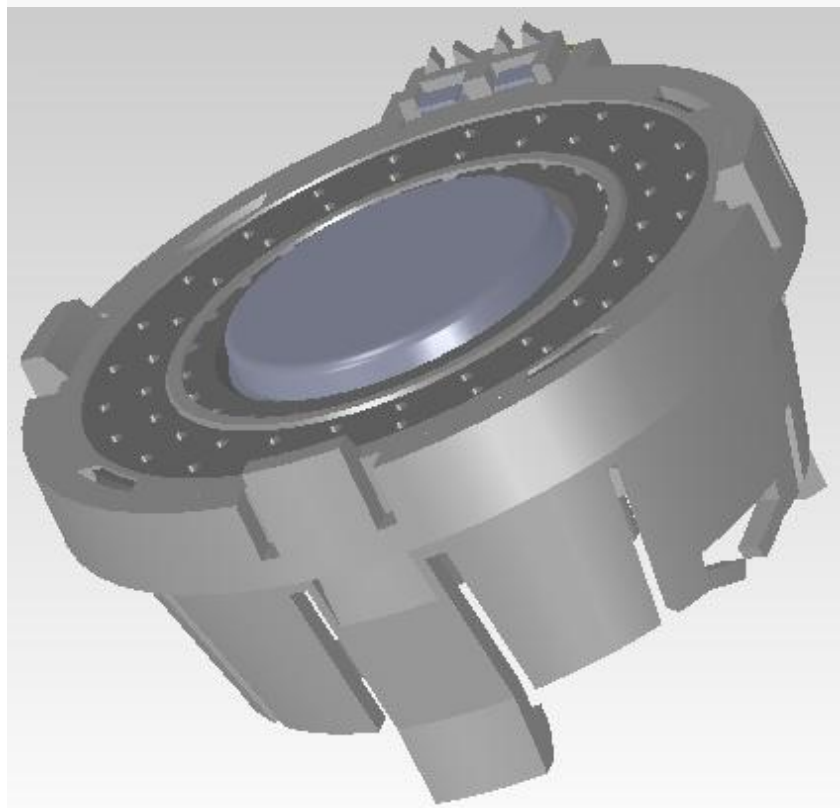
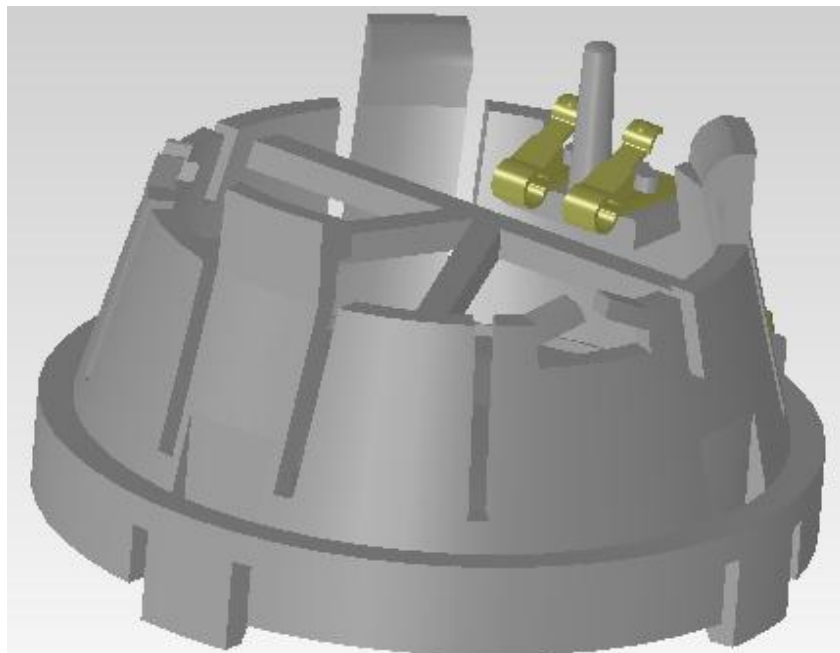


SPECIFICATION

BDT3745H16.5P LF





SPECIFICATION FOR AUTOMOTIVE SPEAKER

TOTAL PAGE

10

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RoHS

Customer		Model Name	BDT3745H16.5P LF
Customer P/N		Product No.	137702
Date	12 Dec.2016	Issue No.	BS/TES01.1075C
Page	01 of 10	Issue Date	2016/12/12

Approval:

- 1.Characteristics
- 2.Dimension
- 3.Bill of Material
- 4.Reliability Test
- 5.Packing
- 6.History Change Record

Drawn by	Checked by	Approved by	Customer approved
毛钰麒	莫丽丽	徐金国	

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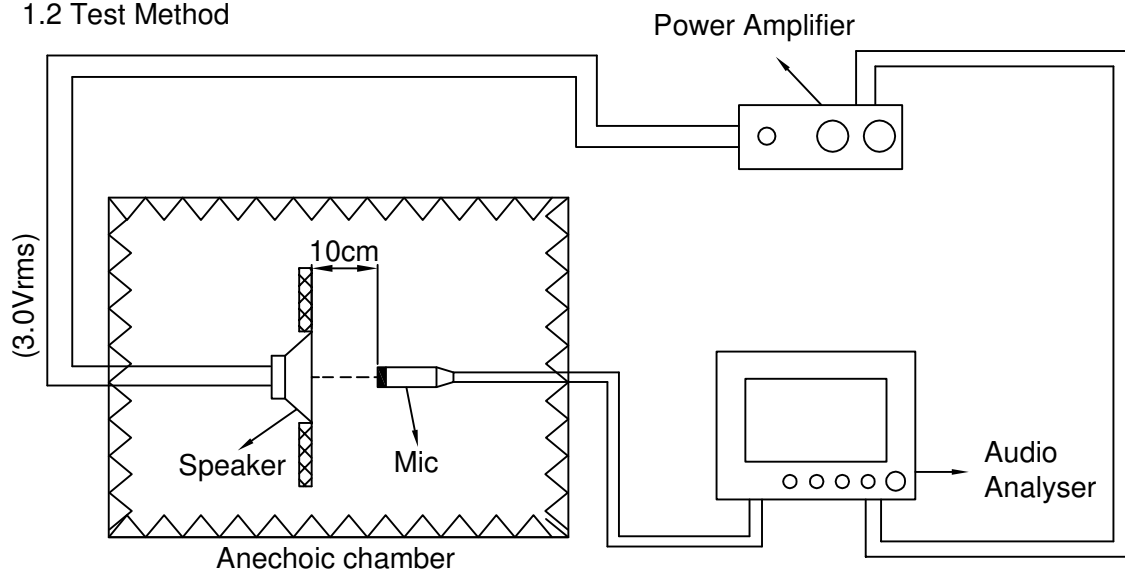
BDT3745H16.5P LF

1.Characteristics

1.1 Electrical and Mechanical Characteristics

No.	Item	Specification
1.	Dimension	∅37×16.5(mm)
2.	DC Resistance (at 20°C)	45 Ω ±6
3.	AC Impedance	50 Ω ±15%(at 1KHz)
4.	Rated Input Power	0.2W(3.0Vrms)
5.	Maximum Input Power	0.4W(4.24Vrms)
6.	Resonance Frequency	500Hz ±20%
7.	Frequency Response	200~8KHz
8.	S.P.L	Min86dB/0.1m/3.0V at 1.0KHz
9.	THD	≤5% (at 1KHz/3V,0.1m)
10.	Buzzes & Rattles	Must be normal at sine wave 3.0Vrms
11.	Polarity	Positive voltage to (+),Diaphragm moves forward
12.	Operating Temperature	-40~+ 105°C
13.	Storage Temperature	-40~+ 120°C
14.	Weight	~11g
15.	Spring Contact Force	Min 2.5N

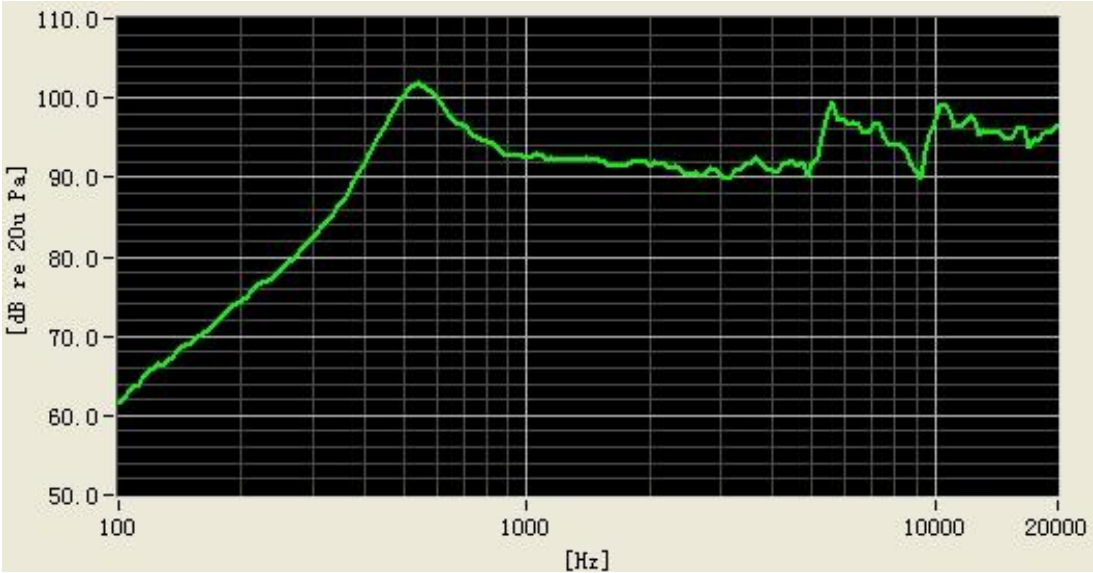
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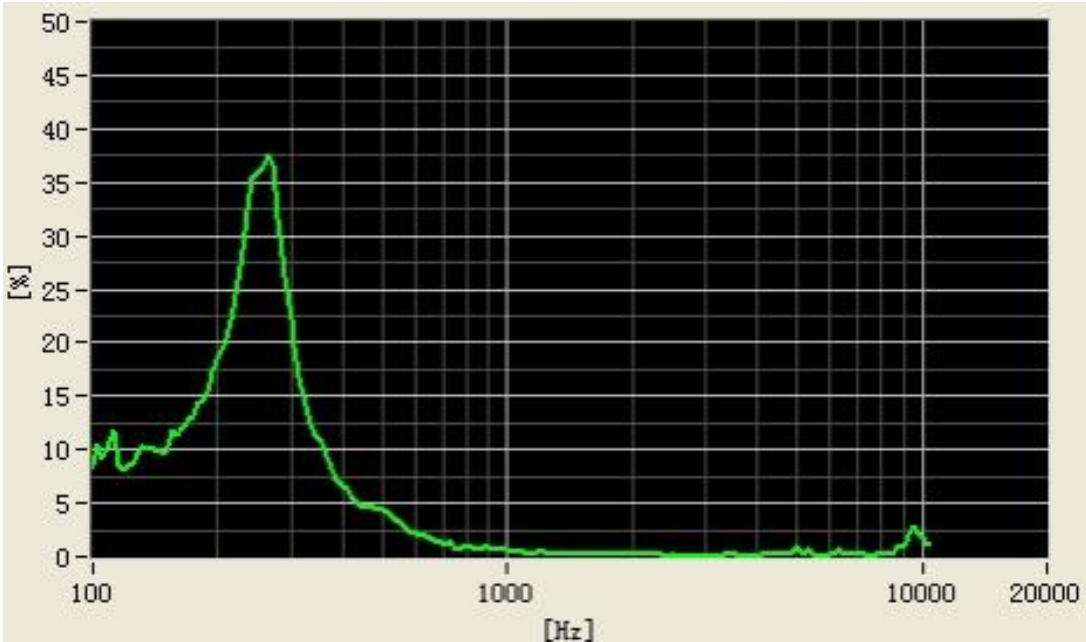
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BDT3745H16.5P LF

1.3 Frequency Response Curve (at sine wave 3v,0.1m,using SOUNDCHECK testing)



1.4 Total Harmonic Distortion Curve (at sine wave 3v,0.1m,using SOUNDCHECK testing)

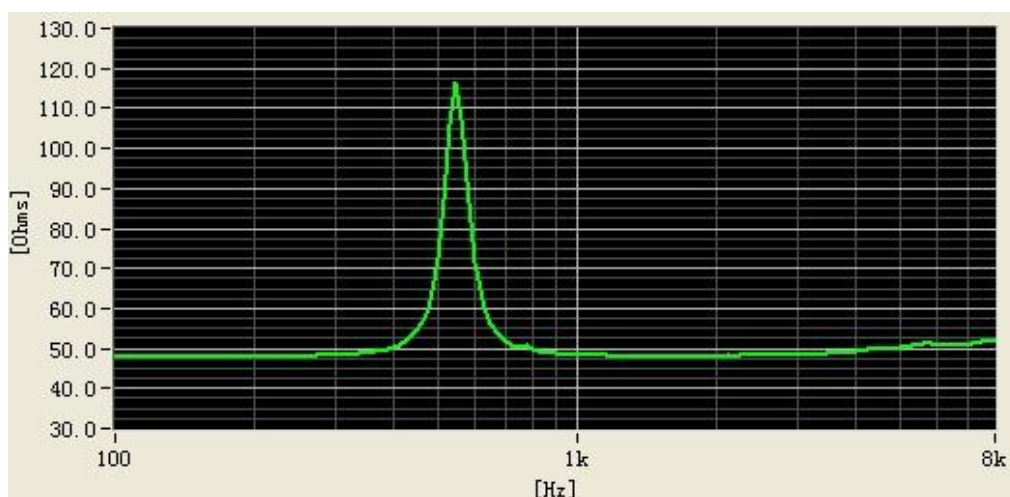


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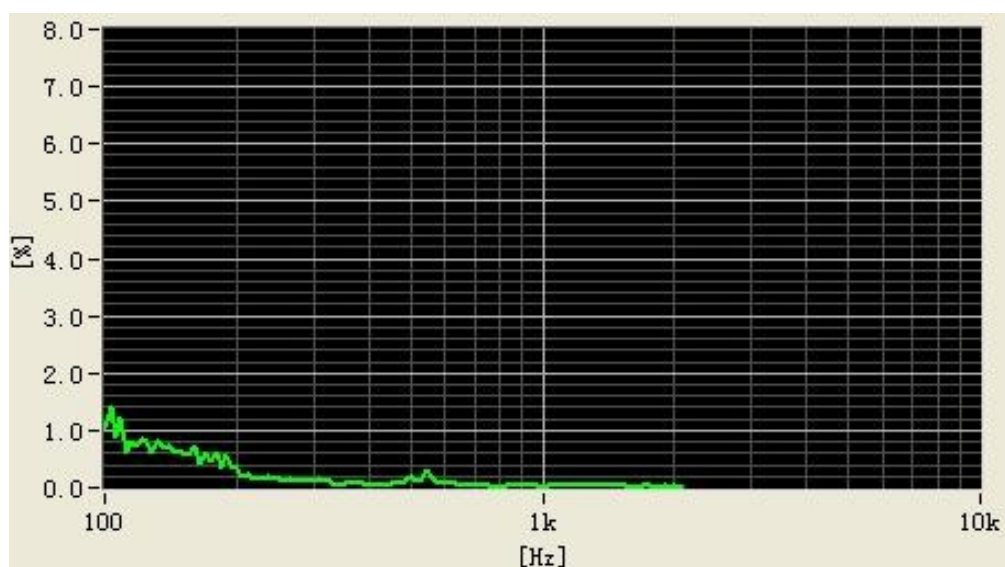
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BDT3745H16.5P LF

1.5 Impedance Curve (at sine wave 3v,0.1m,using SOUNDCHECK testing)



1.6 Buzzer&Rattle Curve(at sine wave 3v,0.1m,using SOUNDCHECK testing)

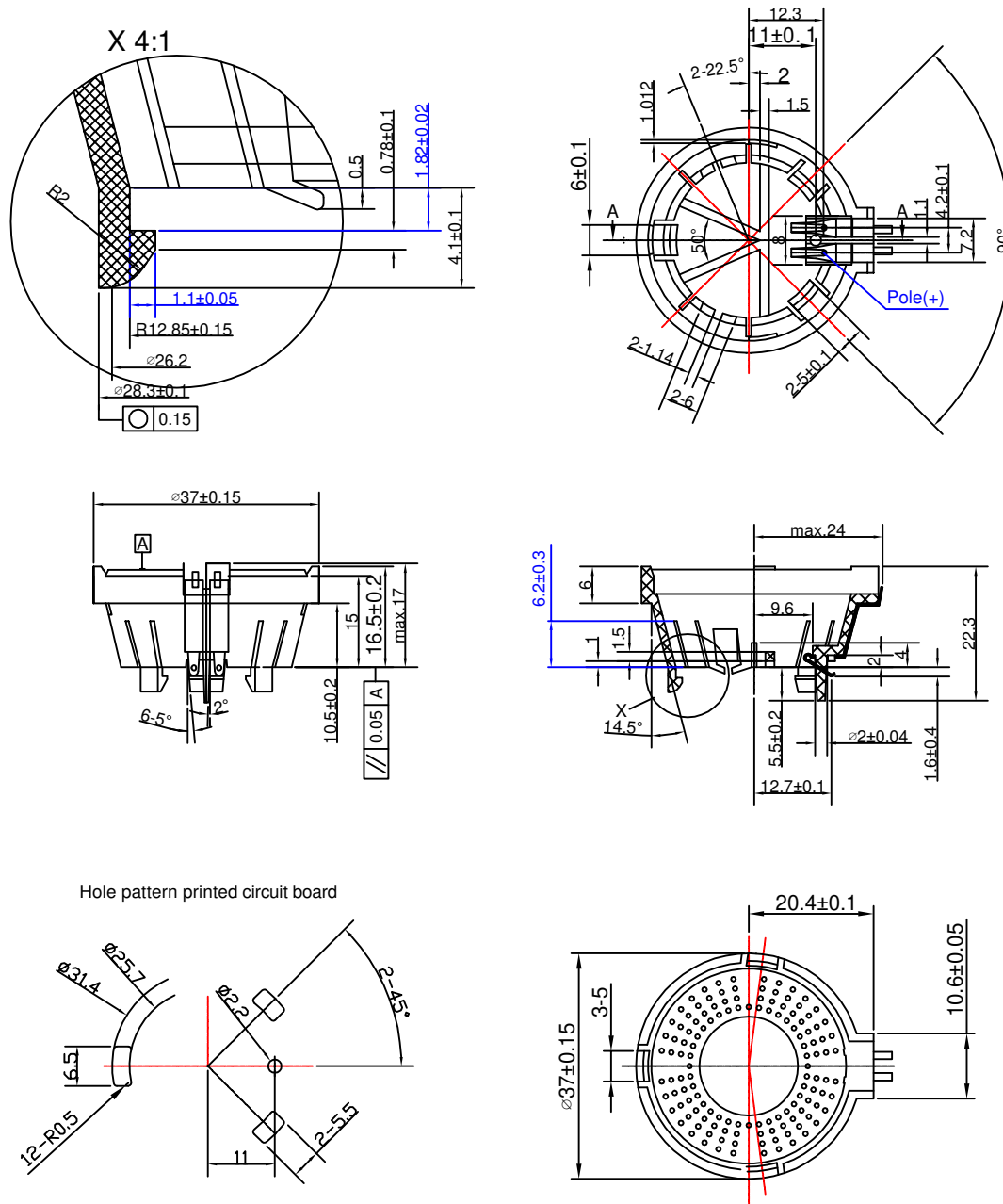


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BDT3745H16.5P LF

2.Dimension



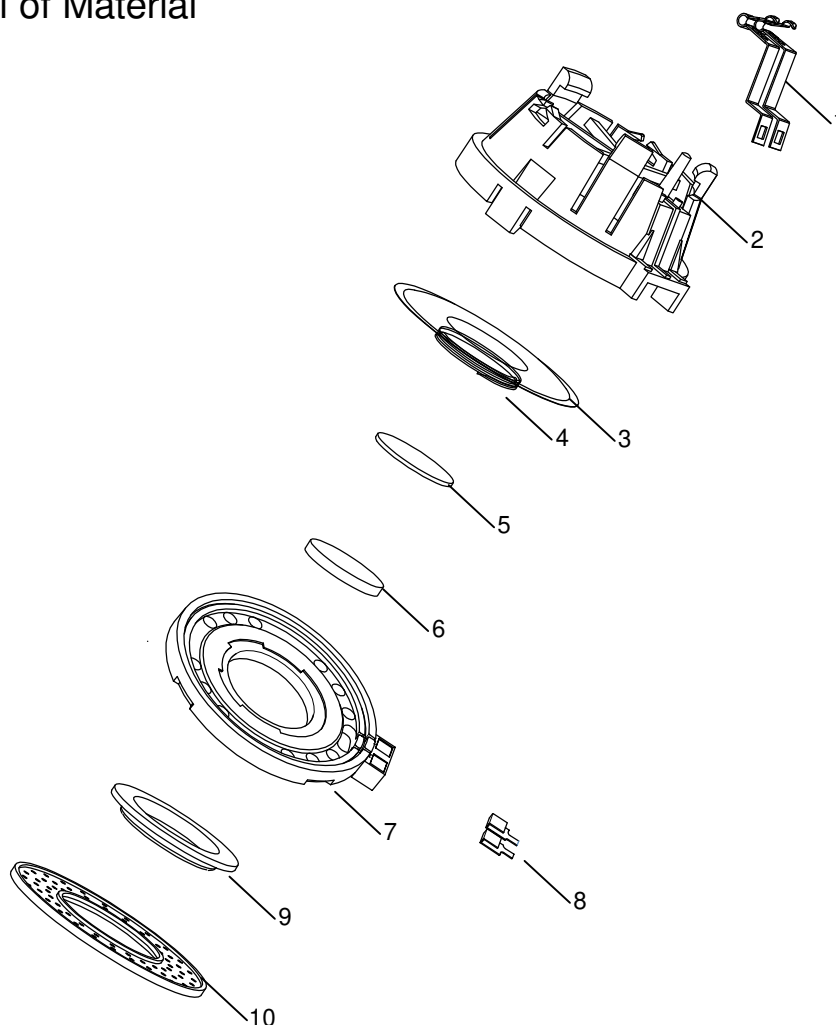
Hole pattern printed circuit board

Contact surface PCB: chemical NiAu, 4 μ m Ni / 0.1 μ m Au

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BDT3745H16.5P LF

3.Bill of Material



10	Cover	PC
9	magnet bowl	SPCC
8	Weld plate	Stainless steel
7	Frame	PC
6	Magnet	NdFeB
5	metal plate	SPCC
4	Voice Coil	∅0.05 Annealed Copper Alloy
3	Diaphragm	PEI
2	Housing	PC
1	Spring pin	Contact area plating gold
No	Parts Name	Material

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BDT3745H16.5P LF

4. Reliability Test

4.1 Load Test

Power (Nom)

Room temperature, 0.2W(440Hz sine wave)

Duration

1000hrs

4.2 High Temperature Life Test

Temperature

+105°C

Input

0.2W/440Hz

Duration

500hrs

4.3 Low Temperature Life Test

Temperature

-40°C

Input

0.2W/440Hz

Duration

500hrs

4.4 High Temperature Test

Temperature

+120°C

Duration

96hrs

4.5 Low Temperature Test

Temperature

-40°C

Duration

96hrs

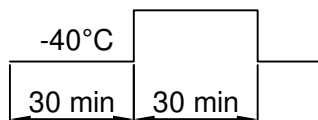
4.6 Thermal shock Test

Cycles

1000

+85°C

Condition



4.7 Max input test

Input

Room temp,0.4W/440Hz

Duration

1min/on-2min/off,10 cycles

4.8 Thermal,Humidity shock

t = 24 hours/cycle. Unpowered. one cycle:

- 1) 25°C — 65°C,90-98% RH,2.5h; 2) 65°C,90-98% RH,3h;
- 3)65°C — 25°C,80-98% RH,2.5h; 4)25°C — 65°C,90-98% RH,2.5h;
- 5)65°C , 90-98% RH,3h; 6)65°C — 25°C,80-98% RH,2.5h;
- 7)25°C,80-98% RH,2h;-10°C,3h 8)25°C,80-98% RH,3h; total 10 cycle.

Measurement at 24±2 hours after test conclusion.

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BDT3745H16.5P LF

4.9 Vibration Test

Vibration frequency

10-200-10Hz/sine wave

Amplitude

Sweep 15min/49m/s²

Duration

X,Y,Z 3Directin 2hrs each,Total 6hrs

4.10 Fixed Drop Test

Height

1.0m

Drop face

Fix onto standard Jig,drop on
concrete floor

Times

30 times

Exclude bending of Pin.

4.11 Free Drop Test

Height

1.0m

Times

Every 3 surfacke 1 time each,
total 3 times)

Exclude bending of Pin.

Notice:

- 1.All these tests above should be measured after leaving normal temperature for 2hrs.
- 2.After the test the part shall meet specifications without any degradation in appearance and performance except SPL.SPL shall be 83dB or more from initial value after test.

Date: 2016/12/12

BDT3745H16.5P LF

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Approved by: 徐金国

Speaker

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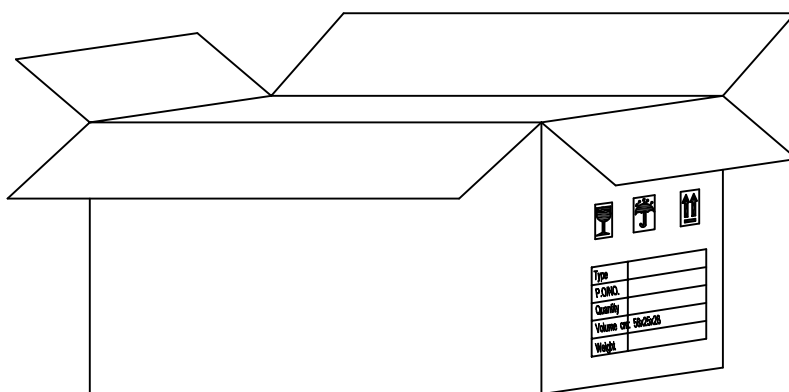
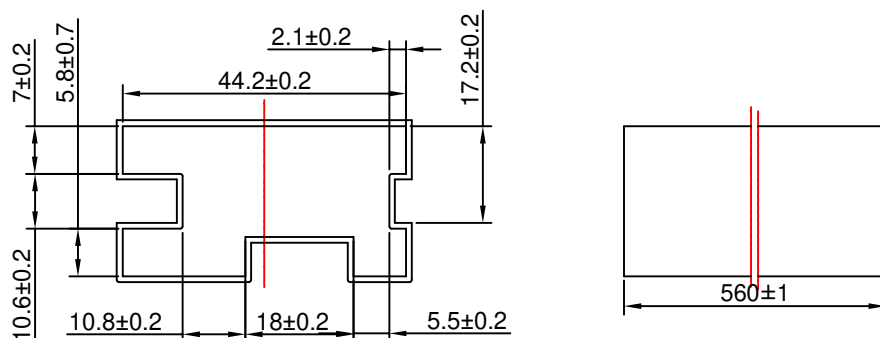
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BDT3745H16.5P LF

5. Packing

5.1 Packing Drawing



5.2 packing quantity

- 1) 14pcs per magazine
- 2) 50pcs magazine per carton
- 3) 700pcs per bubble plastic, 700pcs per carton
- 4) carton size: 58X26X29cm

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6. History Change Record

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