MOBICON
Electronic Components

PRODUCT SPECIFICATION

MEC

Piezo-Buzzer Perliminary

SPECIFICATION

This specifications is subject to change without notice.

MOBICON HOLDINGS LTD.		
Prepared By	Sign.	**Approved By**
Kiko Chan		C.H. Wong

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PART NO. : **FY14A-G**

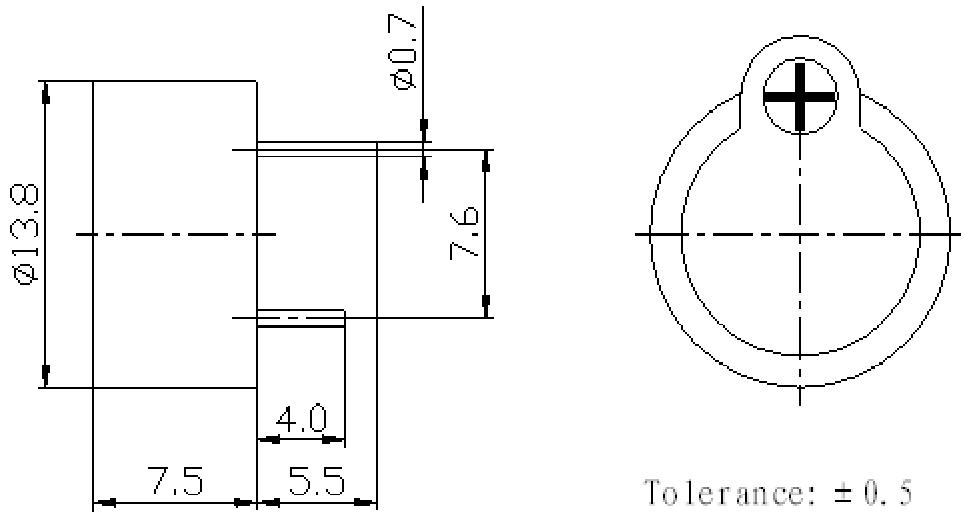
ELECTRICAL CHARACTERISTICS

● *Technical terms*

Type		*FY14A-G*
Rated Voltage	*(V DC)*	*12*
Operating Voltage	*(V DC)*	*3 ～16*
◇ *Rated Current*	*(mA)*	*≤10*
◇ *Sound Output at 10cm*	*(dB)*	*≥85*
◇ *Resonant Frequency*	*(kHz)*	*4.8±0.4*
Operating Temperature	*(℃)*	*-20 ～+70*
Storage Temperature	*(℃)*	*-30 ～+80*

◇*Value applying at rated voltage*

This part is RoHS compliant



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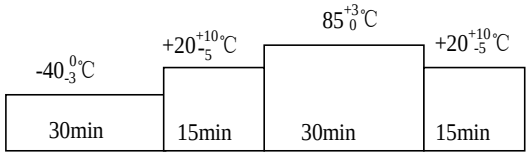
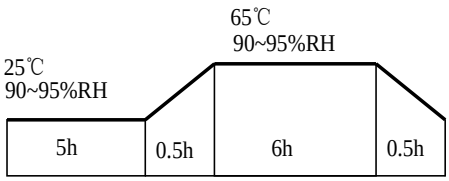
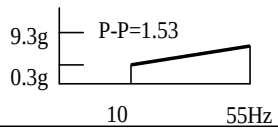
Reliability test

ITEM	METHOD OF TEST	STANDRARD
Storage in high temp.	Storage in +85℃ test box for 96 hours,then expose to the room temperature for 2 hours without applying power.	All specifications must be satisfied in this condition.
Storage in Low temp.	Storage in -40℃ test box for 96 hours,then expose to the room temperature for 2 hours without applying power.	
Temperature cycle test		
	Make this test 50 cycles without applying power, then expose to the room temperature for 2 hours	
Humidity cycle test		
	Make this test 30 cycles without applying power, then expose to the room temperature for 2 hours	
Vibration		
	Make this test for the directions of X,Y and Z for 2 hours each(total 6 hours).To-and-fro sweep times 1 minute.	
Drop test	surface 10mm thick wooden board.Three directions(X,Y&Z)	
Solderability test	Soldering temperature:230℃±5℃ Heat applying time:3sec	

Actural temperature above the PCB

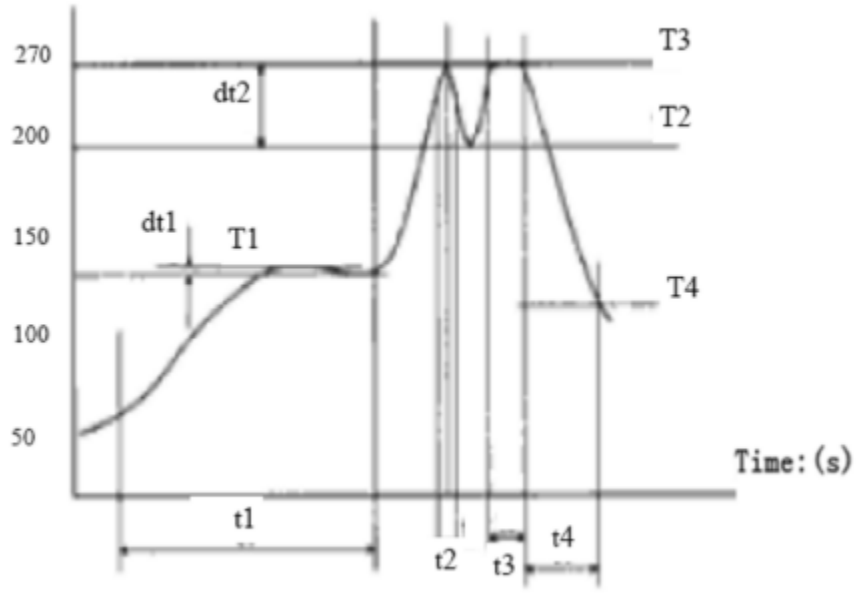


Fig 1,Lead-free wave soldering temperature curve

For lead-free wave peak soldering, the melting temperature of Sn95.5/Ag4.0/Cu0.5 solder is 215-220℃, the soldering peak temperature is 260～270℃ and the temperature of technics window is 30℃. The favorable wetness of solder can be reached when the actual temperature of the components top and PCB solder plate is over 230℃ and the soldering can be implemented effectively. And the effective technics window temperature is only 20℃.

In fig1, the wave soldering temperature curve of lead-free soldering is shown. Besides enough warm-up time and temperature are needed and the soldering time is ensured, the difference between peak temperature and warm-up temperature should be less than 150℃(T3-T1<150℃).

The following temperature points should be noticed especially:

The most decline temperature from warm-up sect to soldering is less than 5℃(dtl＜5℃).

The most decline temperature of peak temperature between two wave peaks is less than 5℃(dtl＜5℃, for high dependable products, dtl＜2℃).

The soldering time between two wave peak is 4 seconds commonly and can't be less than 3 seconds (t2+t3＞3-5 seconds).

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REVIEW OF SPECIFICATIONS

1) When something get doubtful with this specifications, we shall jointly work to get an agreement.

2) This specification limits the quality of the components as a single unit. Please insure the component is thoroughly evaluated in your application circuit.

3) Please do not use this component in any application that deviates from its intended use as noted within the specification. It may cause any mishaps.

4) Please return one of this specification after your signature of acceptance. In case of no return within 3 months from submission date. This specification should be treated as accepted.

When using our products, the following precautions should be taken.

(1) Safety designing of apparatus or a system allowing for failures of electronic components used in the system

In general, failures will occur in electronic components at a certain probability. MOBICON HOLDINGS LTD makes every effort to improve the quality and reliability of electronic component products. However, it is impossible to completely eliminate the probability of failures. Therefore, when using MOBICON HOLDINGS LTD electronic component products, systems should be carefully designed to ensure redundancy in the event of an accident which would result in injury or death, fire, or social damage, to ensure the prevention of the spread of fire, and the prevention of faulty operation.

(2) Quality Level of various kinds of parts, and equipment in which the parts can be utilized

Electronic components have a standard quality level unless otherwise specified.

(3) This specifications is subject to change without notice.

The contents of this specifications are based on data which is correct as of 2002, and they may be changed without notice. If our products are used for mass-production design, please enquire consult with a member of our company's sales staff by way of precaution.

(4) Reprinting and copying of this specifications without prior written permission from MOBICON HOLDINGS LTD are not permitted.

(5) Industrial Property Problems

In the event any problems associated with industrial property of a third party arising as a result of the use of our products. MOBICON HOLDINGS LTD assumes no responsibility for problems other than problems directly associated with the constitution and manufacturing method of the products.