BeStar Technologies Inc.
Address: 761 N. 17th Street Unit 4, St. Charles, IL 60174
Tel : 847-261-2850 E-mail : sales@bestartech.com Web : www.bestartech.com

Document Number : 0607-47
Revision : A12
Total Pages : 4
Prepare by : Loki, **Lo**
Date : 20 May, 2019

SoniCrest Brand Acoustic Components
www.jlsonicrest.com
Document Type : Specification
Product Type : Speaker Sound Generator Component
Part Number : P00192

A7 - Updated format & layout by Leo Sin on 25 Jul., 2006	A11 - Updated electrical requiment by Leo Sin on 25 Oct., 2007	
A8 - Updated remark by Leo Sin on 9 Aug., 2006	A12 - Updated section 4 by Loki, Lo on 20 May, 2019	
A9 - Updated temperature range by Leo Sin on 22 Aug., 2006		
A10 - add marking by Leo Sin on 8 Dec., 2006		

1. Purpose and Scope

This document contains both general requirements, qualification requirements, and those specific electrical, mechanical requirements for this part.

2. Description

Ø30mm black mylar cone speaker sound generator, RoHS compliant.

3. Application

Telecommunication Equipment, Computers and Peripherals, etc.

4. Component Requirement

4.1. General Requirement

4.1.1.	Operating Temperature Range	: -20°C to +85°C
4.1.2.	Storage Temperature Range	: -20°C to +85°C

4.2. Electrical Requirement

4.2.1.	Coil Impedance	: 4 ± 15% Ω
4.2.2.	Coil Resistance	: 3.7 ± 15% Ω
4.2.3.	Rated Power	: 0.5W
4.2.4.	Maximum Input Power	: 1W
4.2.5.	Resonance Frequency	: 1000 ± 20% Hz
4.2.6.	Frequency Range	: 1000 ~ 6000 Hz
4.2.7.	Sound Pressure Level at 0.5W, 0.1m (1KHz)	: 105 ± 3 dB
4.2.8.	Total Harmonic Distortion at 1KHz, 0.5W	: <=5%

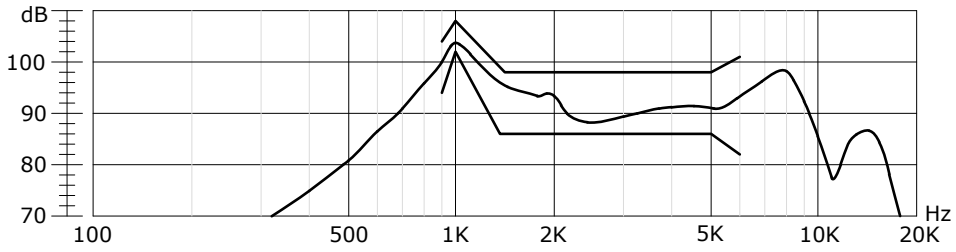


Figure 1. Typical Frequency Response

4.3. Mechanical Requirement

4.3.1.	Layout and Dimension	: See Section 6, Figure 3

4.4. Test Setup

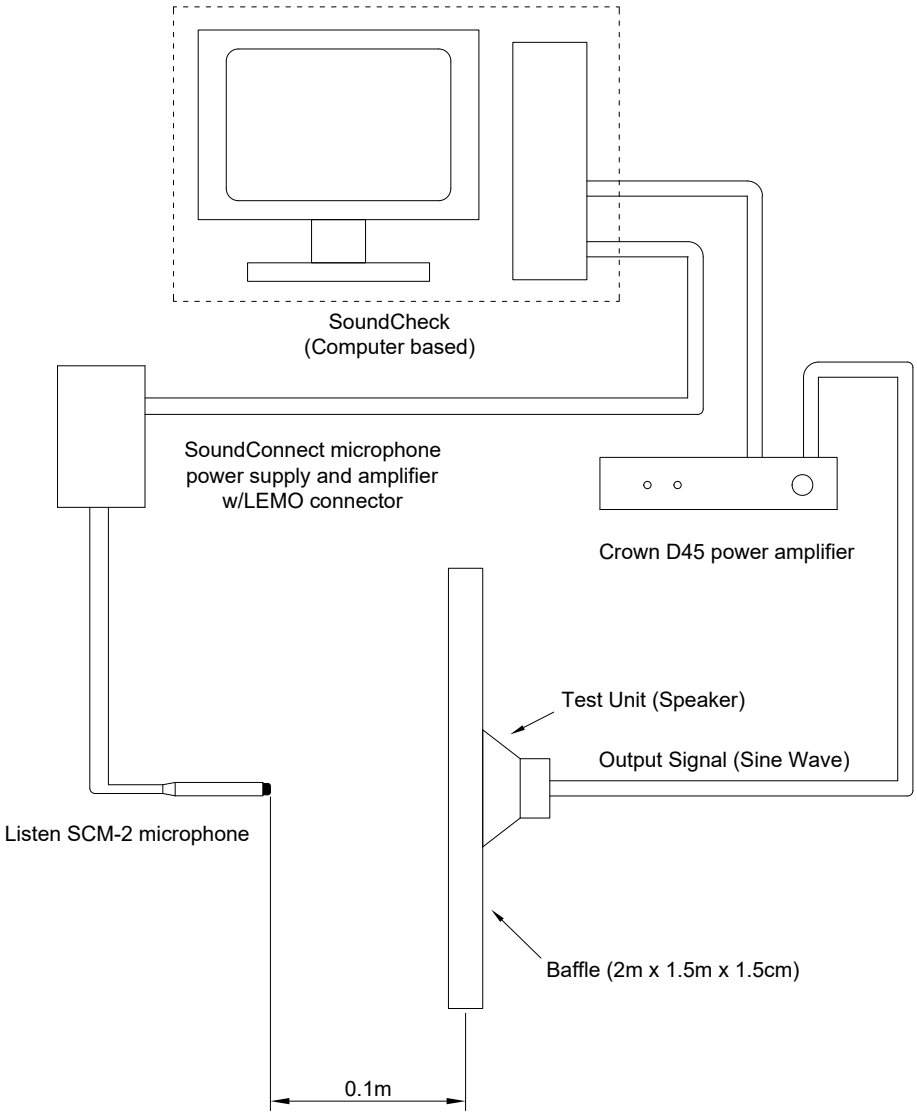


Figure 2. Test setup

Notes : Apply rated signal from Crown D45 Power Amplifier. Measure SPL with microphone 0.1m from the test unit with baffle (2m x 1.5m x 1.5cm). Microphone to be in accordance with Listen SCM-2 Microphone. The microphone should be calibrated on a daily basis using an acoustic calibrator recommended by the manufacturer. Measurement should be carried out in a free field environment.

5. Reliability Test

5.1. Operating Life : Subject samples to room condition for 96 hours under rated power.

5.2. High Temperature : Subject samples to +85°C for 96 hours. Components must be fully stabilized at temperature extremes before data is taken, which may require up to a 2 hours soak.

5.3. Low Temperature : Subject samples to -20°C for 96 hours. Components must be fully stabilized at temperature extremes before data is taken, which may require up to a 2 hours soak.

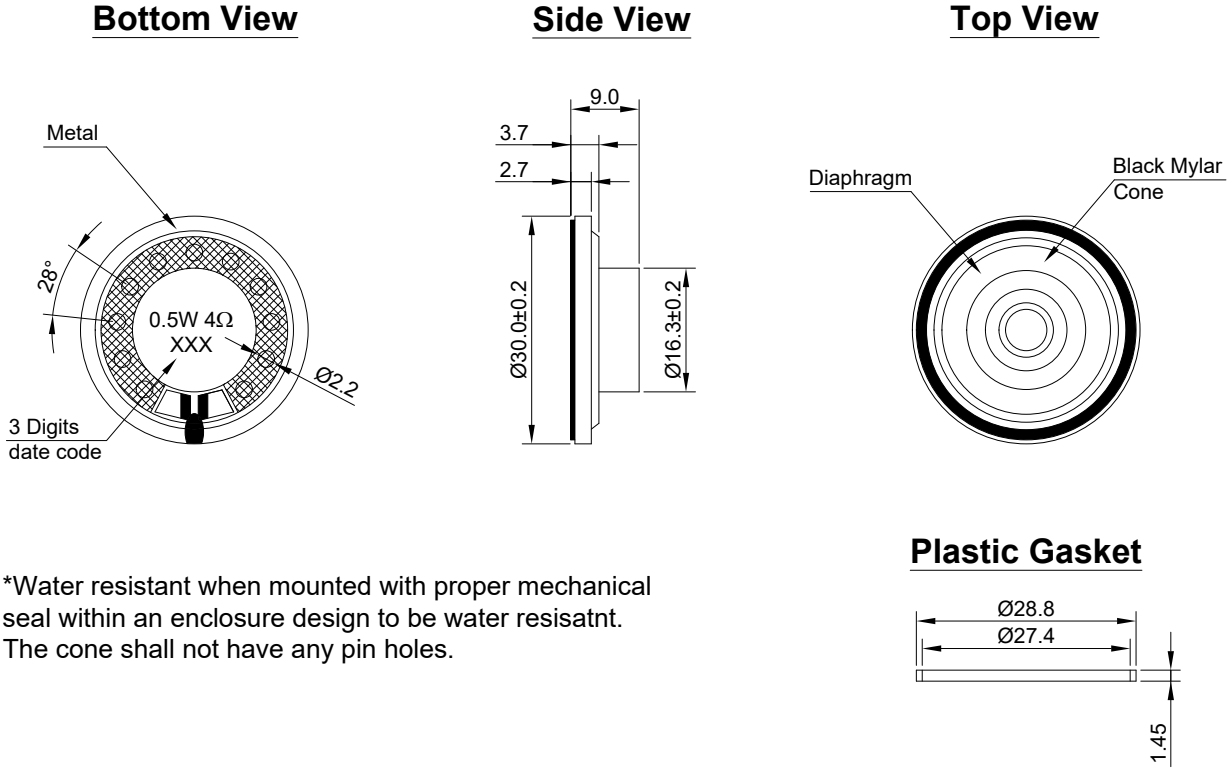
5.4. Temperature Shock : Each temperature cycle shall consist of 1 hour at +25°C, 1 hour at +85°C and 1 hour at -20°C. Test duration is for 4 cycles.

5.5. Static Humidity : Precondition at room temperature for 1 hour. Then expose to +40°C with 90 ~ 95% relative humidity for 96 hours. Finally dry at room ambient for 2 hours before taking final measurement.

5.6. Drop Test : Drop samples with package naturally from the height of 1m onto a wooden board 10 times.

6. Mechanical Layout

Unit : mm
Tolerance : Linear XX.X = ±0.3
XX.XX = ±0.05
Angular = ±0.25°
(unless otherwise specified)



*Water resistant when mounted with proper mechanical seal within an enclosure design to be water resisatnt. The cone shall not have any pin holes.

Figure 3. P00192 Mechanical Layout