

MODEL NO. OBO-1005R-A2

PART NAME
Electromagnetic Transducer

SHEET 1 OF 7

ALTERNATION HISTORY Marking ECN NO. REV. Date PREPARE APPROVE Description Page **X** 1 Change packing tray JUL,25,05 DG0507005 7 NSG 徐俊達 OBO PRO 2IN 2005 JUL 29. 文件发行章

REV.	DATE	PREPARED BY	CHECKED BY	APPROVED BY
E	JUL, 25, 2005	晶 水根	到,试证	多多多



MODEL NO. OBO-1005R-A2

PART NAME
Electromagnetic Transducer

SHEET 2 OF 7

MODEL NO.:OBO-1005R-A2



1. General Requirements:

	Items	Spec.	Conditions
1.1	Rated Voltage	5.0Vo-p	₩ Vcc
1.2	Operating Voltage	4~6 Vo−p	Vo-p
1.3	Resonant Frequency	2730Hz	Square wave 1/2 Duty
1.4	Sound Pressure Level at 10cm	min. 85dB	Standard State, Standard Drive circuit, Rated Voltage, Distance
1.5	Average Current Consumption	max. 100mA	at 0.1m(A—Weight) 2730Hz Squarewave 1/2 Duty.
1.6	Coil Resistance	30±5 Ω	
1.7	Operating Temp. Range	-20°C~+60°C	SPL ≧80dB at "1.4"
1.8	Storage Temp. Range	-40°C ~+85°C	
1.9	Housing Material	PBT	
1.10	Weight	1g	



MODEL NO. OBO-1005R-A2

SHEET 3 OF 7

PART NAME

Electromagnetic Transducer

2. Standard test Conditions

2.1 Standard State

Ordinary Temperature

15°C to 35°C

Ordinary Humidity

25% to 85%

Ordinary air pressure

860 to 1060hPa

In case of doubtful judgment, the test is re-performed under Basic State.

2.2 Basic State

Temperature

20±2°C

Humidity

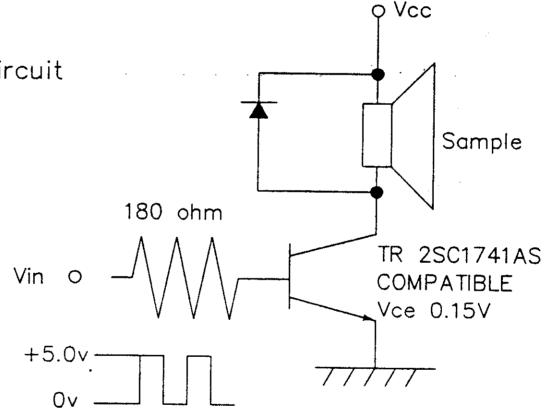
60% to 70%

Ordinary air pressure

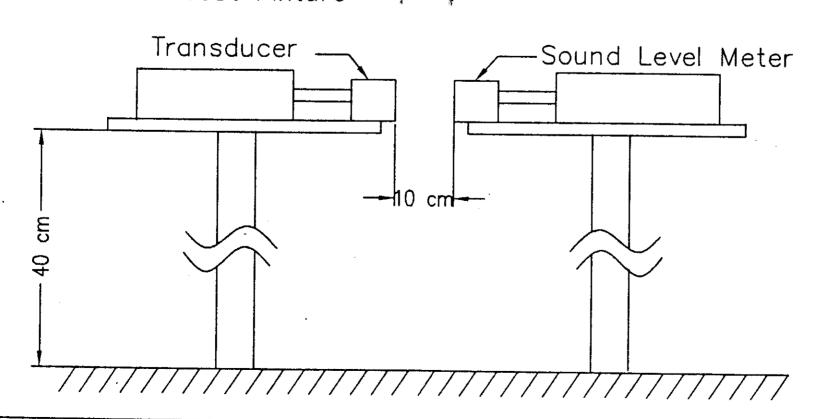
860 to 1060hPa

3. Test method

3.1 Standard Drive Circuit



3.2 Standard Test Fixture





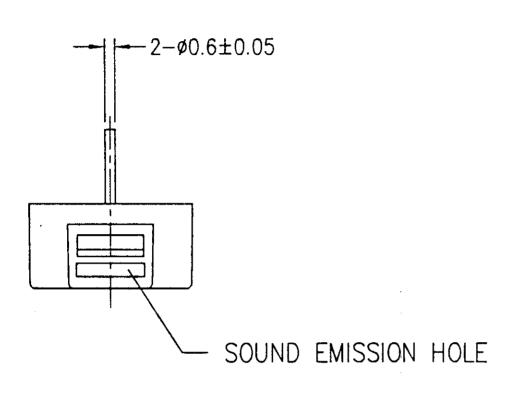
MODEL NO. OBO-1005R-A2

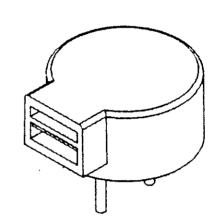
PART NAME
Electromagnetic Transducer

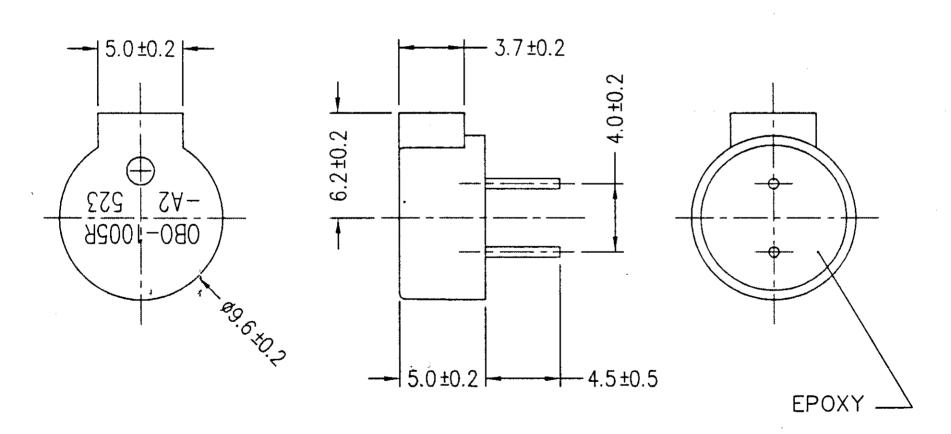
SHEET 4 OF 7

4. Mechanical Layout and Dimensions









Note: Meaning of Stamp Mark

523: Production Lot No.

5 : Year 2005(last 5 figures of the year)

23 : week (01 ~ 55) 1005R-A2 : Model No.

 \oplus : Polarity indentification mark



MODEL NO. OBO-1005R-A2

PART NAME

SHEET 5 OF 7

Electromagnetic Transducer

5	5.Reliability test					
No	Items	Test Conditions	Evaluation Criteria			
1	High Temp. Storage	The part shall be capable of withstanding a storage temperature of +85°C for 240 hours.	After the test the part shall meet specifications without any degradation in appearance and			
2	Low Temp. Storage	The part shall be capable of withstanding a storage temperature of -40°C for 240 hours.	performance except SPL. SPL shall be 80dB or more.			
3	Thermal Shock	The part shall be subjected to 50 cycle. One cycle shall consist of: +85°C -40°C -30Min.—30Min.— transfer time: 10 minutes				
4	Humidity Test	The part shall be subjected to +60°C, 90% RH for 240 hours, and expose to room temperature for 6 hours.				
5	Vibration	10 — 55 — 10Hz, Sinewave, Sweep 15 min. X,Y,Z 3 Direction 2 hours each, Total 6 hours.				
6	Free Drop	The part only shall be dropped from a height of 150cm onto the 4cm thick hardwood board 10 times in any directions.				



MODEL NO. OBO-1005R-A2

PART NAME

Electromagnetic Transducer

SHEET 6 OF 7

No	Items	Test Conditions	Evaluation Criteria			
7	Ordinary Temp. Operating Test	The part shall be subjected to 240 hours at 25±10°C. Input 5.0Vp-p Squarewave 1/2duty 2730Hz	2005 JUL 29 文件发行章			
8	High Temp. Operating Test	The part shall be subjected to 240 hours at +60°C. Input 5.0Vp-p Squarewave 1/2duty 2730Hz				
9	Low Temp. Operating Test	The part shall be subjected to 240 hours at -20°C. Input 5.0Vp-p Squarewave 1/2duty 2730Hz				
10	Hand Solder	Iron tip temp. : 350±10°C Duration : MAX. 2sec				

Notes

As this product is not protected from foreign material entering, please make sure that any foreign materials (e.g. magnetic powder, washing solvent, flux, corrosive gas) do not enter this product in your production processes.

The functional degradation (e.g. SPL down) may occur if foreign material enter it.



MODEL NO. OBO-1005R-A2

PART NAME
Electromagnetic Transducer

SHEET 7 OF 7

