Piezo-THT-Buzzer without oscillator

Electrical and Acoustical Parameter

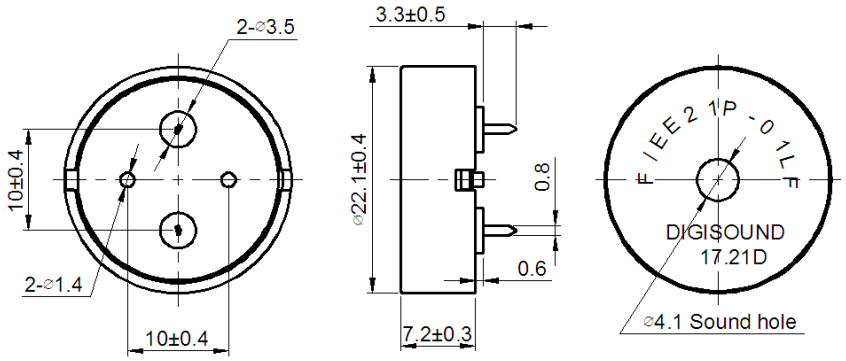
Rated Voltage	3	Vpp
Max Input Voltage	30	Vpp
Current Consumption*	≤3	mA
Capacitance	15000 ±30%	pF at 100 Hz
Sound Pressure Level*	≥80	dB(A) at 10 cm
Resonance Frequency	4000 ±500	Hz
Remark	*Applying rated voltage (Resonant frequency, Square wave 50% duty cycle)	

Mechanical, Environmental Parameter

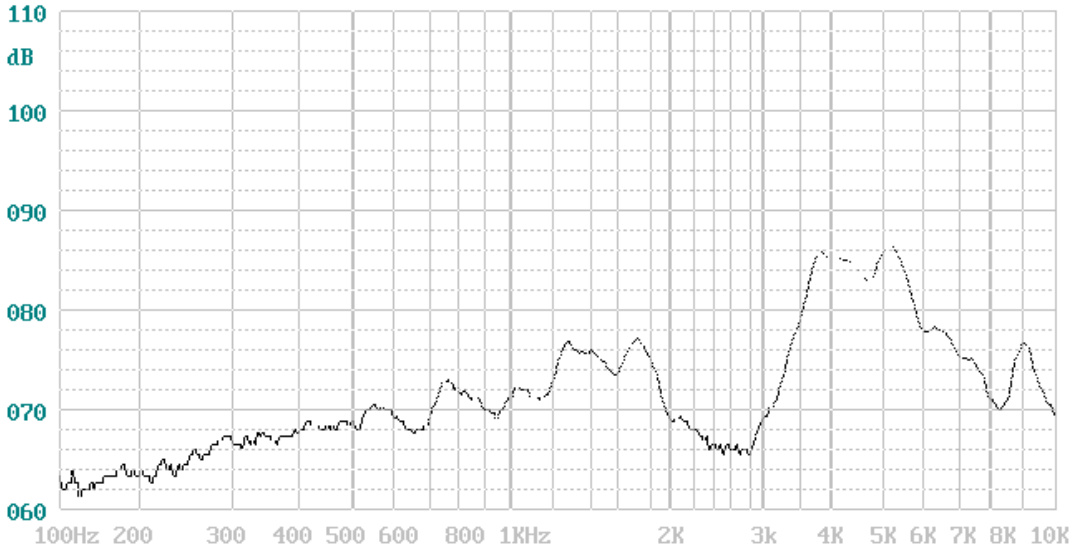
Contact / Wire	Pin Ø0.8	mm
Contact / Wire Plating	Cu + Sn	
Operating Temperature (°C)	-40 to +85	°C
Storage Temperature (°C)	-40 to +90	°C
Housing Material	PBT	
Housing Colour	Black	
Component Weight (g)	2.3	g
Remark		

Drawing of Component and PCB Footprint

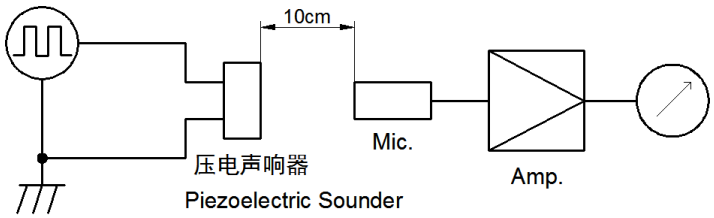
Unit: mm
Dimensions without tolerance ±0.5 mm



Frequency Response



Test Method



MIC: ND10 普通声级计或等同品
MIC: ND10 Sound Meter or equivalent

信号发生器: DF1641D或等同品
Signal Generator: DF1641D or equivalent

Reliability Test

Environment Test:

No.	Item	Test condition	Evaluation standard
1	High temp. test	+90 ±2 °C, 96 h	After being placed for 2 to 4 hours at room temp, the product shall meet specifications, except the SPL should be in ±10 dB(A) compared with initial one.
2	Low temp. test	-40 ±2 °C, 96 h	
3	Humidity test	+40 ±2 °C, 93 ($^{+2}/_{-3}$)% RH for 96 h	
4	Temp. cycle test	-40 ±2 °C, 30 minutes +20 ±2 °C, 15 minutes +90 ±2 °C, 30 minutes +20 ±2 °C, 15 minutes 5 cycles	

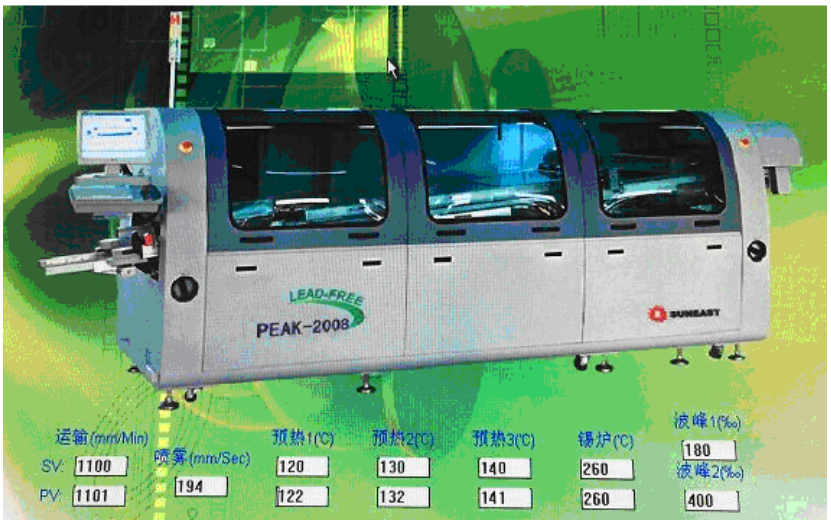
Mechanical Characteristics:

No.	Item	Test condition	Evaluation standard
1	Solder ability	Pin terminals are immersed in rosin for 5 seconds and then immersed in solder bath of 270 ±5 °C for 3 ±1 sec.	90% min. lead terminals shall be wet with solder.(Except the edge of terminal)
2	Soldering heat resistance	Pin terminals are immersed up to 1.5 mm from part's body in solder bath of 260 ±5 °C for 10 ±1 sec. Refer to GB2423.28.	No interference in operation
3	Vibration	1.5 mm with 10 to 55 Hz band of vibration frequency to each of 3 perpendicular directions for 2 h.	After the test part shall meet specifications, except the SPL should be in ±10 dB(A) compared with initial one.
4	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).	

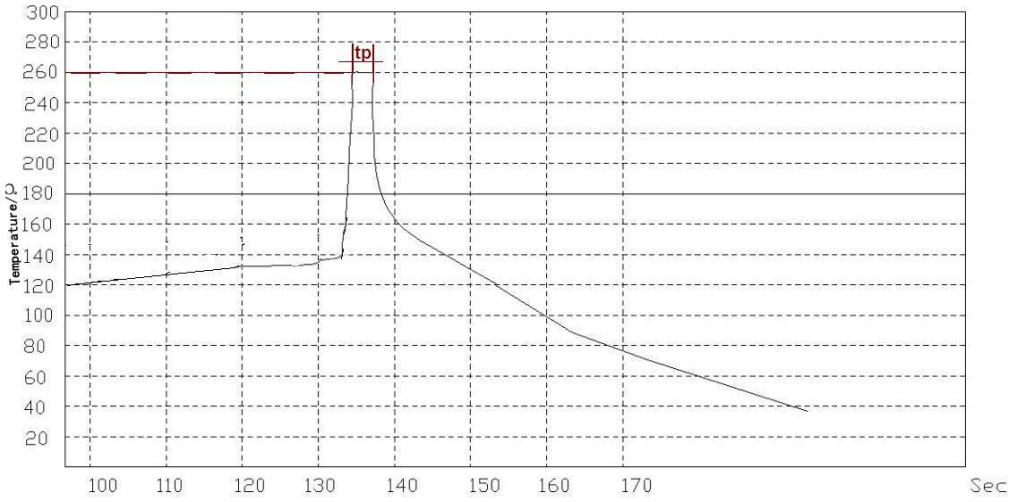
Solder Method

No.	Item	Test condition	Evaluation standard
1	Hand soldering	Solder Temp.: 350±10 °C; Times: Max. 3 seconds.	All specifications must be satisfied after the test.
2	Wave Soldering	Preheat 1 ： 120 °C; 130 °C Preheat 2 ： 130 °C; 140 °C Preheat 3 ： 140 °C; 150 °C Tin oven Temp(Tp)./Times ： 260±5 °C /3 s Transmit speed ： 1200 mm/min Refer to Recommended Temp. Profile for Wave-soldering Oven	

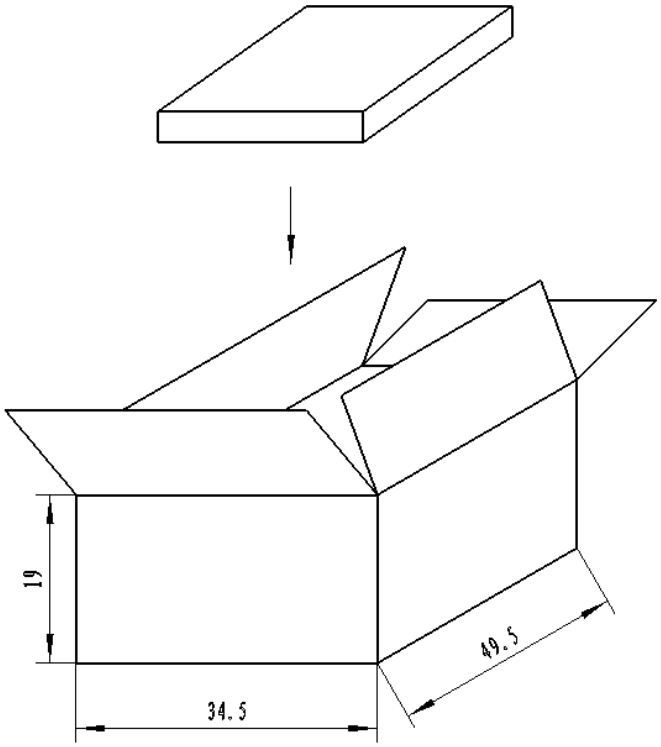
Wave-soldering Oven:



Recommended Temp. Profile for Wave-soldering Oven



Packaging Information



1. 100 PCS per box
2. Total 20 boxes per carton
3. Total 2000 PCS carton
4. Volume 49.5×34.5×19 cm

Revision Table

Index Nr.	Reason - Procedure Change description	Date	Name	Comments
01	Change: Housing material PPO→PBT, Dimensions, Pin length and size, Reliability test, Packaging, Add: Color, Pin material, Soldering Method	13.01.2020	TF	