



Contitec Electronics Ltd.
Martin-Kollar-Str. 4
D-81829 München


Tel. +49 89 99 81 86 30
Fax. +49 89 3219 50 75
eMail: sales@contitec.com
web: www.contitec.com

Component Specification

Product : Piezo Buzzer
Part Number : CA-P0909A034065S
Drawing No : DRW11057A

Content

1. General
2. Electrical & Acoustical Characteristics
3. Test Circuit
4. Frequency Response Curve
5. Dimension & Structure
6. Reliability Test
7. Reflow Soldering
8. Packing
9. Revision

	Part No.	Drawing No.	Page
	CA-P0909A034065S	DRW11057A	2 / 8

1) General

This product specification is applied to our standard the magnetic transducer in SMD package. Please contact us for customer specific solutions.

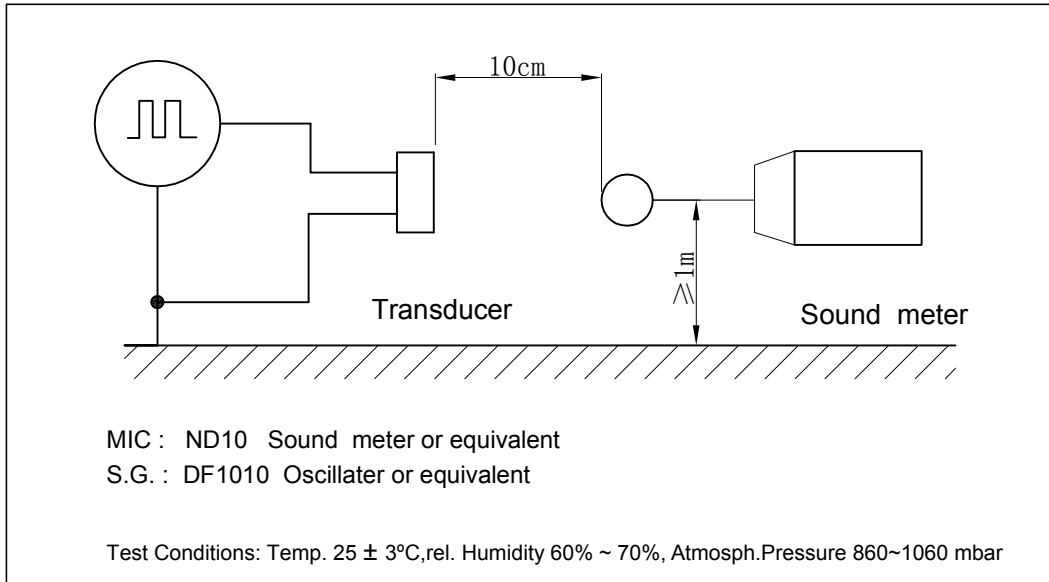
2) Electrical & Acoustical Specifications

	Type	Specification
1	Rated Voltage (Square Wave)	3 (5)* Vp-p
2	Operating Voltage	1-25 Vp-p
3	Rated Current (Max)	1 mA
4	Resonance Frequency	4000 Hz
5	Min. Sound Pressure Level	65 (73)* dB
6	Capacitance at 120Hz	12000 ± 30%
7	Operating Temperature Range	-30+70°C
8	Store Temperature Range	-40+85°C
9	Weight	0.2g
10	Dimension	9.0x9.0 mm
11	Housing Material	LCP
12	Connection	SMD

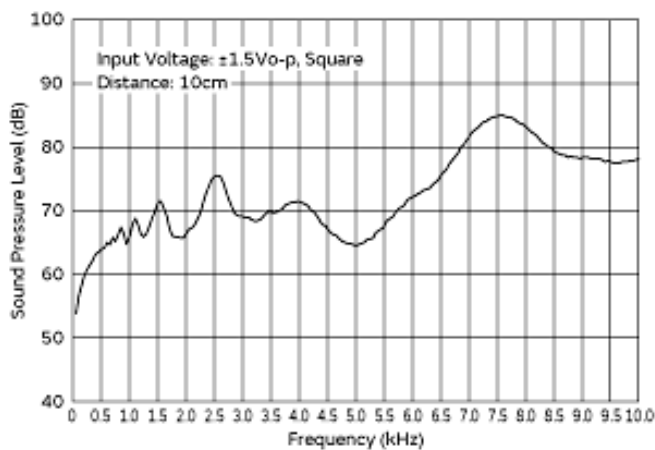
* Value Applying at Rated Voltage (resonance frequency)
The increase of rated voltage to 5 Vpp leads to aprox. 73dB SPL.

1.0	15/09/01	Production release	L. Hua	T. Feng	G. Schubert
Revision	Date	Notes	Drawn by	Checked by	Approved by


3) Test Circuit



4. Frequency Response Curve

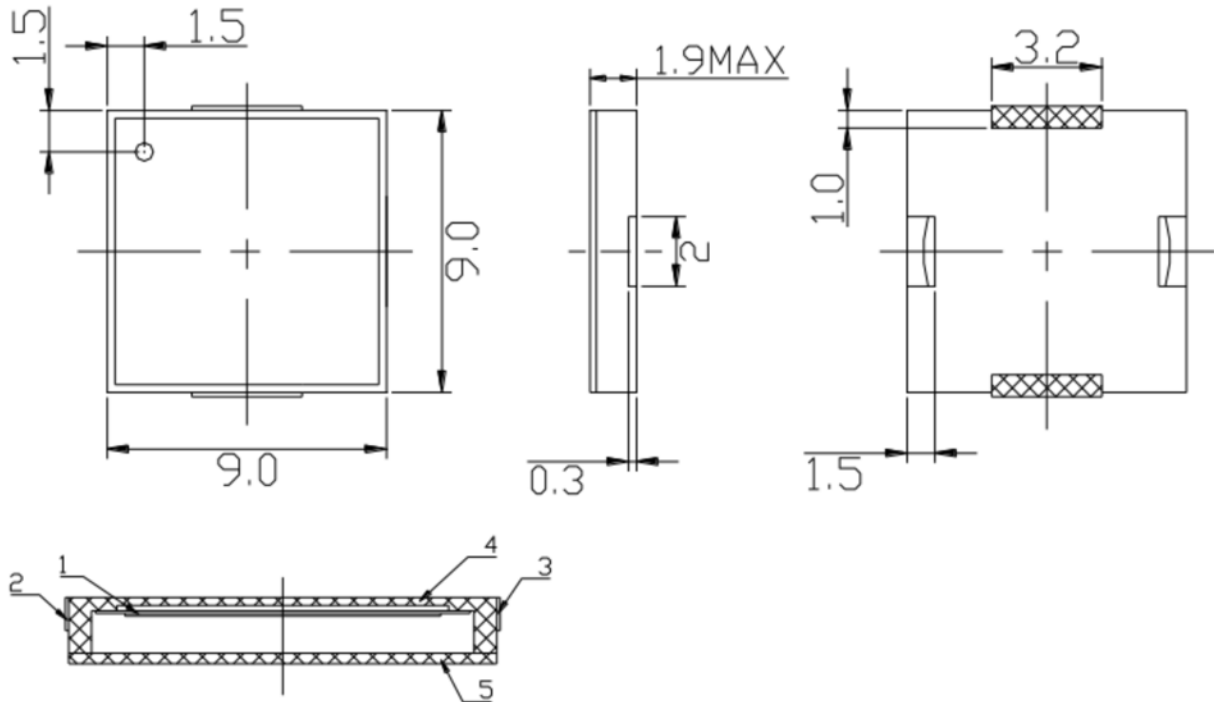


1.0	15/09/01	Production release	L. Hua	T. Feng	G. Schubert
Revision	Date	Notes	Drawn by	Checked by	Approved by

	Part No.	Drawing No.	Page
	CA-P0909A034065S	DRW11057A	4 / 8

5) Dimensions & Structure


Unless otherwise specified, tolerance: ± 0.5 (unit:mm)



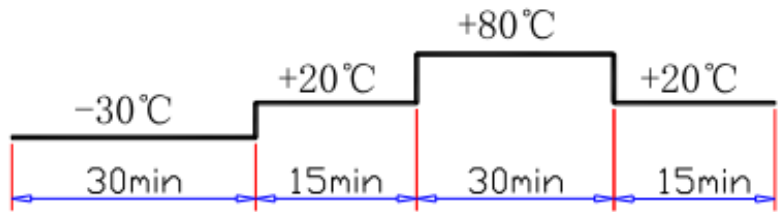
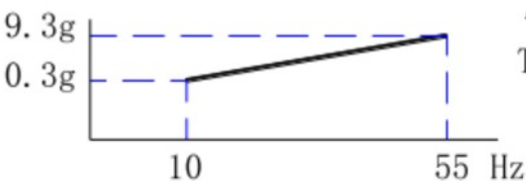
- 1) All parts meet ROHS.
 2) Reflow solder allowed and wash not allowed.

5	Cover	1	LCP
4	Housing	1	LCP
3	Pin	1	Brass (Dsn)
2	Pin	1	Brass (Dsn)
1	Piezo element	1	Nickel
No.	Part Name	QTY	Material

1.0	15/09/01	Production release	L. Hua	T. Feng	G. Schubert
Revision	Date	Notes	Drawn by	Checked by	Approved by

	Part No.	Drawing No.	Page
	CA-P0909A034065S	DRW11057A	5 / 8

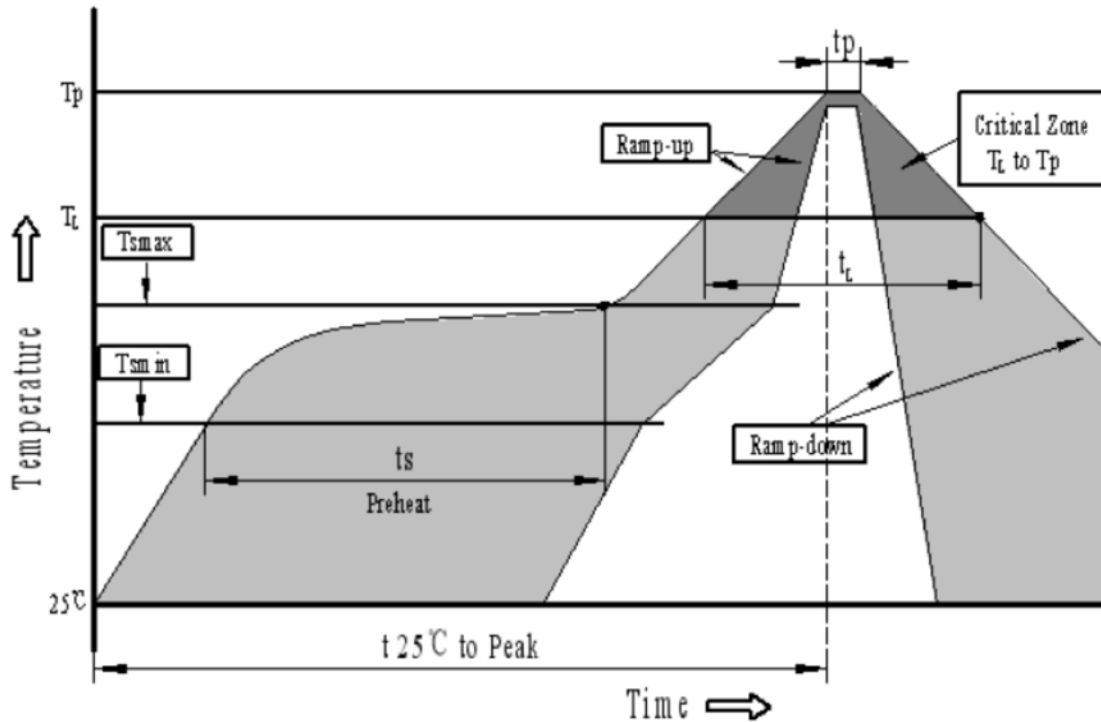
6) Reliability Test

No	Items	Specification
1	Storage in High temp.	Storage in $+85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ test box for 240 hours, then expose to the room temperature for 2 hours without applying power.
2	Storage in Lower temp.	Storage in $-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ test box for 240 hours then expose to the room temperature for 2 hours without applying power.
3	Storage in Humidity	Storage in $+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 90-95%RH test box for 96 hours, then expose to the room temperature for 2 hours without applying power.
4	Temperature Cycle	<p>Make this test for 5 cycle without applying power ,then expose to the room temperature for 2 hours.</p> 
5	Vibration Test	<p>Make this test for the directions of X,Y,Z for 2 hours each (total 6 hours)</p>  <p style="text-align: right;">Amplitude: 1.5mm Time : 1min/axis</p>
6	Drop test	Free drop a unit from the height 100cm to the surface of 10mm thich board, three directions (X,Y,Z)
7	Solderability test	Soldering temp.: $260 \pm 5^{\circ}\text{C}$ Heat applying time: $3 \pm 0.5\text{sec}$.

PASS CRITERION:
After these tests, the change of S.P.L. Shall be within $\pm 5\text{dB}$

1.0	15/09/01	Production release	L. Hua	T. Feng	G. Schubert
Revision	Date	Notes	Drawn by	Checked by	Approved by

7. Reflow Soldering



Profile Feature	Pb-Free Assembly
Average-up rate (TL to TP)	3°C/second max.
Preheat	
- Temperature Min. (T _{smin})	150°C
- Temperature Min. (T _{smax})	180°C
- Temperature Min. (t _s)	60/120 seconds
T_{smax} to TL	
- Ramp-up Rate	3 seconds max.
Time maintained above:	
-Temperature (TL)	230°C
- Time (TL)	40 seconds max.
Peak temperature (T_p)	260°C+0/-5°C
Time within 5°C of actual Peak temperature (t_p)	3 seconds max.
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	4.5 minutes max.

1.0	15/09/01	Production release	L. Hua	T. Feng	G. Schubert
Revision	Date	Notes	Drawn by	Checked by	Approved by



Part No.

Drawing No.

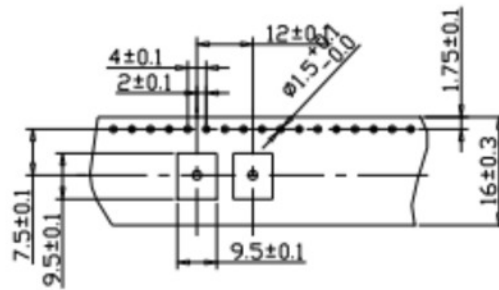
Page

CA-P0909A034065S

DRW11057A

7 / 8

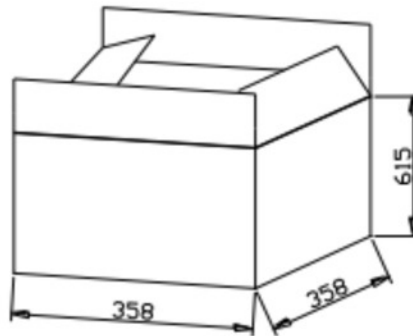
8) Packing



2000PCS/SPPOOL




5SPOOL/BOX



2SMALL BOX/BIG BOX

20000PCS/BIG BOX

1.0	15/09/01	Production release	L. Hua	T. Feng	G. Schubert
Revision	Date	Notes	Drawn by	Checked by	Approved by

	Part No.	Drawing No.	Page
	CA-P0909A034065S	DRW11057A	8 / 8

9) Revision

Rev. No	Date	Page	Description	Sign
10	15/09/01	all	Production release	Wang.Xue

1.0	15/09/01	Production release	L. Hua	T. Feng	G. Schubert
Revision	Date	Notes	Drawn by	Checked by	Approved by