

MOBICON

Electronic Components

PRODUCT SPECIFICATION

MEC TRANSDUCER

Electro-Magnetic Components

PIEZOELECTRIC TRANSDUCER SPECIFICATION

MOBICON HOLDINGS LTD.		
Prepared By	Sign.	Approved By
Leo Wong		C.H. Wong

www.mobicon.com

MIEC

PART NO. :

MTW1601B

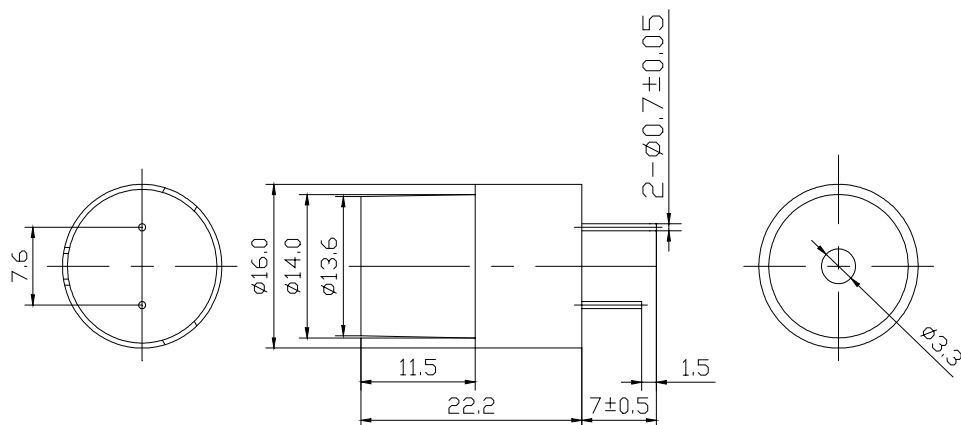
ELECTRICAL CHARACTERISTICS

Technical terms

Type	MTW1601B	MTW1606B	MTW1612B
Rated Voltage (V)	1.5	6	12
Operating Voltage (V)	1~2	3~12	6~18
*Rated Current (mA)	Max.12	Max.40	
Coil Resistance ()	27±3	50±5	115±12
Coil Impedance ()	80	110	200
*Sound Output at 10cm (dB)	Min.80	Min.85	
Resonant Frequency (Hz)	2048	1850~2500(Min.80dB)	
Operating Temperature ()	-40~+85		
Storage Temperature ()	-40~+85		
Weight (g)	7		

* Value applying rated voltage (resonant frequency, 1/2duty, square wave)
 Value applying (resonant frequency, sine wave, measuring current 60 μA)

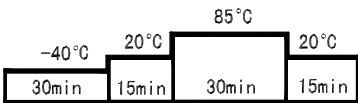
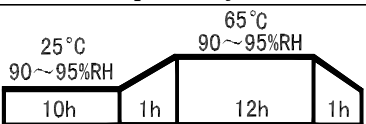
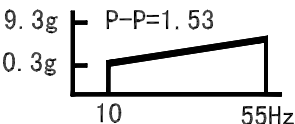
DIMENSION s (mm)



Tolerance: +/-0.5mm

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Reliability test

ITEM	METHOD OF TEST	STANDARD
Storage in high temp	Storage in +85° C 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° C 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 .
Life test in the room temp	Operate continuously for 1000 hours with applying rated voltage .	All specifications must be satisfied in this condition .
Life test in high temp	Operate continuously in +85° C for 500 hours applying 2V(HCM1601B);12V(HCM1606B); 18V(HCM1612B) .	All specifications must be satisfied in this condition .
Life test in low temp	Operate continuously in -40° C for 500 hours applying 1V(HCM1601B);3V(HCM1606B); 6V(HCM1612B) .	All specifications must be satisfied in this condition .
Temperature cycle test	 <p>Make this test 5 cycles without applying power , then expose to the room temperature for 2 hours .</p>	All specifications must be satisfied in this condition .
Humidity cycle test	 <p>Make this test 5 cycles without applying power , then expose to the room temperature for 2 hours .</p>	All specifications must be satisfied in this condition .
Vibration	 <p>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 .</p>	All specifications must be satisfied in this condition .
Drop test	Drop a buzzer naturally from the height of 1m to the surface 10 mm thick wooden board . Three directions(X , Y &Z) .	All specifications must be satisfied in this condition .
Solderability test	Soldering temperature : 230 ° C Heat applying time : 3 sec .	All specifications must be satisfied in this condition .

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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.



Prepared By: Leo Wong
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