

**Description: magnetic buzzer** 

Date: 9/20/2006

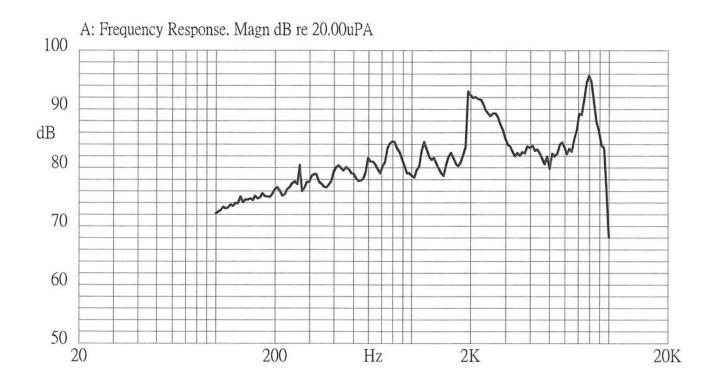
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**Specifications** 

Rated voltage	3.0 Vo-p	Vo-p
Operating voltage	2.0 ~ 4.0 Vo-p	<u></u>
Mean current	90 mA max.	Applying rated voltage, 2000 Hz
		square wave, ½ duty
Coil resistance	15.0 ±2.0 Ω	
Sound output	Min. 85 (Typical 90) dBA	Distance at 5cm (A-weight free air).
		Applying rated voltage of 2000 Hz, square
		wave, ½ duty.
Rated frequency	2,000 Hz	
Operating tempurature	-30 ~ +70° C	
Storage tempurature	-40 ~ +85° C	
Dimensions	ø12.0 x H3.8 mm	See attached drawing
Weight	1.0 g	
Material	PPO (Black)	
Terminal	Pin type (Au Plating)	See attached drawing
RoHS	yes	

# **Frequency Response Curve**





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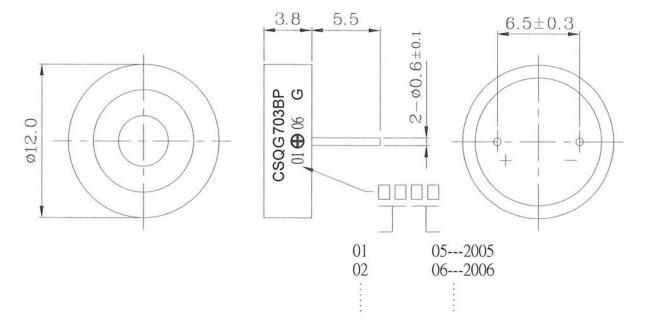
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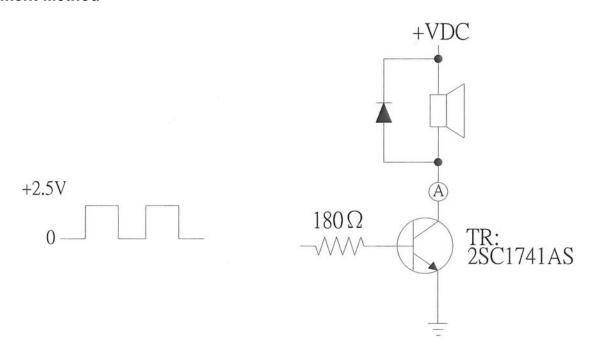
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# **Appearance Drawing**

Tolerance: ±0.5



#### **Measurement Method**





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#### **Mechanical Characteristics**

Item	Test Condition	Evaluation Standard
Solderability <sup>1</sup>	Lead terminals are immersed in rosin for	90% min. lead terminals must
	5 seconds and then immersed in a solder bath	be covered with fresh solder.
	of +270 ±5°C for 3 ±1 seconds.	(Except the edge of the terminal.)
Soldering Heat Resistance	Lead terminals are immersed up to 1.5mm from	
	buzzer's body in solder bath of 270 ±5°C for No in interference in operation.	
	3 ±1 seconds.	
Terminal Mechanical Strength	Lead pads shall be soldered onto the pc	
	board and the force of 9.8 N (1.0 kg) shall	No damage or cutting off.
	be applied behind the part for 10 seconds.	
Vibration	The buzzer will be measured after applying	
	a vibration amplitude of 1.5 mm with 10 to	After the test, the part shall meet
	55 Hz band of vibration frequency to each of	specifications without any
	the 3 perpendicular directions for 2 hours.	damage to the appearance and
Drop Test	The part is to be dropped from a height of	the SPL should be within ±10
	75 cm onto a 40 mm thick wooden board 3	dBA of the initial SPL.
	times in 3 axis (X, Y, Z) for a total of 9 drops.	

Notes: 1. Not recommended for wave soldering

# **Environment Test**

Item	Test Condition	Evaluation Standard
High temp. test	The part will be subjected to +85°C for 96 hours.	
Low temp. test	The part will be subjected to -40°C for 96 hours	
Thermal shock	The part will be subjected to 10 cycles. One cycle will consist of:	
	+85°C -40°C 30 min. 30 min. 60 min.	The buzzer will be measured after being placed at +25°C for 4 hours. There should be no degredation to the appearance or performance. The SPI should
Temp./Humidity cycle	The part should be subjected to 10 cycles. On cycle will last for 24 hours and consist of:  +85°C  a,b:90~98%RH c:80~98%RH c:80~98%RH	performance. The SPL should be within ±10dB compared to the initial measurements.



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**Reliability Test** 

Item	Test Condition	Evaluation Standard
Operating (Life Test)	Continuous life test:	
	The part will be subjected to 72 hours at +55°C	After the test, the part shall meet
	with 3.0 V, 2000 Hz applied.	specifications without any damage to the appearance or
	2. Intermittent life test:	performance. After 4 hours at
	A duty cycle of 1 minute on, 1 minute off, a minimum of 10,000 times at room temp (+25±10°C) with 3.0 V, 2000 Hz applied.	+25°C, the SPL should be within ±10 dBA of the initial SPL.

### **Test Conditions**

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Standard Test Condition	a) Tempurature: +5 ~ +35°C	b) Humidity: 45 - 85%	c) Pressure: 860 - 1060 mbar
Judgement Test Condition	a) Tempurature: +25±2°C	b) Humidity: 60 - 70%	c) Pressure: 860 - 1060 mbar



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## **Packaging**

