DYNAMIC SPEAKER

Product No. 121739

BLS48-11C-08H21W50

Issue No. BS/TES01.2320





Features:

- Large power
- Loud sound output
- RoHS

Drawn by	Checked by	Approved by	Customer approved
Star.Liu	Grubby. Gao	Jason.Zhang	

BESTAR Holdings Co., Ltd.

www.be-star.com | info@be-star.com

Downloaded from Arrow.com.

Content:

1 Characteristics 3
1.1 Technical terms 3
1.2 Test method 3
1.3 Frequency Response Curve 5
1.4 F0 Curve 6
1.5 Total Harmonic Distortion 7
1.6 R&B Curve 8
2 Dimension 9
3 Reliability Test 10
4 Packing 11
4.1 packing drawing 11
4.2 Packing quantity 11
5 History change record 12
6 Important Notice 13

Downloaded from Arrow.com.

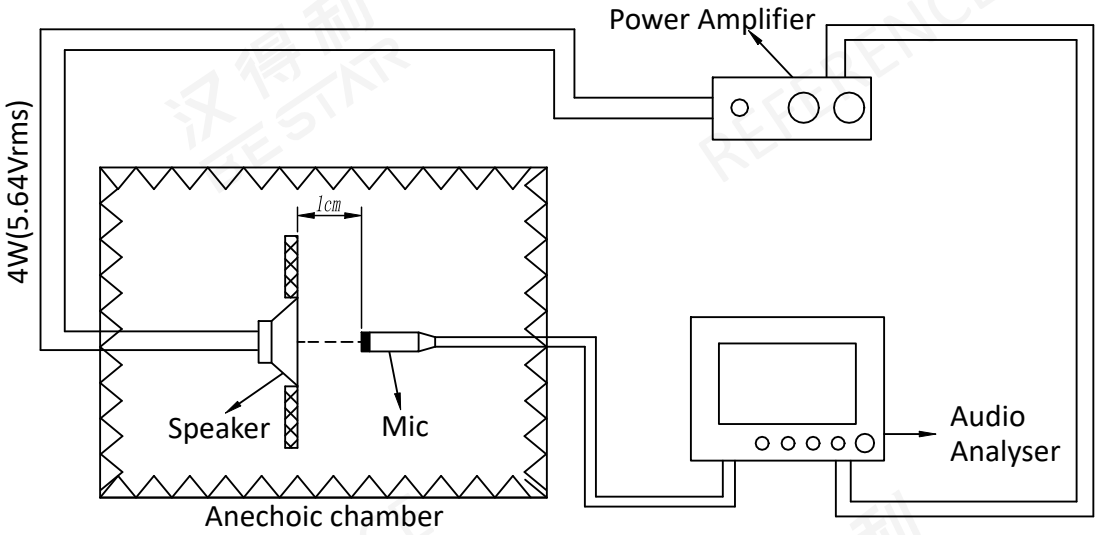
1.Characteristics

1.1Technical terms

1. Size	ϕ48.5*21mm
2. Impedance at 2KHz	8±20%Ω
3. Lowest Resonance frequency	350±20%Hz
4. Effective frequency range	F0...15K Hz
5. Rated input power	4W (5.64V)
6. Maximum input power	5W (6.32V)
7. Buzz & Rattle(at sine wave 5.64V)	must be normal between 300-3400Hz
8. SPL	80±3dB (at 600、800、1000、1200、1500、2000Hz in 1W/1m average 85±3dB (at 600、800、1000、1200、1500、2000Hz in 4W/1m average
9. THD	＜10% (at 1kHz/1W/1m)
10. Weight	≈34g
11. Operating temperature	-40...+105℃
12. Storage temperature	-40...+105℃

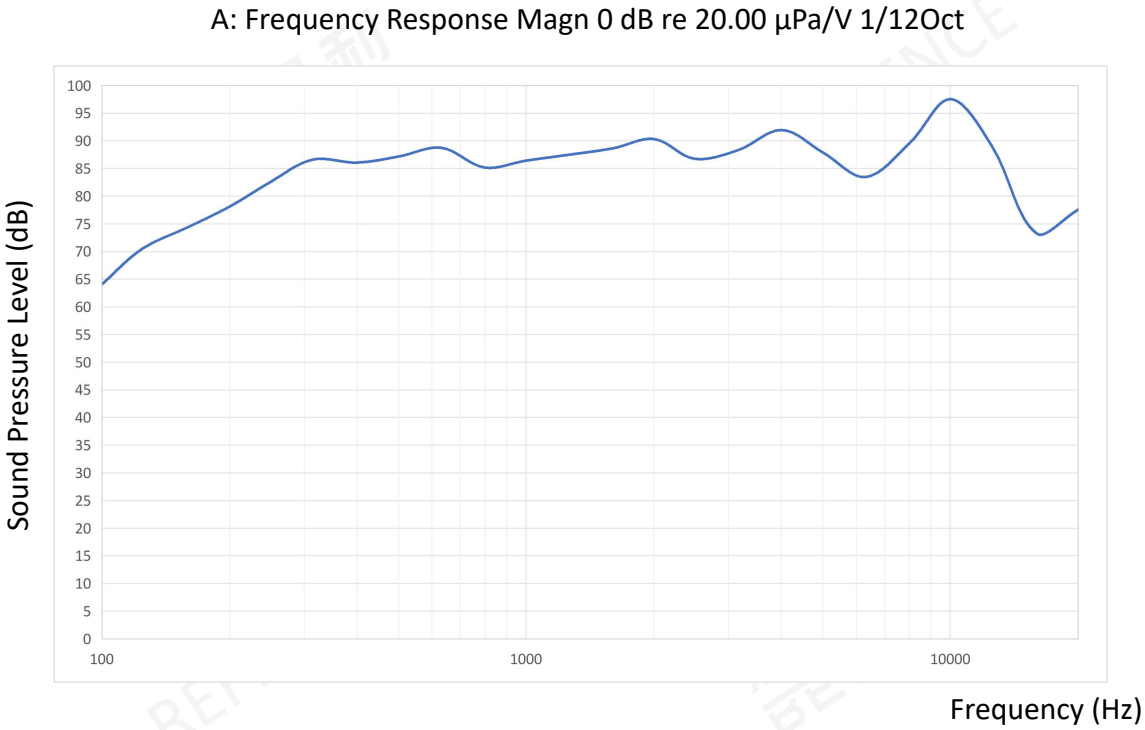
Downloaded from Arrow.com.

1.2 Test method:



Downloaded from Arrow.com.

1.3 Frequency Response Curve (only for reference)

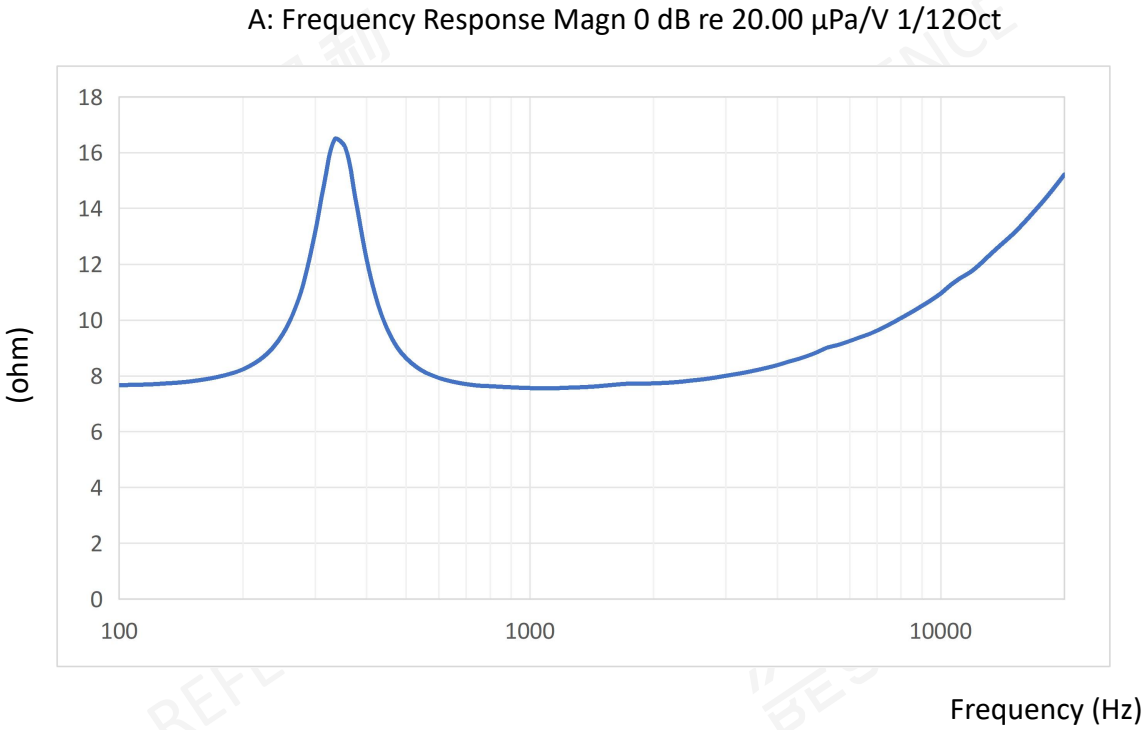


1.3.1 Sensitivity

SPL is expressed in dB rel 20 µPa,computed according to IEC 268-5.
Measurement set up according chapter 1.2 and parameters according chapter 1.3.

Downloaded from Arrow.com.

1.4 F0 Curve (only for reference)

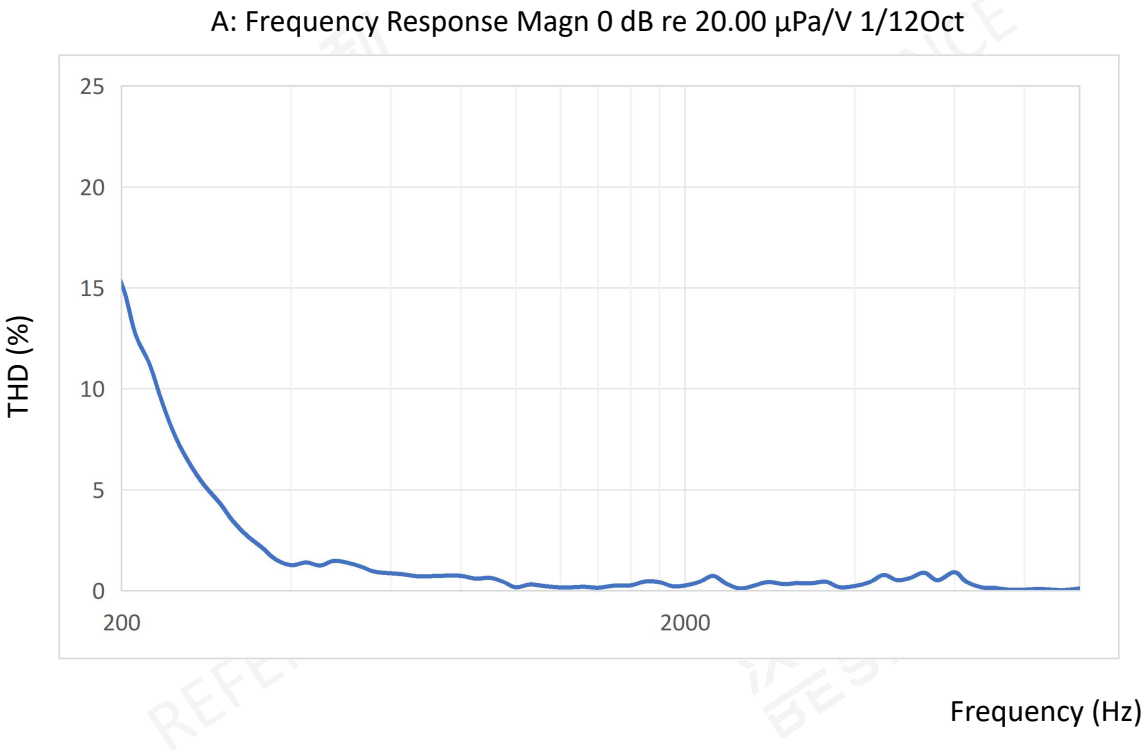


1.4.1 Resonance Frequency

Resonance frequency is measured according test set up in chapter 1.2 and parameters according chapter 1.4

Downloaded from Arrow.com.

1.5 Total Harmonic Distortion (only for reference)

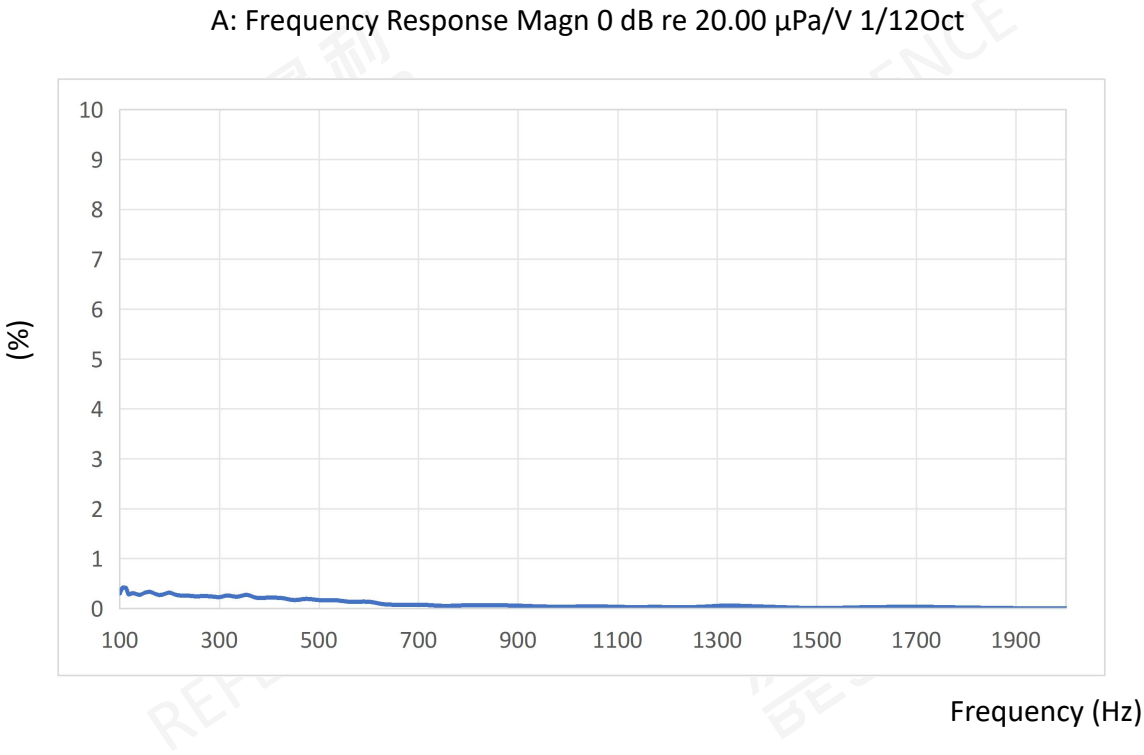


1.5.1 THD

THD is measured according test set up in chapter 1.2 and parameters according chapter 1.5

Downloaded from Arrow.com.

1.6 R&B Curve (only for reference)

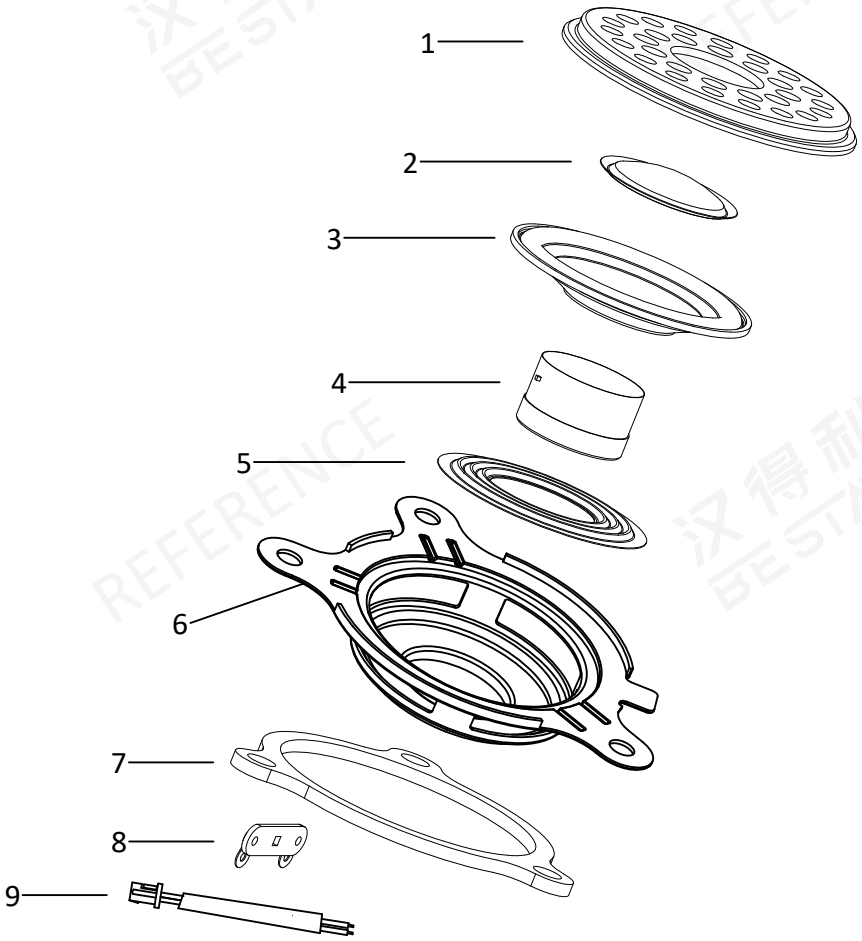


1.6.1 R&B

R&B is measured according test set up in chapter 1.2 and parameters according chapter 1.6

Downloaded from Arrow.com.

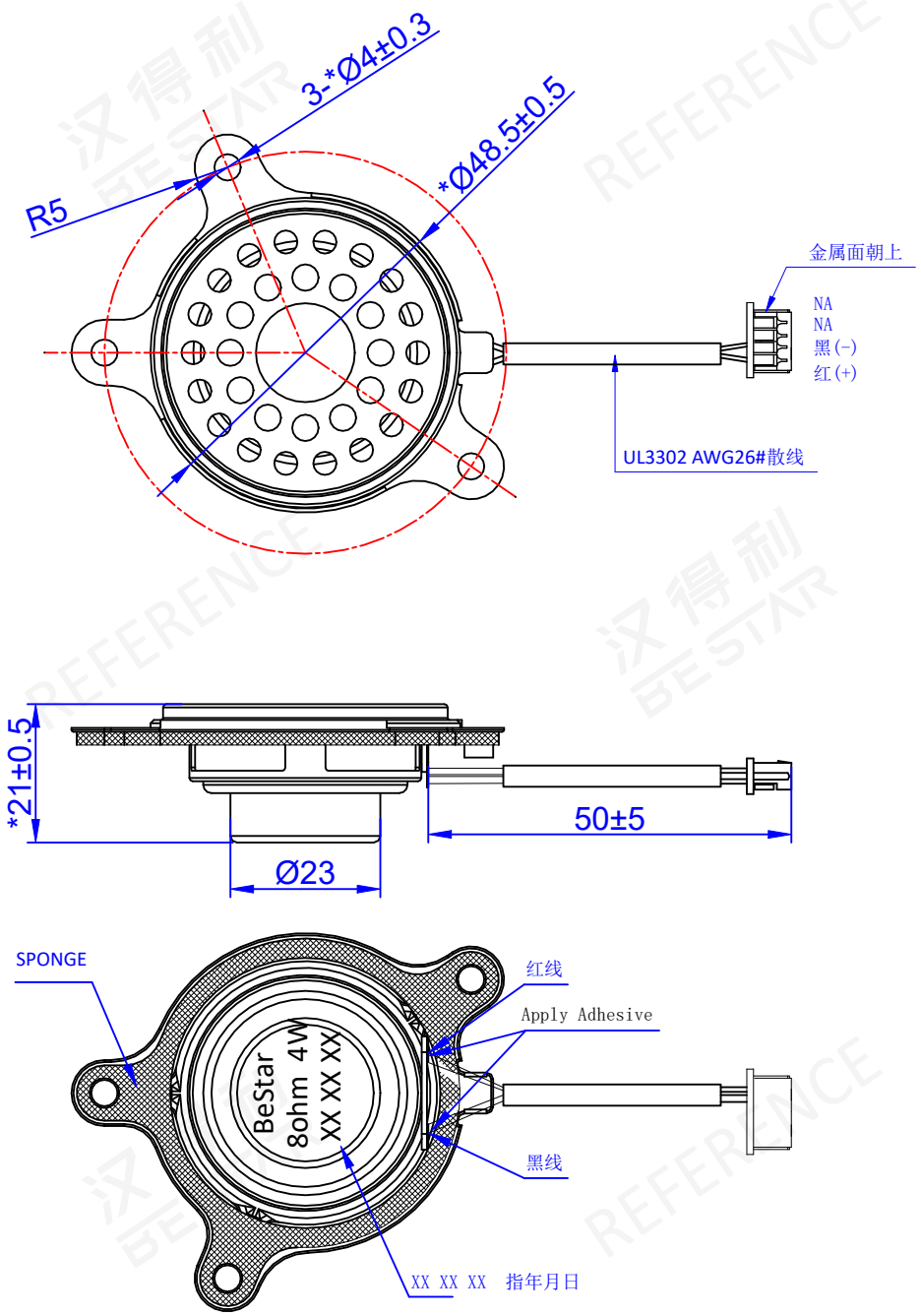
2.Part List



12.Yoke	SPCC
11.Magnet	NdFeB
10.Plate	SPCC
9.Connector wire	Cu
8.welded plate	SPCC+PAPER
7.Sponge	EPDM
6.Frame	SPCC
5.damper	CONEX
4.Voice coil	Cu
3.Diaphragm	Rubber+PAPER
2.Dust Cap	Mylar
1.Housing	PBT+30%GF

Downloaded from Arrow.com.

3. Dimension



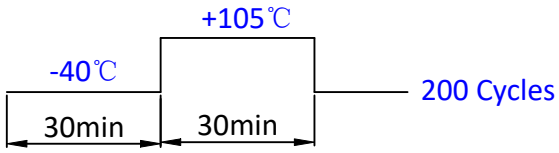
Tolerance:±0.5mm

Housing:11257H00-4P-L-XX
Terminal:11257T0P

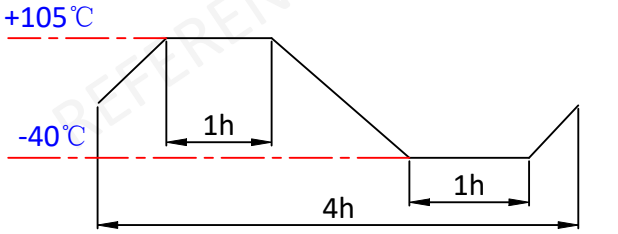
Downloaded from Arrow.com.

4. Reliability test

4.1High temperature preservation test
Logarithmic Sweep 5.64Vrms sine signal 300...3500Hz
Temperature +105°C
Duration 96hrs
4.2 Low temperature preservation test
Logarithmic Sweep 5.64Vrms sine signal 300...3500Hz
Temperature -40°C
Duration 96hrs
4.3 Thermal shock test



4.4 Life test
Temperature cycling



24 Cycles

Life test condition with symmetrical excitation
-Test signal alternation ON for 50sec./ OFF for 150sec
-Logarithmic Sweep 5.64Vrms sine signal 300...3500Hz,sweep time 50 seconds

4.5 Max input test
Room tenperature,sine wave input :300~3500Hz,
5W(6.32Vrms) 1min/on-2min/off,10cycles

4.6 Humidity test 40℃/93%Rh 96Hours

4.7 Vibration
10~55Hz:Amplitude ±0.75mm
1-oct./min,X,Y,Z 3 driections 24 hours each

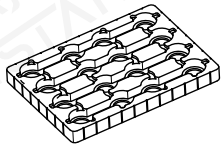
4.8 Free drop
Free drop on concrete 100cm height
Every 3surface x 1 time,Total 3times

Notice：
After the test the part shall meet specifications.Without any degradation In appearance and performance except SPL. SPL shall not deviate by ±3dB from pre-test measurement.

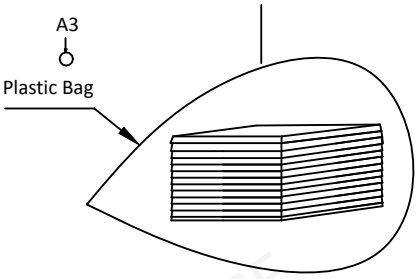
Downloaded from Arrow.com.

5. Packing

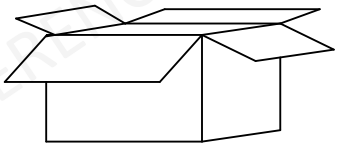
5.1 Packing drawing (unit:cm)



ESD packing

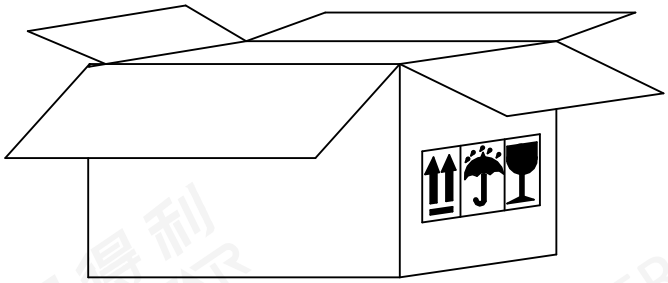


16 pcs per tray, 7 pcs trays, 1pcs cover
16x7=112pcs



112 pcs per inside box

112x2 inside box =224pcs



5.2 packing quantity

1) 16pcs per tray,
2) 112pcs tray per inside box
3) 2 inside box per carton,total:224pcs per carton
4) carton size: 54X38X19cm

Downloaded from Arrow.com.

6. History change record

Version	Change Items	Date	Drawn	Checked	Approved
A0	First Editio	2024.07.29	Grubby. Gao	Emma.Ren	Jason.Zhang
A1	Housing-2pin Change 4pin	2024.07.29	Grubby. Gao	Emma.Ren	Jason.Zhang
A2	Design Change for the Ear Shape of the Basin Frame	2024.10.17	Star.Liu	Grubby. Gao	Jason.Zhang
A3	Add Plastic Bag	2025.01.08	Star.Liu	Grubby. Gao	Jason.Zhang

Downloaded from Arrow.com.

7.Important Notice

7.1 The products mustn't be washed

7.2 Store Condition (packaging)

The products should be stored in the room ,where the temperature/humidity is stable. And avoid such places where there are large temperature changes. Please store the products at the following conditions:

Temperature: -40 to + 95 ℃ Humidity: 15 to 85% R.H.

7.3 Expire Date on Storage

Expire date (Shelf life) of the products is six months after delivered under the conditions of a sealed and an unopened package. Please use the products within six months after delivered.

If you store the products for a long time (more than six months), use carefully because the products may be degraded in the solderability and/or rusty.Please confirm solderability and characteristics for the products regularly.

7.4 Notice on Product Storage

(1) Please do not store the products in a chemical atmosphere (Acids, Alkali, Bases, Organic gas, Sulfides and so on), because the characteristics may be reduced at quality, and/or be degraded in the solderability due to the storage in a chemical atmosphere.

(2) Please use the products immediately after the package is opened, because the characteristics may be reduced at quality, and/or be degraded in the solderability due to storage under the poor condition.

7.5 Rated and Max input power

Rated input power

Rated input power is the maximum (limit) value which can be input to the component intentionally. If the actual input power to component keeps exceeding Rated Input power, it will damage the component acoustic performances and reliability. In the worst case, the component will get broken and no sound.

Max input power

Max input power is the maximum (limit) value for unexpected input power which is caused in the customer's circuit like surge voltage. If the actual input power to component keeps exceeding Maximum input power, it will break the component and cause no sound in a short time. Please note that component will have a risk to get broken if the unexpected input power continues.

The value of input power is set based on the sinusoidal power in the normal speaker use. If the special signal is input to component, the values of Rated and Max input power will be different. Please make a well-investigation at your laboratory in the case of the special signal input.

Downloaded from Arrow.com.