**Description:** magnetic buzzer

Date: 3/13/2006

Unit: mm

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# SCOPE

This specification applies to magnetic buzzer, CEM-1203(42)

## **SPECIFICATION**

No.	Item	Unit	Specification	Condition	
1	Rated Voltage	Vo-p	3.5	Vo-p	
2	Operating Volt.	Vo-p	3.0~5.0		
3	Mean Current	mA	Max. 35	Applying rated voltage,2048Hz square wave, 1/2duty	
4	Coil Resistance	Ω	42.0 ± 6.3		
5	Sound Output	dBA	Min.85 (Typical 95)	Distance at 10cm(A-weight free air). Applying rated voltage 2048Hz,square wave, 1/2duty	
6	Rated Frequency	Hz	2048		
7	Operating Temp.	°C	-20 ~ +60		
8	Storage Temp.	$^{\circ}$	-30 ~ +70		
9	Dimension	mm	φ 12.0 × H8.5	See attached drawing.	
10	Weight	gram	1.4		
11	Material		PPO(Black)		
12	Terminal		Pin type (Plating Au)	See attached drawing.	
13	Environmental Protection Regulation		RoHS	67	

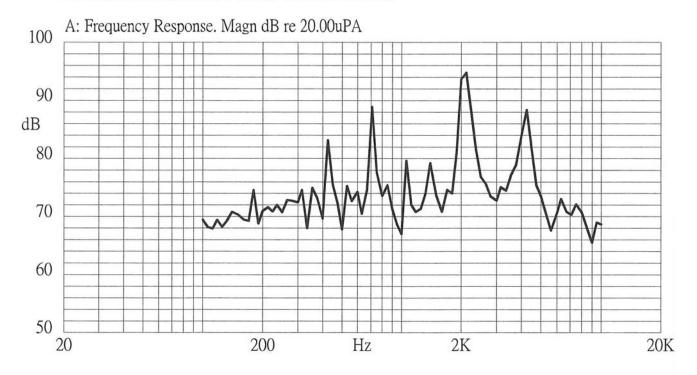
Description: magnetic buzzer

Date: 3/13/2006

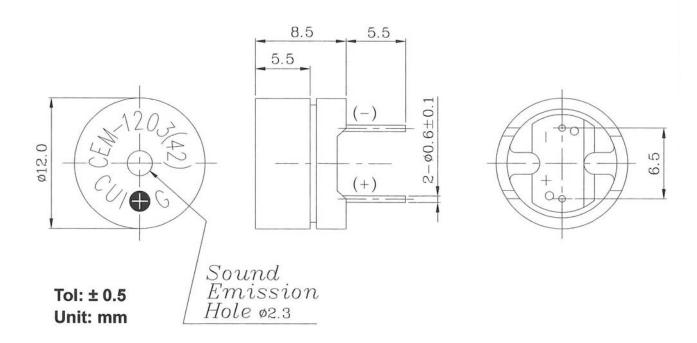
Unit: mm

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#### TYPICAL FREQUENCY RESPONSE CURVE



# APPEARANCE DRAWING



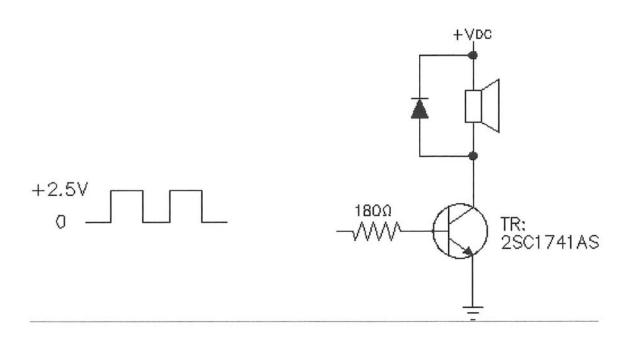
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#### **MEASUREMENT METHOD**



#### MECHANICAL CHARACTERISTICS

No.	Item	Test condition	<b>Evaluation standard</b>	
1	Solderability	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +270±5°C for 3±1 seconds.	90% min. lead terminals shall be wet with solder. (Except the edge of terminal)	
2	, ,		No interference in operation	
3	The force 10 seconds of 9.8N (1.0kg) is applied to each terminal in axial direction.		No damage and cutting of	
4	Vibration	Buzzer shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55hz band of vibration frequency to each of 3 per-pendicular directions for 2 hours.	After the test the part shall meet specifications with-out any damage in appearance and the SPL—should be in ±10dBA compared with initial one.	
5	Drop test	The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X.Y.Z). (a total of 9 times).		



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#### **ENVIRONMENT TEST**

Item	Test condition	<b>Evaluation standard</b>	
High temp. test	After being placed in a chamber at +70°C for 96 hours.		
Low temp. test	After being placed in a chamber at -30°C for 96 hours.		
Thermal Shock	The part shall be subjected to 10 cycles. One cycle shall consist of;  +70°C  -30°C  30 min.  60 min.	After the test the part shall meet specifications with-out any degradation in appearance and performance except SPL. after 4 hours at +25°C. the SPL should be in ±10dBA compared with	
Temp./ Humidity Cycle	The part shall be subjected to 10 cycles. One cycle shall be 24 hours and consist of;  +70°C  a,b:90~98%RH c:80~98%RH c:80~98%RH	initial one.	
	High temp. test  Low temp. test  Thermal Shock  Temp./ Humidity	High temp. test  After being placed in a chamber at +70°C for 96 hours.  After being placed in a chamber at -30°C for 96 hours.  The part shall be subjected to 10 cycles. One cycle shall consist of;  +70°C  30 min.  30 min.  The part shall be subjected to 10 cycles. One cycle shall be 24 hours and consist of;  Temp./ Humidity Cycle  Temp./ Humidity Cycle  125°C  125°C  After being placed in a chamber at +70°C for 96 hours.  10 cycles. One cycle shall be 24 hours and consist of;  11 cycles.  125°C  125°C  13 d b  1250.5hrs  1250.5hrs  15 d b  16 d d d d d d d d d d d d d d d d d d d	

## **RELIABILITY TEST**

No.	Item	Test condition	<b>Evaluation standard</b>
1	Operating life test	<ul> <li>1.Continuous life test The part shall be subjected to 72 hours at +45°C with 3.5V ,2048Hz applied.</li> <li>2.Intermittent life test A duty cycle of 1 minute on, 1 minutes off, a minimum of 10000 times at room temp.( +25±10°C) with 3.5V ,2048Hz applied.</li> </ul>	After the test the part shall meet specifications with-out any degradation in appearance and performance except SPL. after 4 hours at +25°C. the SPL should be in ±10dBA compared with initial one.

TEST CONDITION.

Standard Test Condition : a) Temperature : +5  $\sim$  +35  $^{\circ}$ C b) Humidity : 45-85% c) Pressure : 860-1060mbar

Judgement Test Condition : a) Temperature :  $+25 \pm 2^{\circ}$ C b) Humidity : 60-70% c) Pressure : 860-1060mbar

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#### PACKING STANDARD

