



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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MODEL: SP-5017
PRODUCT: Dynamic Speaker
EDITION: B/2017

THIS SPECIFICATION COVERS OUR PRODUCT OF DYNAMIC SPEAKER

SPEAKER ELECTROACOUSTIC CHARACTERISTICS

sound pressure level	90dB±3dB (0.1W/0.1m) at AVE 0.6KHz, 0.8KHz, 1.0KHz, 1.2KHz
frequency response curve	As shown in Fig.3
resonance frequency (F0)	500 ±20%Hz
rated noise power	0.25W
short-term max. power	0.5W
frequency range	F0~5.9KHz.
test setup	Measuring conditions and procedures shown in Fig 1 & Fig 2
AC impedance	8Ω ±15%
magnet	Rare earth permanent (Ferrite) magnet φ32x18x6mm
distortion	Less Than 5% @1KHz Input Rated Power
buzz, rattle, etc.	Not audible from F0 to 20KHz with 1.41V Sine Wave Input
polarity	When positive voltage is applied to the terminal marked (+), diaphragm should be moved to the front.
dimensions	ø50.0x17.0mm
weight	48g ±8%

GENERAL REQUIREMENTS

operating temperature range	-20°C ~ +70°C
storage temperature range	-30°C ~ +80°C
standard test conditions	
temperature	5°C ~ 35°C
relative humidity	45% ~ 85%(RH)
air pressure	860 mbar ~ 1060 mbar



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RELIABILITY TESTS

After these tests , the change of S.P.L will be within $\pm 3\text{dB}$

HIGH TEMPERATURE TEST

high temperature	+70°C \pm 3°C
duration	96 hours (leave 6 hours in normal temperature and then check)

LOW TEMPERATURE TEST

low temperature	-30°C \pm 3°C
duration	96 hours (leave 6 hours in normal temperature and then check)

HUMIDITY TEST

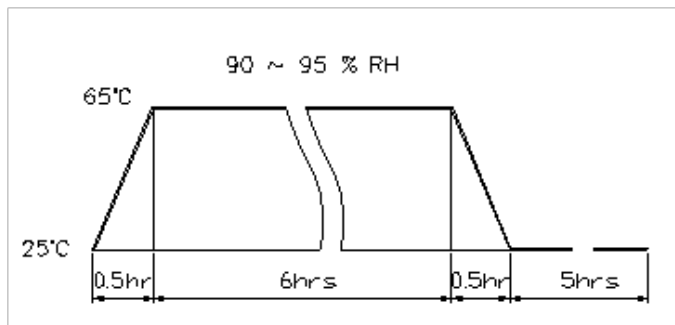
temperature	+30°C \pm 3°C
relative humidity	92%~95%
duration	96 hours

VIBRATION

10Hz ~55Hz ~10Hz sine-wave sweep 15 minutes 5G(constant)	
X, Y, Z	3 directions, 2 hours each, total 6 hours

TEMP./HUMIDITY CYCLE

The part will be subjected to 5 cycles. One cycle shall be 6 hours and consist of:



DROP TEST

Drop speakers contained in normal box onto the board 40mm thick 10 times from the height of 75 cm

LOAD TEST

Rated Power White noise is applied for 24 hours at room temp.

LEAD WIRE PULL STRENGTH

The pull force will be applied to double lead wire:

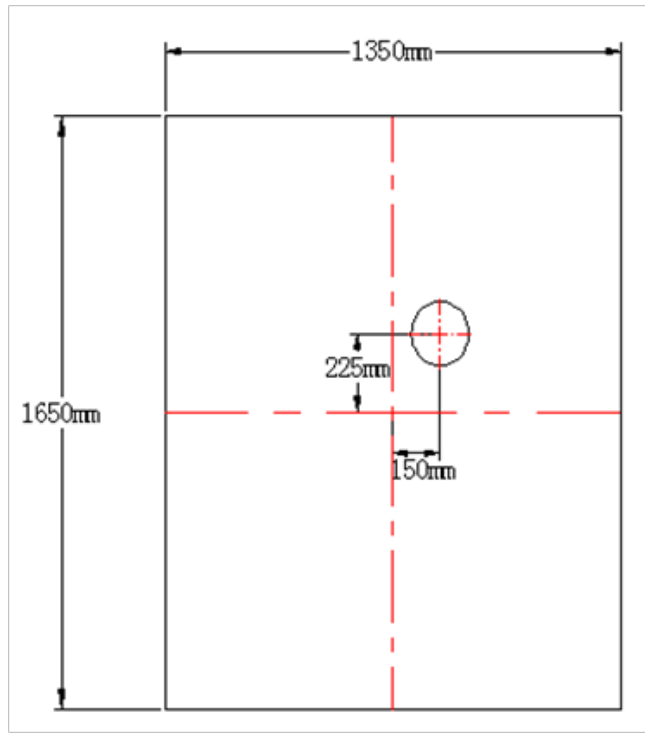
Horizontal 3.0N (0.306kg) for 30 seconds

Vertical 2.0N (0.204kg) for 30 seconds



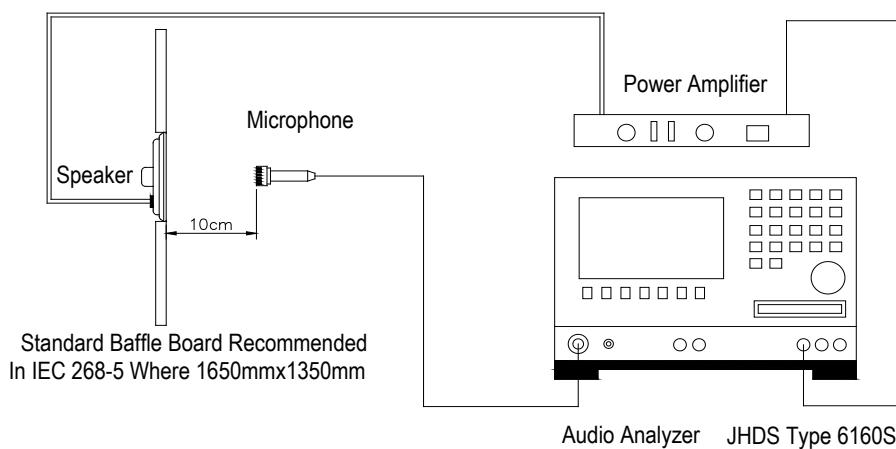
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MEASURING METHOD (SPEAKER MODE) (Fig. 1)



BLOCK DIAGRAM FOR MEASUREMENT METHOD (Fig. 2)

Standard test condition of speaker

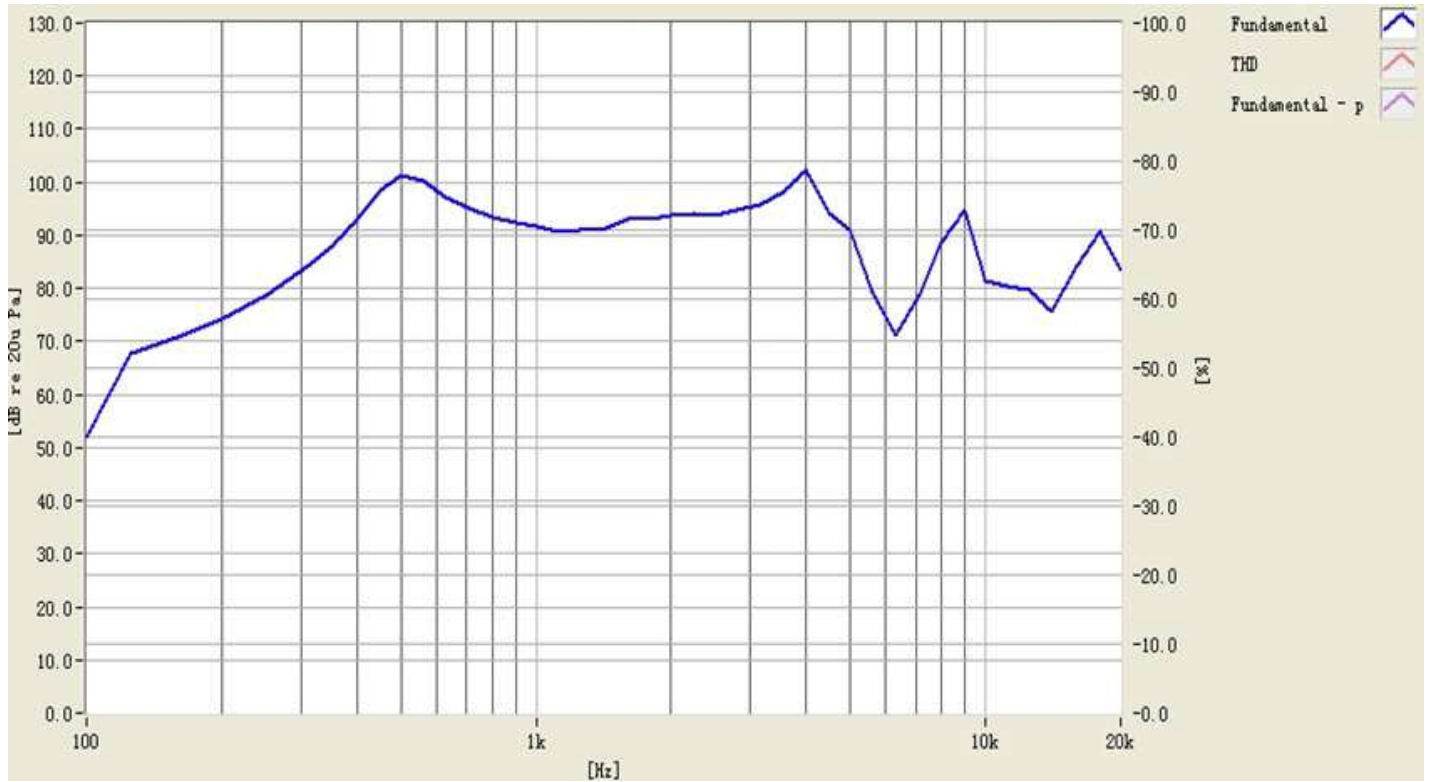




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FREQUENCY RESPONSE CURVE (Fig. 3)

The swept sine-wave frequency response of a loudspeaker should ideally not deviate more than indicated.

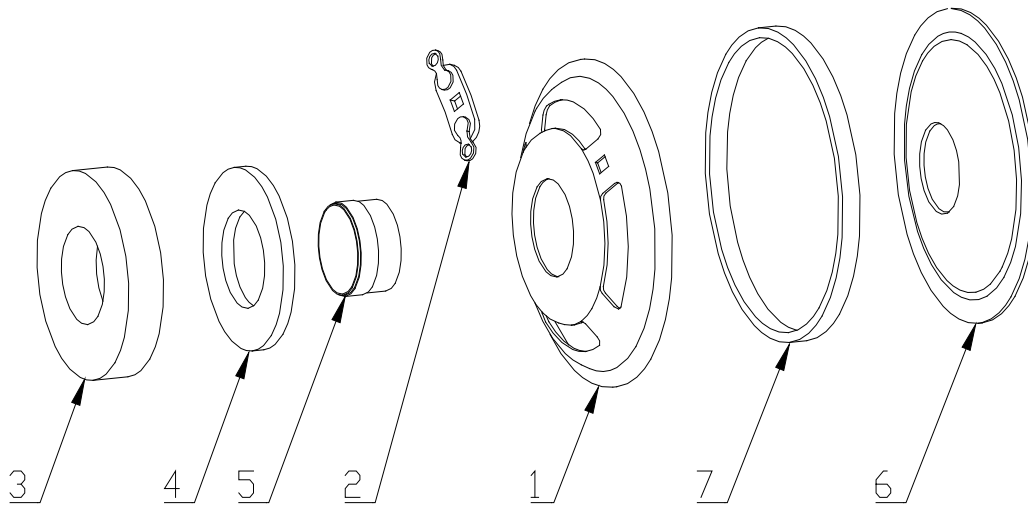
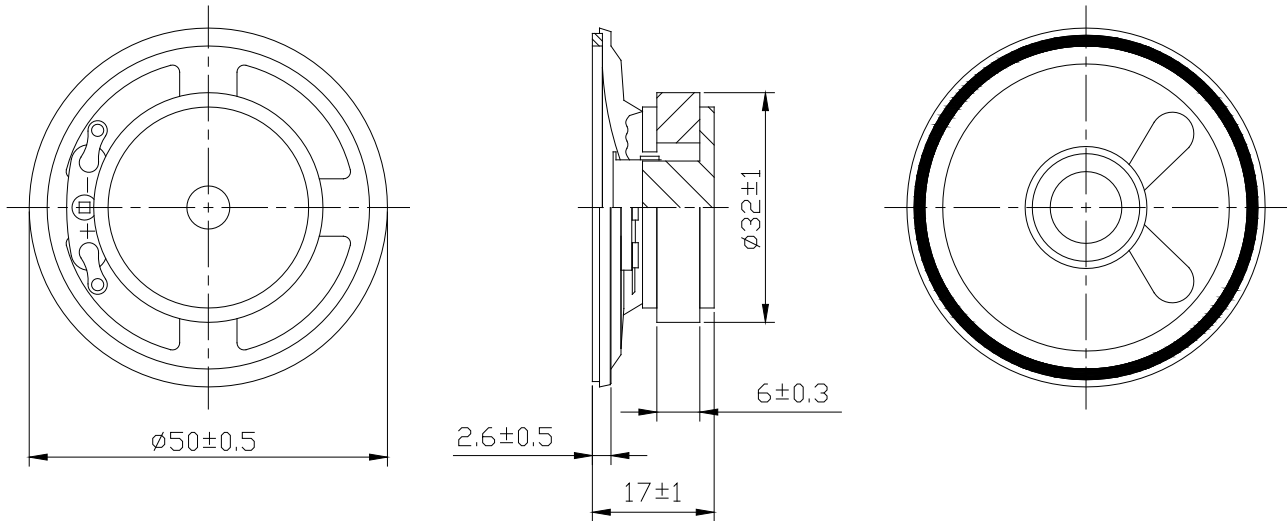




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DIMENSIONS

Tolerance: ± 0.5 unit: mm



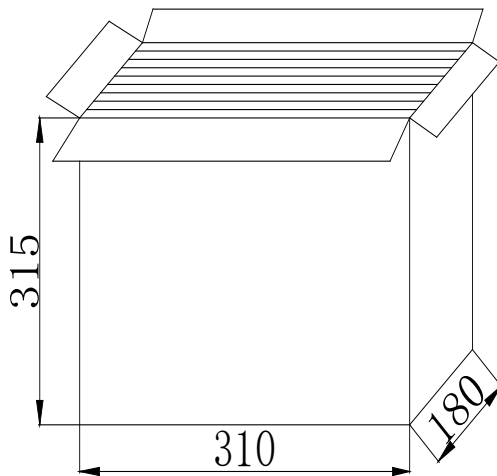
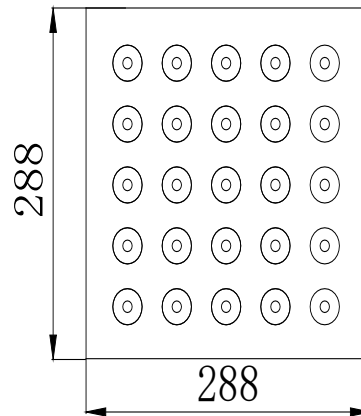
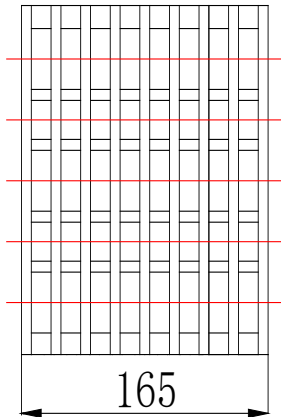
no	item	material	quantity
1	Frame	1	SPCC
2	PCB Terminal	1	Paper+meter
3	Magnet	1	Ferrite
4	Plate	1	SPCC
5	Voice Coil	1	Paper+Cu
6	Diaphragm	1	Paper
7	Gasket	1	Paper



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Soberton Inc.

PACKING



1. Each clap board 25pcs
Each carton 8 pcs clap board
200 pcs/carton
2. N.W: 10 KG, G.W:12KG
3. Corrugated paper: 290*290mm 1 PCS
4. Carton Size : 310*180*315mm 1 PCS