# MESSRS. SPECIFICATION FOR APPROVAL 承 認 書 Product MAGNETIC BUZZER (SMD) Part No. AD-8504-CQ10-LF (RoHS) Customer

Approval

Approved By	Checked By	Made By
工程部	工程部	工程部
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OCT-23-2006	OCT-23-2006	OCT-23-2006



## **1.CHARACTER DATA**

	Items	Units	Specifications	Conditions		
01	Rated Voltage	Vo-p	3.6	Vo-p		
02	Operating Voltage	Vo-p	2.5~4.5			
03	Concumption Current	mA	Mean 100			
03	Consumption Current	(max)	Peak 300	Standard State, Standard Drive Circuit.		
04	04 Sound Output	dB	87	Rated Voltage, Rated Frequency, Distance		
04 Sound Output	Sound Output	(min)	07	at 10 cm free air,Square Wave 1 / 2 Duty		
05	Rated Frequency	Hz	4000			
06	Coil Resistance	Ω	16 ± 3	At Basic State		
07	Operating Temp.	°C	-30 ~ +75			
08	Storage Temp.	°C	-40 ~ +85			
09	Weight	Gram	0.6			

# 2.Test Condition STANDARD

Temperature :  $15 \sim 35^{\circ}$ C

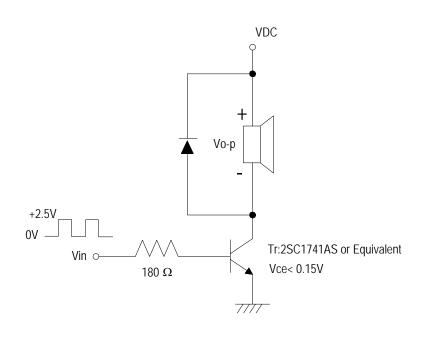
Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

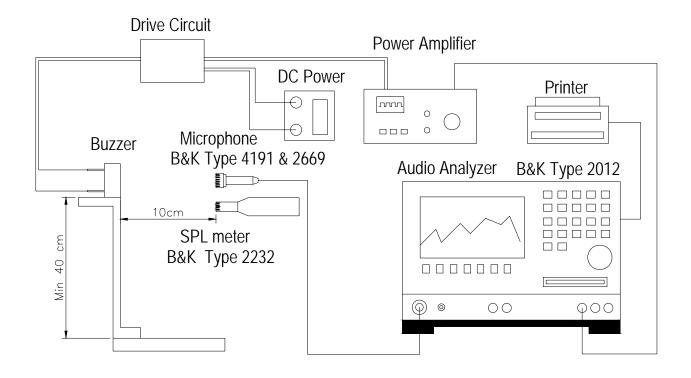
### BASIC

Temperature :  $20\pm3^{\circ}C$ Relative humidity :  $60\% \sim 70\%$ , Atmospheric pressure : 860mbar to 1060mbar

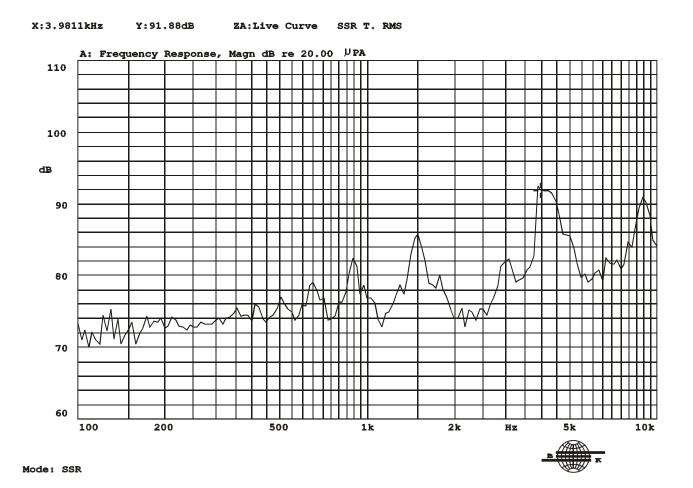
### **Standard Drive Circuit**



### **Standard Test Fixture**



### Frequency Response Curve



ι α		s.5	-PAD镀 ND POF		< 45° -	ARITY -		
<i>TITLE: <sub>SO</sub> PART NO</i> .		DUCER (SMD)		DESIGNED:	ly z R&D OF	AAT		SHEET: 1 OF 1 nm ± 0.2
DWG NO.		-CQ10-LF		CHECKED: PPROVAL:			UNLESS OTHER	RWISE SPECIFIED ECIMAL ± ***
	<i>DID</i> -	-2010	REV A	IATERIAL:	LCP			DECIMAL ± ***

# **5.RELIABILITY TEST**

Item		Test conditions	Evaluation standard	
01	High temp.Storage life	The part shall be capable of withstanding a storage Temperature of $85^{\circ}$ C for 96 hours.		
02	Low temp.Storage life			
03	Temp. cycle	The part shall be subjected 10 cycles. One cycle shall consist of; -40°C 30 min 60 min	After the test the part shall	
04	Temp./Humidity cycle	The part shall be subjected 10 cycles. One cycle shall be 12 hours and consist of $90 \sim 95 \%$ RH $25^{\circ}C$ 0.5hr 0.5hr 0.5hr 5hrs	meet specifications without Any degradation in appearance and performance except S.P.L S.P.L shall be 78dB or more.	
05	Operating life	<ul> <li>Rated Voltage, Frequency applied.</li> <li>1. Ordinary temperature <ul> <li>The part shall be subjected to 1000 hours at room</li> <li>tremperature (25 ±10°C)</li> </ul> </li> <li>1. High temperature <ul> <li>The part shall be subjected to 500 hours at 75°C</li> </ul> </li> <li>2. Low temperature <ul> <li>The part shall be subjected to 500 hours at -30°C</li> </ul> </li> </ul>		
06	Vibration	The part shall be subjected to a vibration cycle of 10Hz to 55Hz to 10Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm (9.3G). The vibration test shall consist of 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours.		
07	Fixed drop	The part shall be mounted on standard pc board and dropped from a height of 152cm onto a concrete floor 5 times in each 6 planes.(a total of 30 times)		

Item		Test conditions	Evaluation standard
08	Free drop	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).	
10	Lead strength	Pull lead with a force of 10N,on the direction of the lead axis for 10 :10 $\pm$ 1 sec	

# SOLDER ABILITY

Recommend temperature profile for lead-free solder.

