

Electromagnetic Buzzer

1. Scope

This specification is applied to Magnetic Buzzer (Self-Drive Type)

The product described below is used as a buzzer in various alarm systems

2. Basic Condition

2.1 Rated Voltage:12VDC

2.2 Operating Voltage:8~16VDC

2.3 Operating Temperature Range:-20 °C~+70 °C

2.4 Storage Temperature Range:-30°C~+80 °C



3. Electrical Characteristics

3.1 Sound Press Level:Level: ≥ 85 dB at 10cm / 12VDC

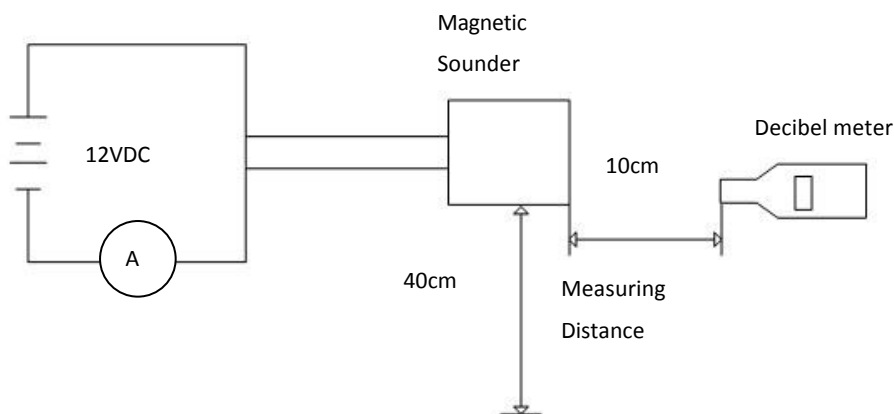
3.2 Consumption Current: ≤ 30 mA at 12VDC

3.3 Resonate Frequency:2300Hz \pm 500Hz

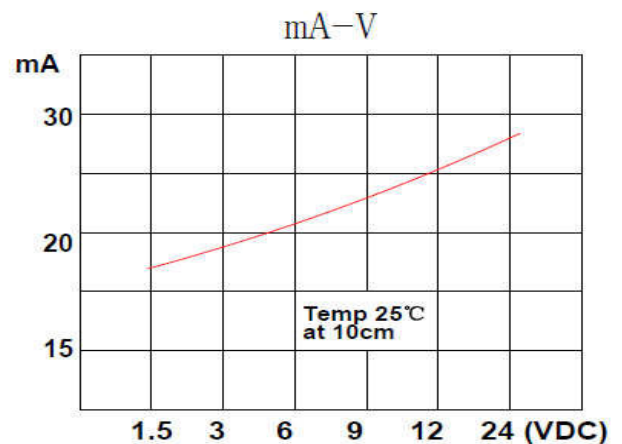
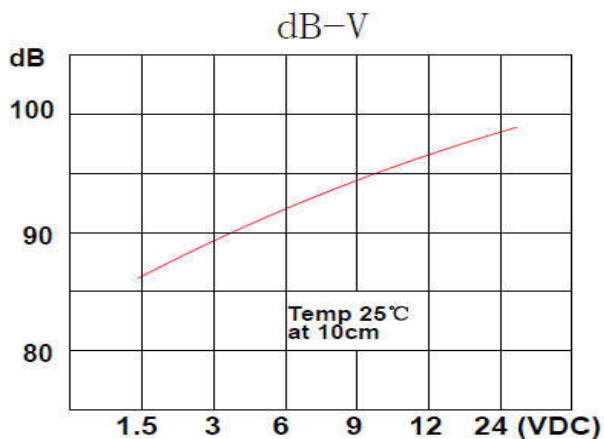
3.4 Tone Nature:Continuous Sound

3.5 Material:PBT

4. Measuring Method



5. Sound Press Level & Consumption Current Curve



TEST REPORT

#	dB	mA	Hz	#	dB	mA	Hz
1	99.4	22.5	2514	1	93.2	22.5	2514
2	99.8	22.9	2416	2	94.4	22.9	2416
3	99.3	21.9	2507	3	93.4	21.9	2507
4	99.6	22.5	2577	4	91.5	22.5	2577
5	99.3	22.2	2439	5	91.3	22.2	2439
6	99.4	21.6	2531	6	93.6	21.6	2531
7	99.8	22.1	2480	7	92.2	22.1	2480
8	99.4	22.3	2466	8	92.6	22.3	2466
9	99.2	22.0	2387	9	93.7	22.0	2387
10	99.0	23.0	2316	10	91.8	23.0	2316

SPL at 10cm 12VDC

SPL at 30cm 12VDC

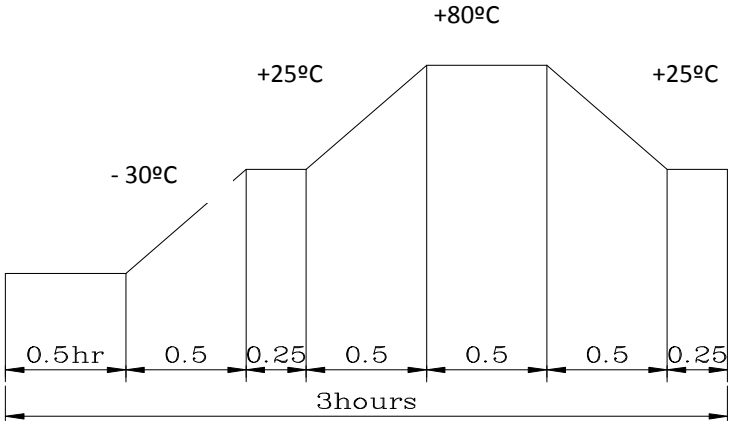
Remark:

(1)Sound Press Level : ≥ 85 dB at 10cm / 12VDC

(2)Consumption Current : ≤ 30 mA at 12VDC

(3)Resonate Frequency : 2300Hz \pm 500

6. Environment Test Method

NO.	ITEM	TEST CONDITION AND REQUIREMENT
1	High Temperature Test (Storage)	After being placed in a chamber with $80\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$.
2	Low Temperature Test (Storage)	After being Placed in a chamber with $-30\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$.
3	Humidity Test	After being Placed in a chamber with 90-95% R.H. at $40\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in normal condition for 2 hours. Allowable variation of SPL after test: $\pm 10\text{dB}$.
4	Temperature Cycle Test	<p>The part shall be subjected to 5 cycles. One cycle shall be consist of:</p>  <p>The diagram shows a temperature cycle profile over a 3-hour period. It starts with a 0.5-hour dwell at -30°C. This is followed by a 0.5-hour ramp up to $+25^{\circ}\text{C}$, a 0.25-hour dwell at $+25^{\circ}\text{C}$, a 0.5-hour ramp up to $+80^{\circ}\text{C}$, a 0.5-hour dwell at $+80^{\circ}\text{C}$, a 0.5-hour ramp down to $+25^{\circ}\text{C}$, and finally a 0.25-hour dwell at $+25^{\circ}\text{C}$. The total duration of one cycle is 3 hours.</p> <p>Allowable variation of SPL after test: $\pm 10\text{dB}$.</p>
5	Drop Test	Drop on a hard wood board of 4cm thick, any directions ,6 times, at the height of 100cm. Allowable variation of SPL after test: $\pm 10\text{dB}$.
6	Vibration Test	After being applied vibration of amplitude of 1.5mm with 10 to 55 Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours . Allowable variation of SPL after test: $\pm 10\text{dB}$.
7	Solder ability Test	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+300\pm 5^{\circ}\text{C}$ for 3 ± 1 seconds.90% min. lead terminals shall be wet with solder (Except the edge of terminals).
8	Terminal / Wire Strength Pulling Test	The force of 9.8N(1.0kg) is applied to each terminal in axial direction for 10 seconds. No visible damage and cutting off.

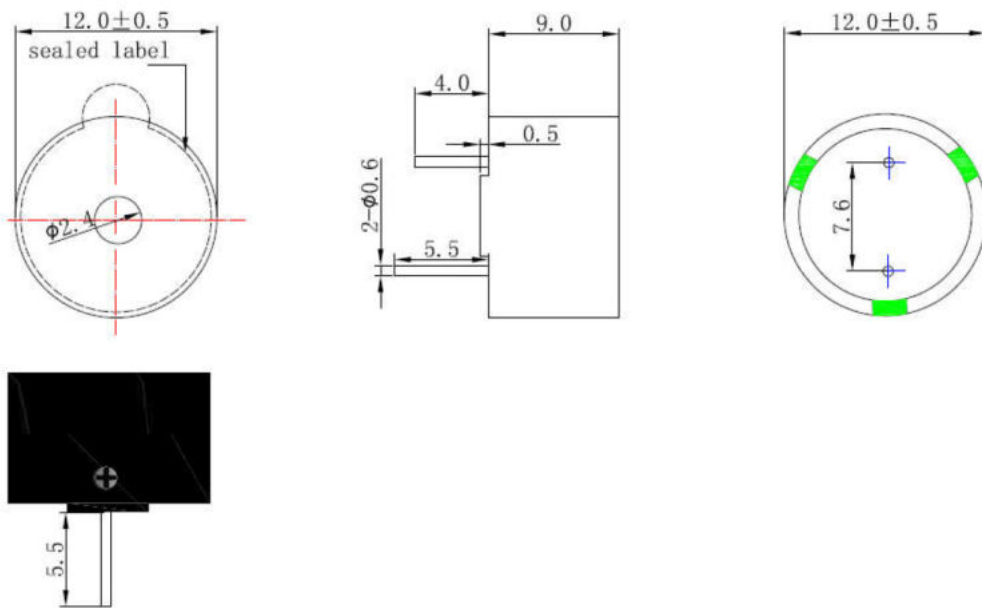
7. Reliability Test

Continuous life test:

250 Hours continuous operating at $+70^{\circ}\text{C}$ with maximum rated voltage applied . Intermittent life test:

Aduty cycle of 1 minute on, 5 minutes off, a minimum of 10000 times at temperature $+25^{\circ}\text{C}\pm 2$

8. Dimensions



Tolerance ± 0.5 mm