

Electrical and Acoustical Parameter

Rated voltage (VDC)	5.0
Operating voltage (VDC)	3.0 – 16.0
Rated current (mA)*	max. 5.0
Reverse Current(mA)	max. 100
Sound pressure level (dBA/10cm)*	min. 80
Resonance Frequency (Hz±500)	4000

Remark:

*Value applying rated voltage (DC)

Mechanical, Environmental Parameter

Contact / Wire	SMD
Operating temperature (°C)	-40 to +85
Storage temperature (°C)	-40 to +90
Material housing	PPS
Color housing	Black
Component weight (g)	2.3
MSL (Moisture Sensitivity Level)	5a(≤30°C/60%RH24H Floor Life)

Remark:

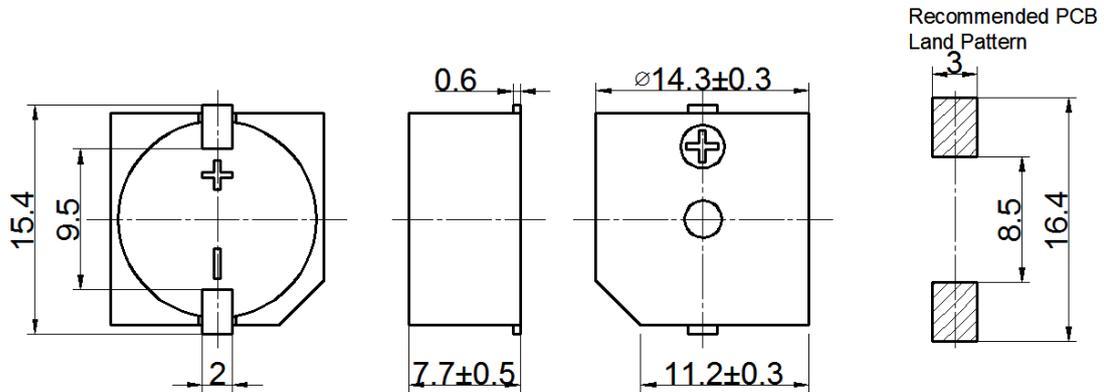
Approval

RoHs	<input checked="" type="checkbox"/>
UL	<input type="checkbox"/>

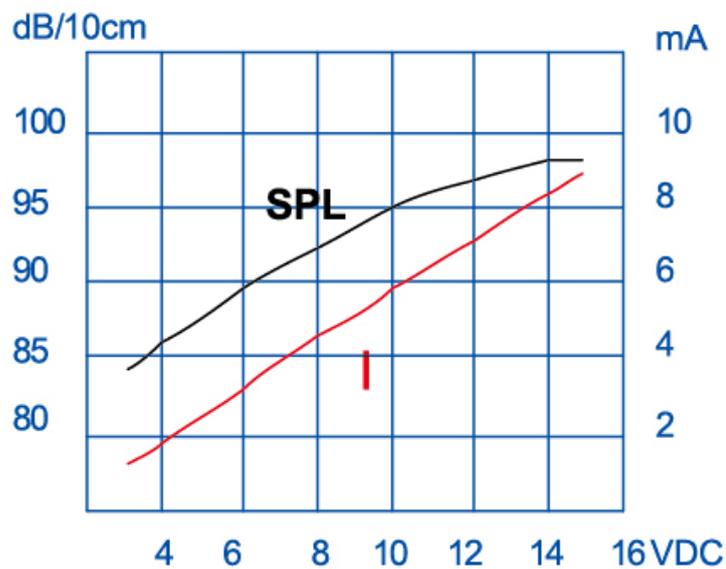
Designed by	MZ	01.10.2014	Dimensions without tolerance ±0.5mm	Index: 02	Current date
Released by	CB	01.10.2014	Drawing number	141001.1PDB	12.01.2016
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Drawing of Component

Unit:mm

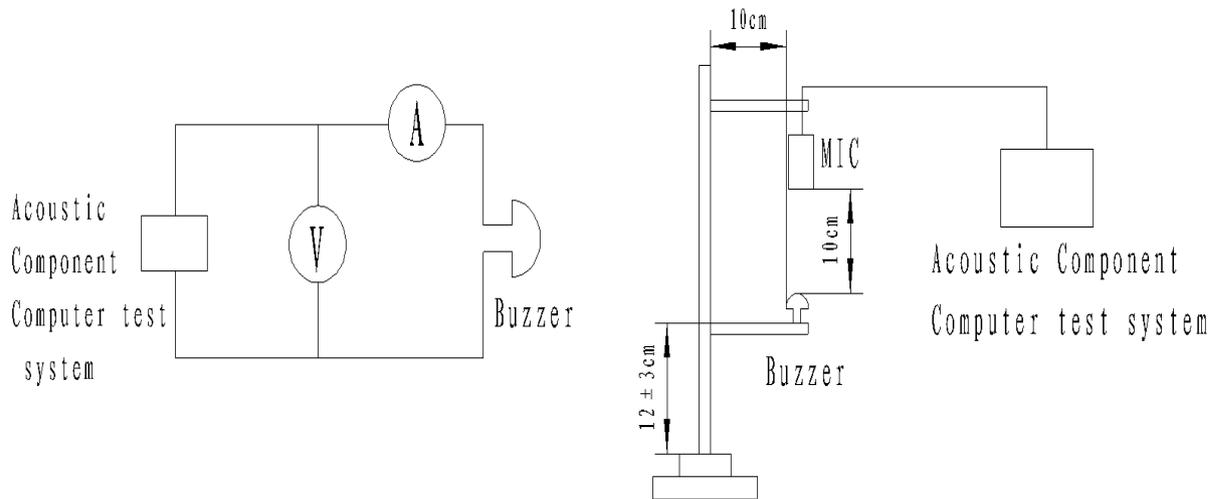


SPL & Current Consumption vs. Input Voltage



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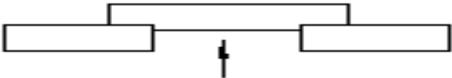
Test Method



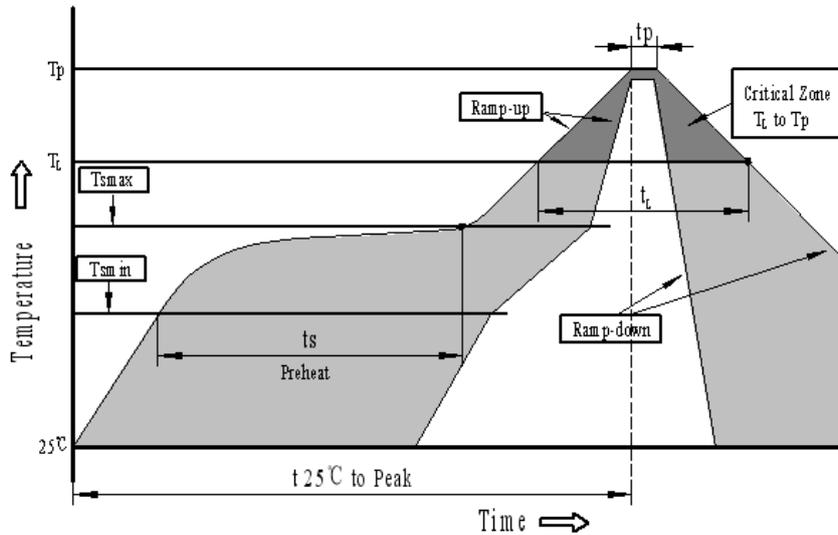
Reliability Test

NO.	ITEM	TESTING CONDITION	VARIANCE AFTER TEST
1	High temp. storage life	The part shall be capable of withstanding a storage temperature is +90°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 40±5°C 15 minutes 90±2°C, 30 minutes 40±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/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.	

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8	Lead pull	<p>The part shall be pushed with a force of 9.8N for 10±1 seconds behind the part.</p> 	<p>After the test part shall meet specifications without any degradation in appearance and performance.</p>
9	Recommended temp. Profile for Reflow Oven	Shown in Fig.1	

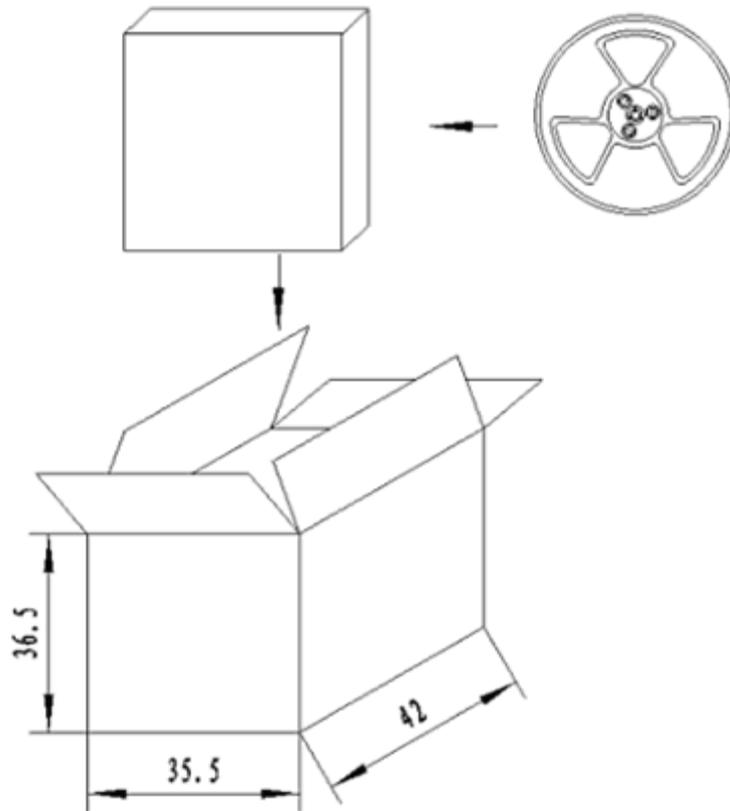
Recommended Temp. Profile for Reflow Oven



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.

Information: hand soldering is not possible

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NOTES:

- 1.350 PCS per box
- 2.Total 10 boxes per carton
- 3.Total 3500 PCS carton
- 4.Volume:42×35.5×36.5cm

Revision Table

Index Nr.	Date Reason - Procedure Change description	Drawing Date	implementation	Comments
			LS-Nr.: Date	
1	Operating voltage, rated current, drawing, SPL & current, packaging	16.12.15	16.12.15	M.Z.
2	Drawing dimensions, t.o.r.distance	12.01.16	12.01.16	M.Z.

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