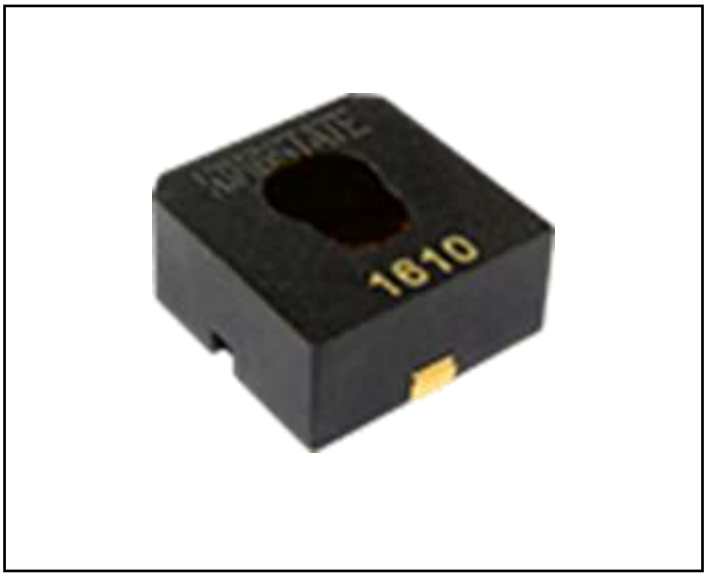
FEATURES

RS PRO Piezo Buzzer Components

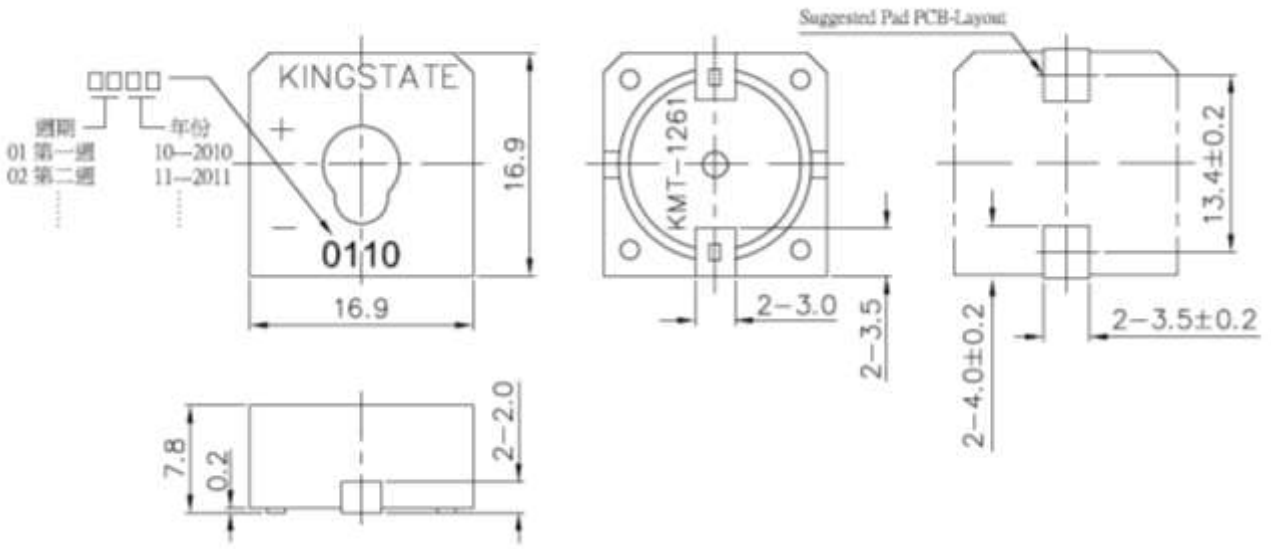
RS Stock No.: 237984



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

APPEARANCE DRAWING



Tol : ± 0.5
Unit: mm

General Specifications

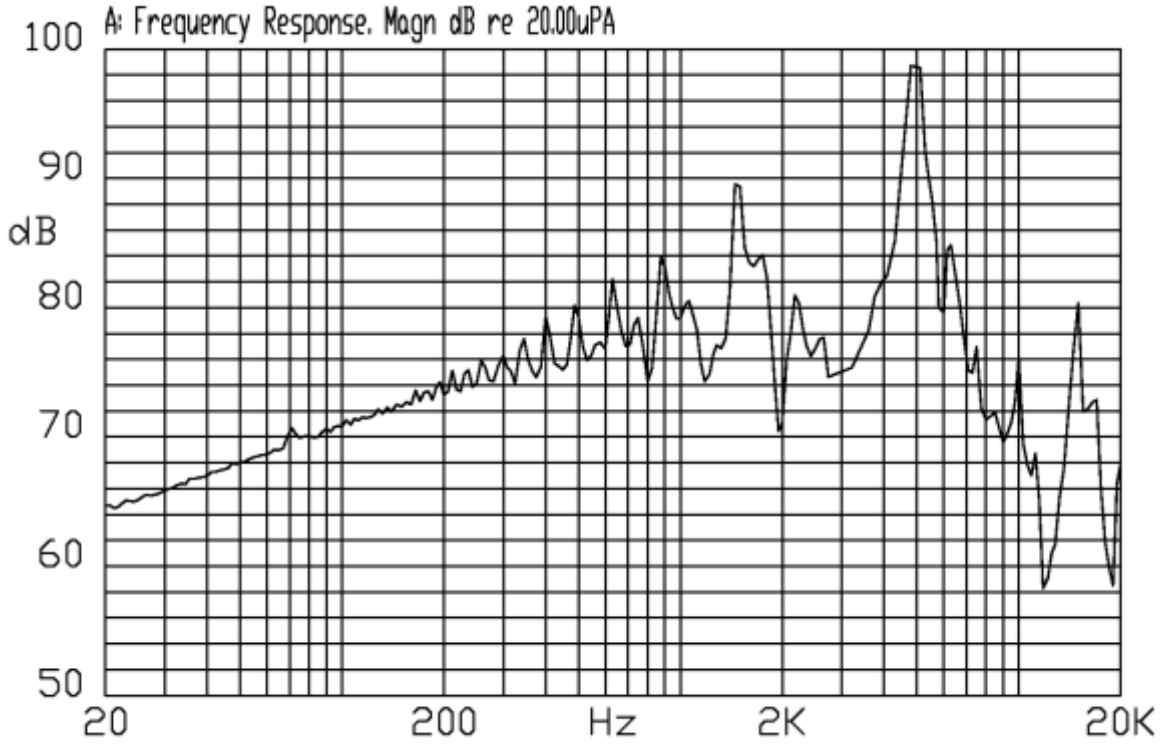
SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Operating Volt.	Vp-p	MAX 20	
2	**Current consumption**	mA	MAX 11	at 10Vp-p,square wave,5.0KHz.

3	Sound pressure level	dB	MIN 90	at 10cm/10Vp-p,square wave,5.0KHz.
4	Electrostatic capacity	pF	19,000 ± 30%	at 1KHz/1V
5	Operating temp.	℃	-30 ~ +70	
6	Storage temp.	℃	-40 ~ +80	
7	Dimension	mm	L16.9xW16.9xH7.8	See appearance drawing
8	Weight (MAX)	gram	2.6	
9	Material		PPS UL-94 V-0（BLACK）	
10	Terminal		SMD type (/Plating Au)	See appearance drawing
11	Environmental Protection Regulation		RoHS	

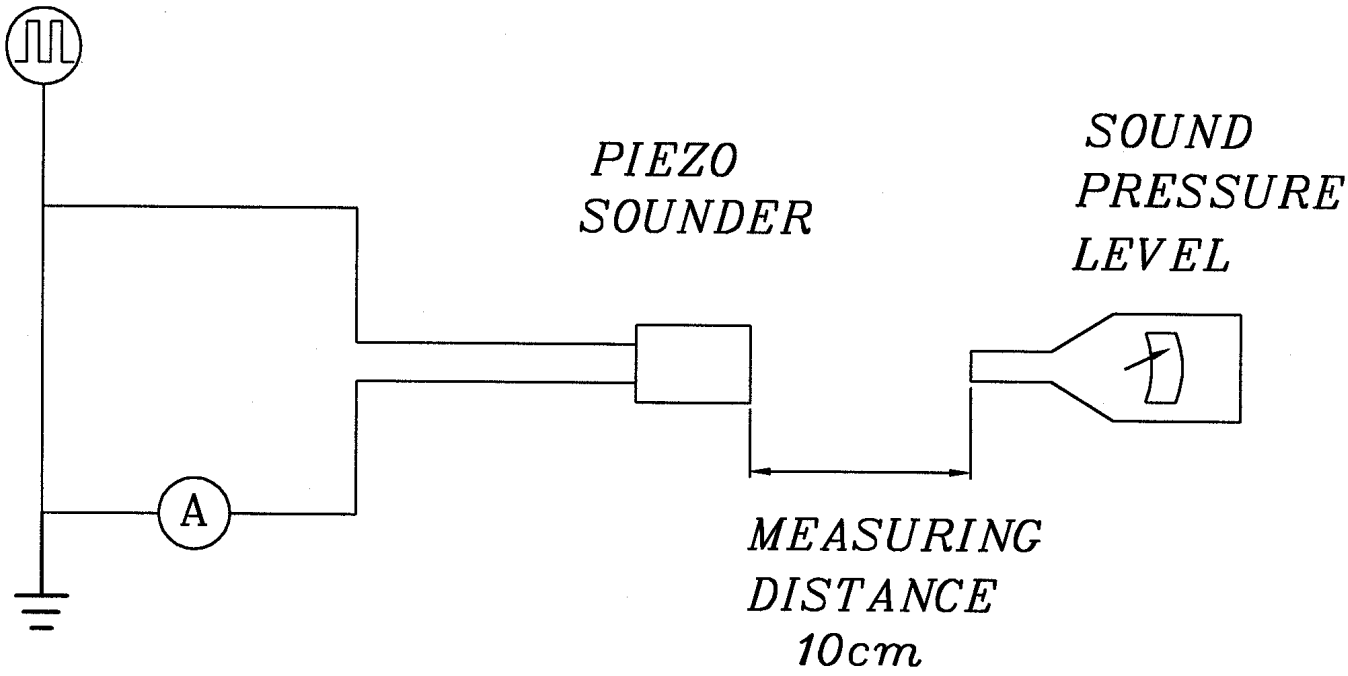
Electrical Specifications

TYPICAL FREQUENCY RESPONSE CURVE



MEASURING METHOD

Input Signal: 10Vp-p,5kHz, Square Wave



Mic : RION S.P.L meter UC30 or equivalent
S.G : Hewlett Packard 33120A Function Generator or equivalent

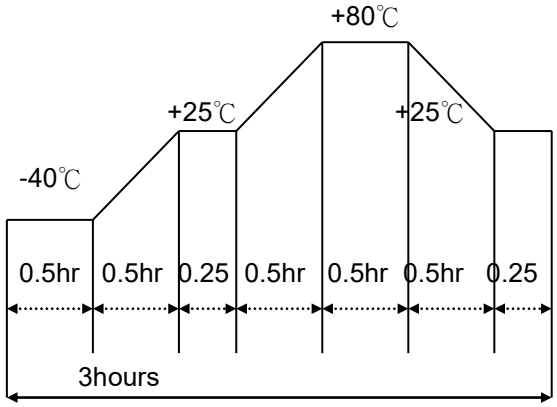
Mechanical Specifications

MECHANICAL CHARACTERISTICS

No.	Item	Test Condition	Evaluation standard
1	Solderability	Lead terminals are immersed in solder bath of +270±5℃ for 3±1 second.	95% surface of lead pads must be covered with fresh solder
2	Soldering Heat Resistance	The product is followed the reflow temperature curve to test its reflow thermo stability.	No interference in operation. .
3	Terminal Mechanical Strength	Lead pads shall be soldered on the pc board, and the force 9.8N(1.0kg) shall be applied behind the part for 10 seconds.	No damage and cutting off
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.	The value of oscillation frequency/ current consumption should be in ±10% compared with initial

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).	ones .The SPL should be in ±10dB compared with initial one.

Operation Environment Specifications

No.	Item	Test Condition	Evaluation standard
1	High temp. test	After being placed in a chamber at +80℃ for 72 hours	Being placed for 4 hours at +25℃, buzzer shall be measured. The value of oscillation frequency/ current consumption should be in ±10% compared with initial ones .The SPL should be in ±10dB compared with initial one.
2	Low temp. test	After being placed in a chamber at –40℃ for 72 hours	
3	Humidity test	After being placed in a chamber at +40℃ and 90±5% relative humidity for 72 hours	
4	Temp. cycle test	The part shall be subjected to 5 cycles. One cycle shall be consist of:: 	

RELIABILITY TEST

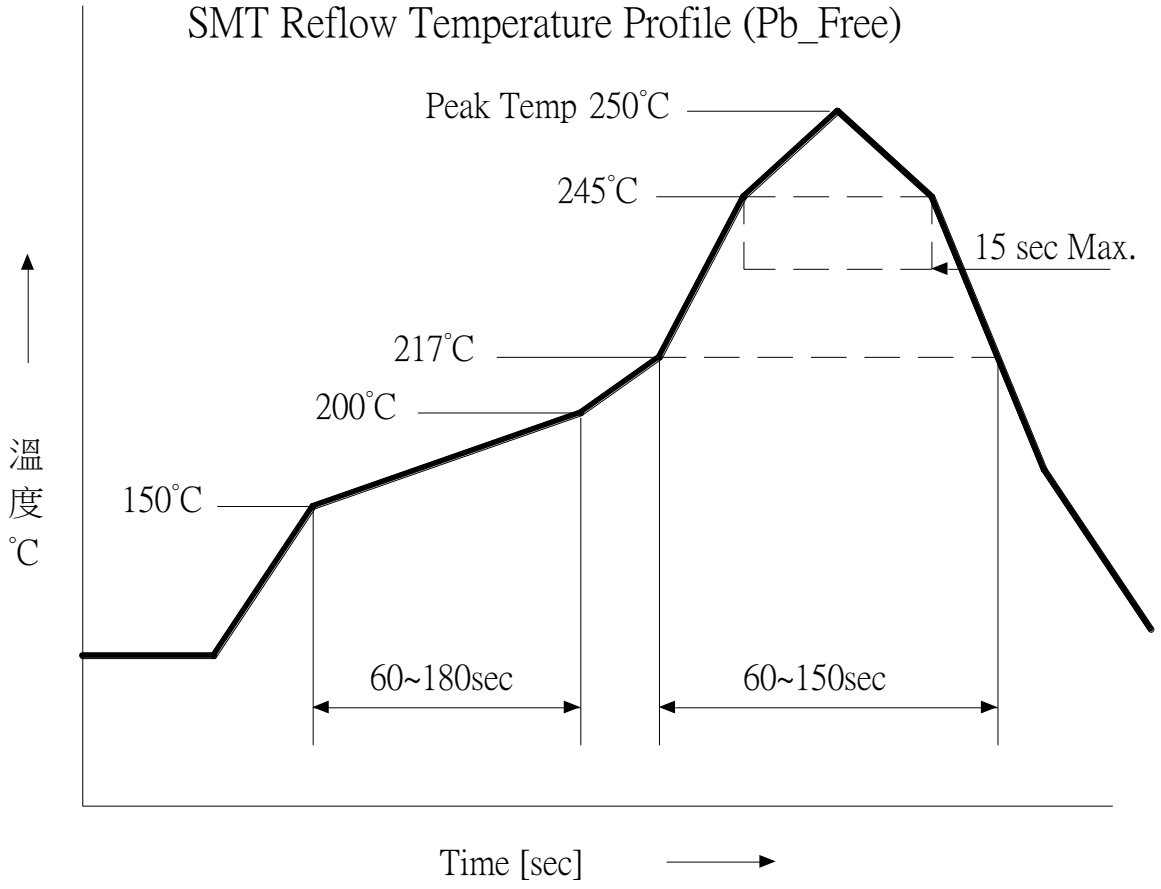
No.	Item	Test condition	Evaluation
1	Operating life test	1.Continuous life test 48 hours continuous operation at +55℃ with rated voltage applied. 2.Intermittent life test A duty cycle of 1 minute on, 1 minutes off, a minimum of 5000 times at room temp.(+25 ±2℃)and rated voltage applied.	Being placed for 4 hours at +25℃, buzzer shall be measured. The value of oscillation frequency/ current consumption should be in ±10% compared with initial ones .The SPL should be in ±10dB compared with initial one.

TEST CONDITION.

Standard Test Condition:a) Temperature : +5 ~ +35℃ b) Humidity : 45-85% c) Pressure : 860-1060mbar

Judgement Test Condition :a) Temperature : +25 ± 2℃ b) Humidity : 60-70% c) Pressure : 860-1060mbar

Recommended Temperature Profile For Reflow Oven



Note: 245℃ is Less than 15 sec. ,but only pass the lead free reflow once.