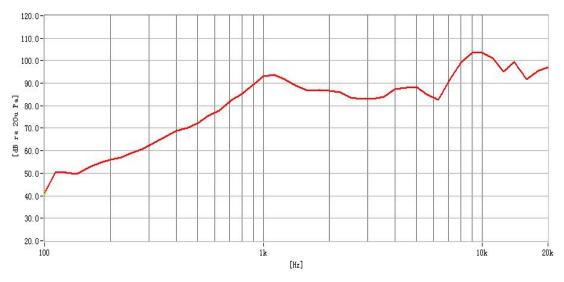
Test condition:	Temperature: 15~35°C	Related Humidity:25~75%	(GB/T9396-1996)
rest condition.	Temperature. 15 55 C	related Hullilatty.23 7370	(00/1000-100)

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℃	
10	Storage Temperature	-45∼+95℃	
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 : $15 \sim 35^{\circ}$ °C, Relative humidity : $45\% \sim 85\%$,

Atmospheric pressure: 860mbar to 1060mbar

(b)JUDGEMENT:

Temperature : $20\pm3^{\circ}$ °C, Relative humidity : $60\% \sim 70\%$,

Atmospheric pressure: 860mbar to 1060mbar

F-2.Standard Test Fixture

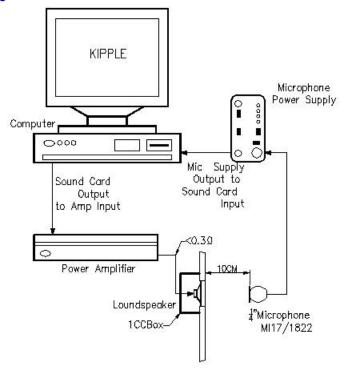
1.Input Power :0.7W

2.Zero Level : -dB

3.Mode: TSR

4.potentiometer Range: 50dB

5.Sweep Time: 0.5sec

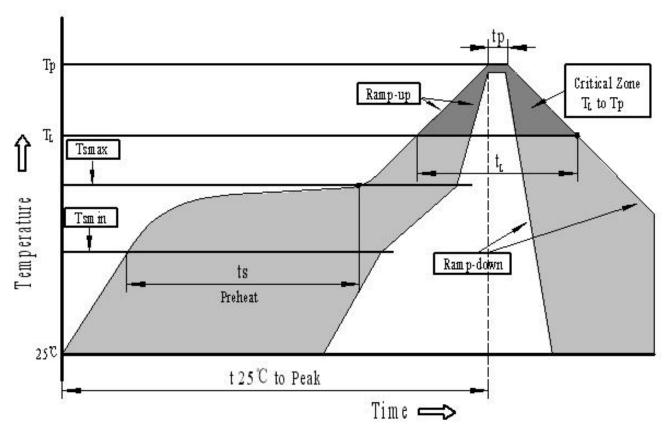


F.RELIABILTY TEST

No.	Item	Condition	Evaluation standard	
1	High temp. storage life	The part shall be capable of Withstanding a storage temperature is +95 $^{\circ}\mathrm{C}$ for 120 hours		
2	Low temp storage life	The part shall be capable of Withstanding a storage temperature is -45 $^\circ\!$		
3	Temp. Cycle	Total 5 cycles 1 cycle consisting of $-40\pm2^\circ\mathbb{C}$, 30 minutes $20\pm5^\circ\mathbb{C}$ 15 minutes $85\pm\ 2^\circ\mathbb{C}$ 30 minutes $20\pm5^\circ\mathbb{C}$ 15 minutes		
4	Humidity Test	40±2℃,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	All specifications must be satisfied after the test.	
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. 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 \pm 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		

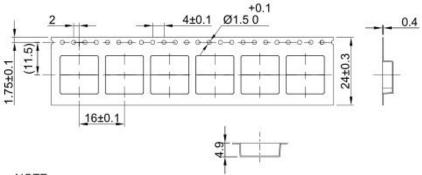
 $Warranty: \ \ \text{For a period of one year from date of manufacture under normal operations}.$

G. RECOMMENDED TEMP. PROFILE FOR REFLOW OVEN

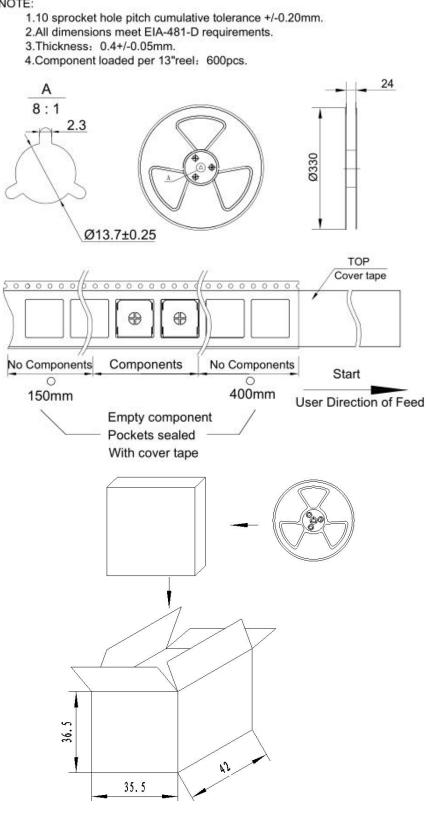


Profile Feature	Pb-Free Assembly	
Average ramp-up rate(T _L to Tp)	3°C/second max.	
Preheat		
-Temperature Min.(Ts _{min})	150℃	
-Temperature Min.(Ts _{max})	200℃	
-Temperature Min.(ts)	60∼180 seconds	
Ts _{max} to T _L		
-Ramp-up Rate	3°C/second max.	
Time maintained above:		
- Temperature(T _L)	217℃	
-Time(T_L)	$60\sim150$ seconds	
Peak temperature(Tp)	245°C+0/-5°C	
Time within 5°C of actual Peak temperature (tp)	6 seconds max.	
Ramp-down Rate	6°C/second max.	
Time 25°C to Peak Temperature	8 minutes max.	

H. PACKING STANDARD



NOTE:



I. NOTICE ON PRODUCT STORAGE

a. Please store the products in room where the temperature / humidity is stable. And avoid such places where there are large temperature changes. Please store the products under the following conditions :

Temperature : -10 to +40 (degree C)

Humidity: 15 to 85% R.H.

- b. Expire date (Shelf life) of the products is 6 months after delivery under the conditions of a sealed and an unopened package. Please use the products within 6 months after delivery. If you store the products for a long time (more than 6months), use carefully because the products may be degraded in the solder-ability and/or rusty. Please confirm solder-ability and characteristics for the products regularly.
- **C.** Please use the products immediately after the package is opened, because the characteristics may be reduced in quality, and/or be degraded in the solder-ability due to storage under the poor condition.

J. REVISION

No.	DATE	DESCRIPTION	REMARK	VERSION
1	2017.03.30	Initial condition	TDA-M1313KC8D40	V1.0
2	Nov.14,2018	Version upgrade	TDA-M1313KC8D40	V2.0