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SoniCrest Brand Acoustic Components

www.jlsonicrest.com

Document Type : Specification
Product Type : Electro-magnetic Sound Generator Component
Part Number : HCM2506A

A2 - Updated format and layout by Loki, Lo on 16 Jul., 2013		

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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

Ø25mm 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	: -30°C to +70°C
4.1.2.	Storage Temperature Range	: -40°C to +85°C
4.1.3.	Weight	: Approx. 10g
4.1.4.	Housing Material	: Noryl

4.2. Electrical Requirement

4.2.1.	Rated Voltage	: 6V
4.2.2.	Operating Voltage	: 3 ~ 8 V
4.2.3.	Rated Current	: <=100mA
4.2.4.	Coil Impedance	: $27 \pm 3 \Omega$
4.2.5.	Rated Frequency	: 730Hz
4.2.6.	Sound Pressure Level at 10cm (Applying rated voltage)	: >=85dB

4.3. Mechanical Requirement

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

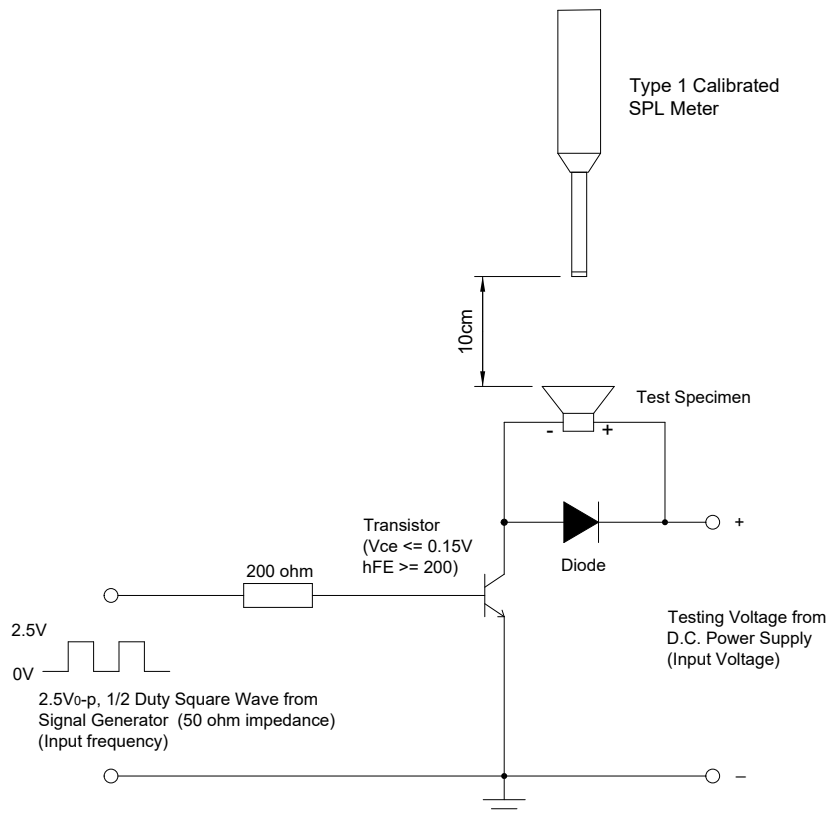


Figure 1. Test Setup

Notes : Apply rated voltage from DC power supply, set rated frequency 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. Operating Life :** Subject samples to room condition for 96 hours under rated voltage.
- 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 -40°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. Static Humidity :** Precondition at +25°C for 1 hour. Then expose to +40°C with 90% to 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 = $\pm 0.25^\circ$
 (unless otherwise specified)

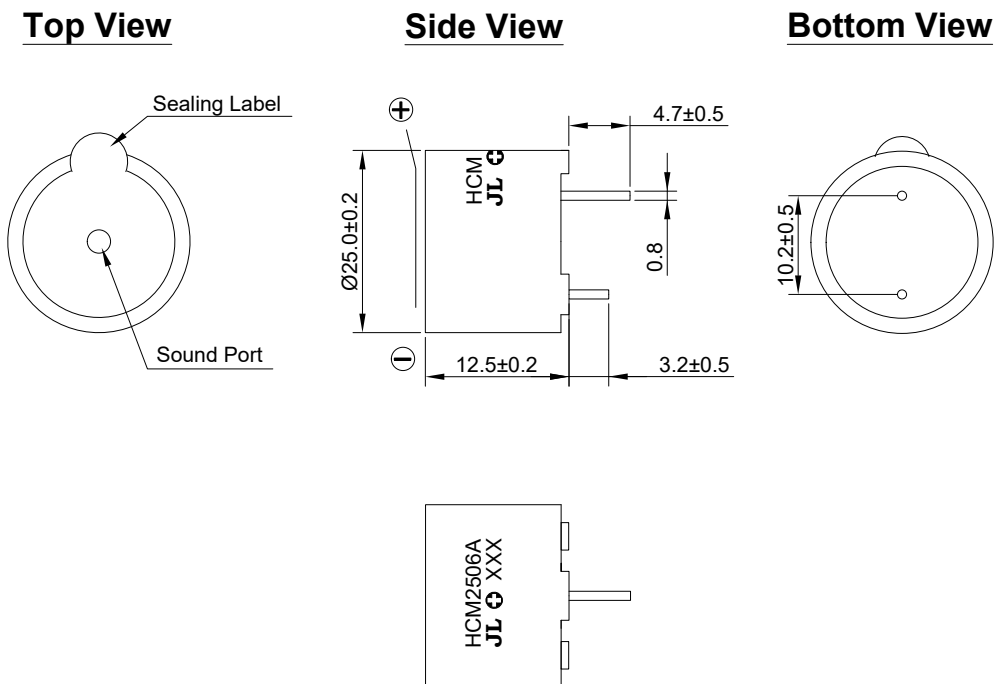


Figure 2. HCM2506A Mechanical Layout