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SoniCrest Brand Acoustic Components

www.jlsonicrest.com

Document Type : Specification
Product Type : Electro-magnetic Sound Generator Component
Part Number : HCM1206BX

A4 - Updated format and layout by Ting Lok, Ngan on 31 Oct., 2012		
A5 - Added section 7 by Loki, Lo on 7 Jan., 2014		

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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

Ø12mm electro-magnetic sound generator with built-in oscillation circuit, 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	: -40°C to +85°C
4.1.2. Storage Temperature Range	: -40°C to +85°C
4.1.3. Housing Material	: Noryl SE1-GFN2
4.1.4. Weight	: Approx. 2g

4.2. Electrical Requirement

4.2.1. Rated Voltage	: 6VDC
4.2.2. Operating Voltage	: 4 ~ 7 VDC
4.2.3. Rated Current	: <=30mA
4.2.4. Generated Frequency	: 2300 ± 400 Hz
4.2.5. Sound Pressure Level at 10cm (Applying rated voltage)	: >=83dB

4.3. Mechanical Requirement

4.3.1. Layout and Dimension	: See Section 6, Figure 3
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4.4. Test Setup of SPL and Frequency Measurement

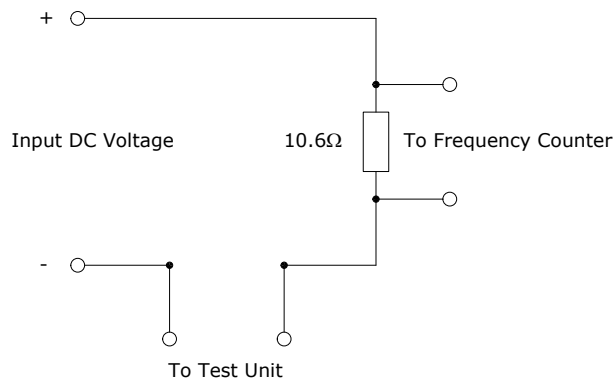


Figure 1. Frequency Testing Circuit

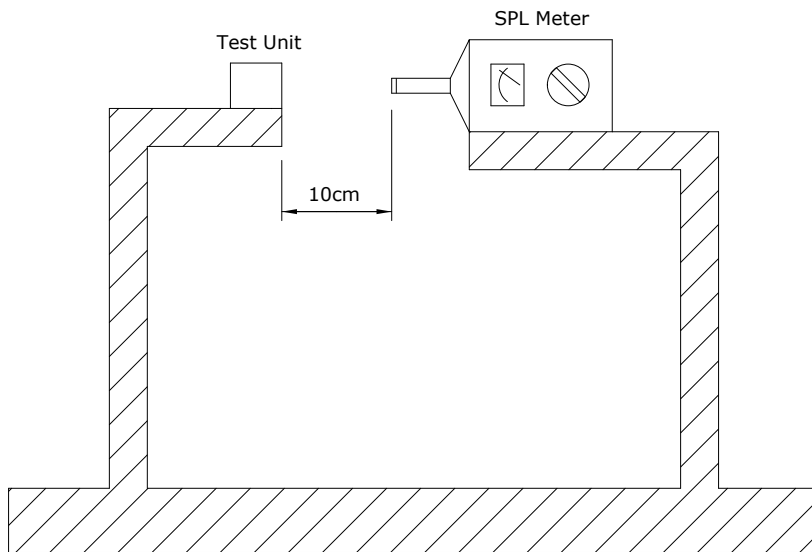


Figure 2. SPL Inspection Test Setup

Notes : Input 6V DC into samples. Measure SPL using a calibrated SPL meter 10cm from the alert 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. Components must be fully stabilized before data is taken, which may require up to a 2 hours soak.
- 5.2. High Temperature** : Subject samples to $+85 \pm 3 \text{ }^\circ\text{C}$ 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. Low Temperature** : Subject samples to $-40 \pm 3 \text{ }^\circ\text{C}$ 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.
- 5.4. Static Humidity** : Precondition at room temperature for 1 hour. Then expose to $+40^\circ\text{C}$ 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)

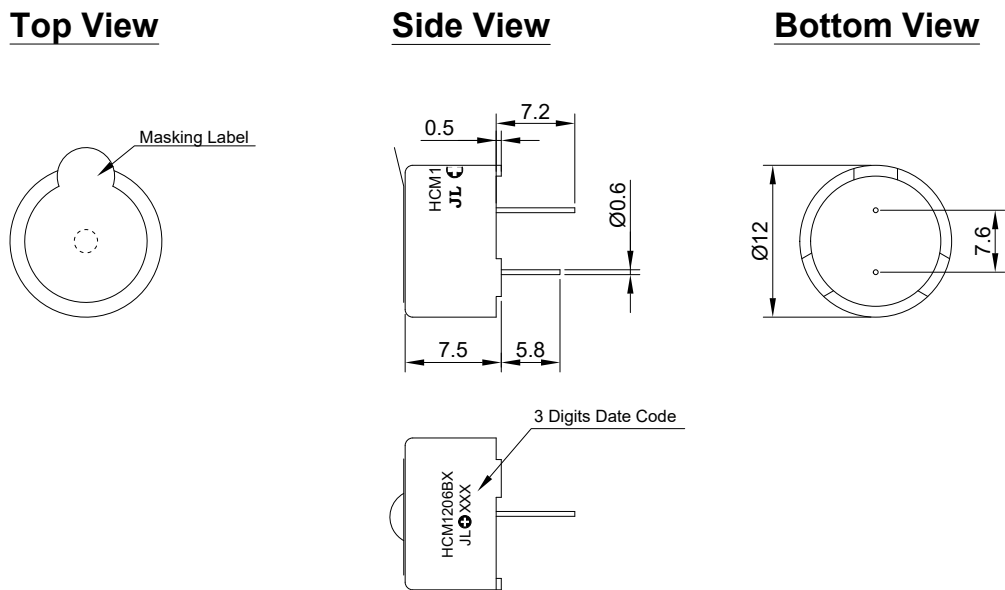


Figure 3. HCM1206BX Mechanical Layout

7. Standard Packing Requirements

7.1. Packing Quantity : 100 pieces per tray 10 trays per unit, 5 units per carton
(Total 5000 pieces)

7.2. Carton Layout

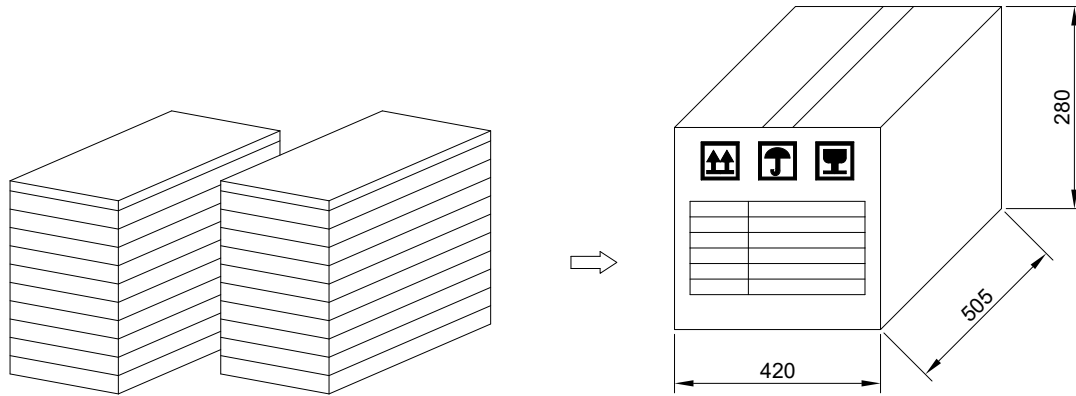


Figure 4. Tray and Carton Layout