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SoniCrest Brand Acoustic Components
www.jlsonicrest.com
Document Type : Specification
Product Type : Electro-magnetic Sound Generator Component
Part Number : HCM0603B

A1 - New issue created by Holmes, Poon on 12 Nov., 2009		

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1. Purpose and Scope

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

2. Description

Ø6.7mm electro-magnetic sound generator, RoHS compliant.

3. Application

Telecommunication Equipment, Computers and Peripherals, Portable Equipment, Automobile Electronics, POS System, etc.

4. Component Requirement

4.1 General Requirement

4.1.1.	Operating Temperature Range	: -20°C to +70°C
4.1.2.	Storage Temperature Range	: -30°C to +80°C
4.1.3.	Weight	: Approx. 1g
4.1.4.	Housing Material	: Noryl

4.2 Electrical Requirement

4.2.1.	Rated Voltage	: 3.6V
4.2.2.	Operating Voltage	: 2 ~ 5 V
4.2.3.	Rated Current	: <=80mA
4.2.4.	Coil Resistance	: 18 ± 2 Ω
4.2.5.	Rated Frequency	: 3200Hz
4.2.6.	Sound Pressure Level at 10cm (Applying rated voltage)	: >=72dB

4.3 Mechanical Requirement

4.3.1.	Layout and Dimension	: See Section 6, Figure 2

4.4 Test Setup

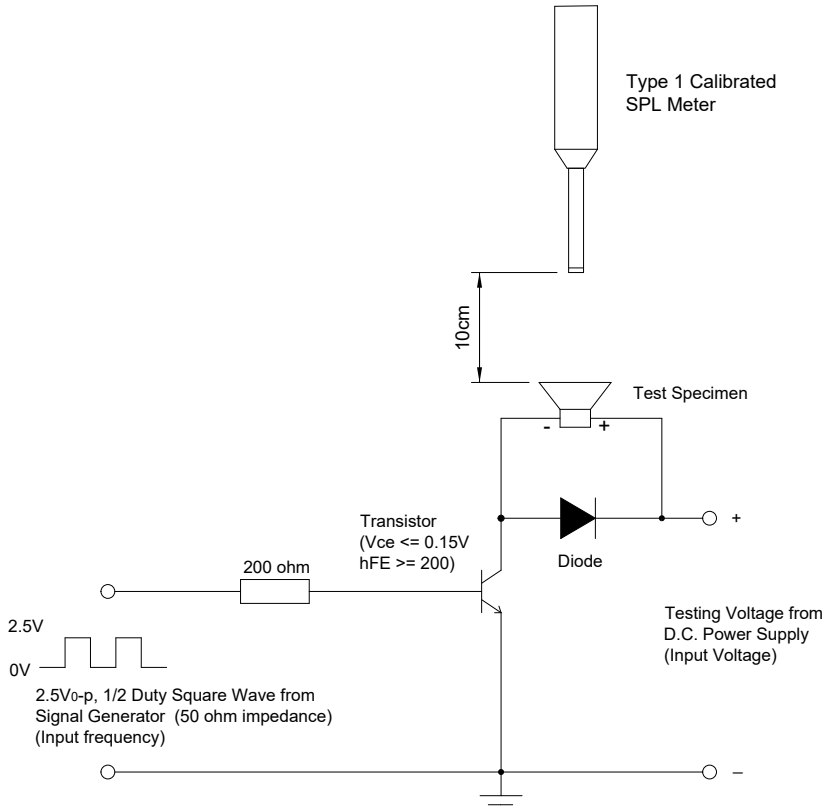

Figure 1. Test Setup

Notes : Apply 2.5Vo-p from Signal Generator, set 3200Hz from Signal Generator. Measure SPL using a calibrated SPL meter 10cm from the sound port. Sound level meter to be in accordance with IEC651 (1979) Type 1 and/or ANSI S1.4-1983. The meter must be checked on a daily basis using a calibrated acoustic calibrator recommended by the manufacturer. Measurement should be carried out in a free field environment or at least 40cm from any surface.

5. Reliability Test

5.1. High Temperature : Subject samples to +70 ± 3 °C and operate for 96 hours. Components must be fully stabilized at temperature extremes before data is taken, which may require up to a 2 hours soak.

5.2. Low Temperature : Subject samples to -20 ± 3 °C and operate 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. 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.

6. Mechanical Layout

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

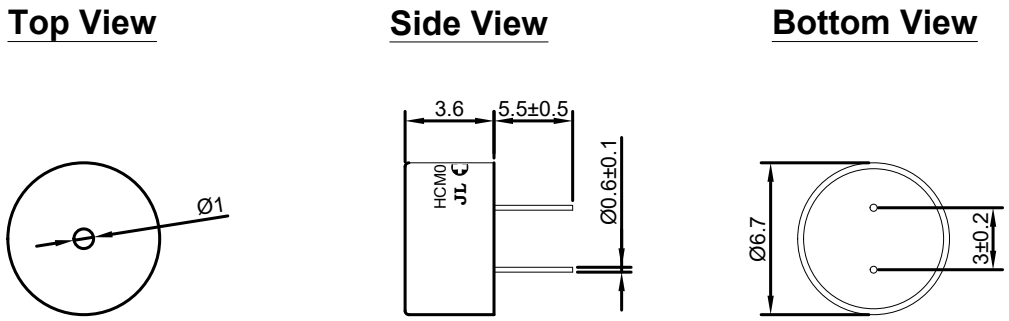

Figure 2. HCM0603B Mechanical Layout