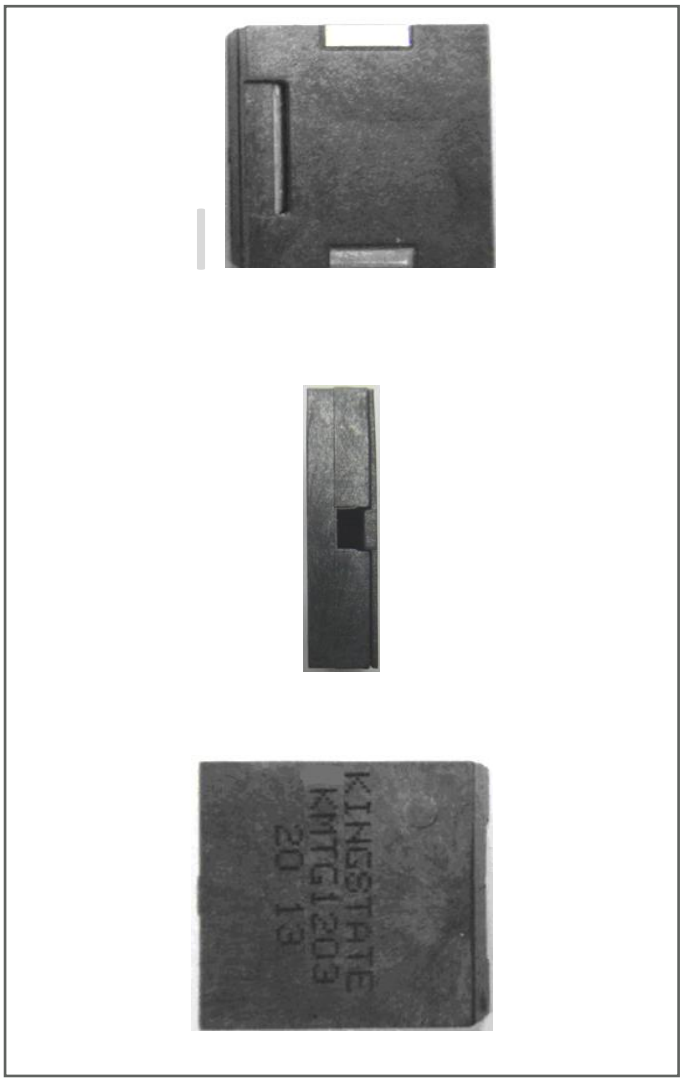
Features

- Electroacoustic parts
- Used to sound warning sounds
- Prompt sound or feedback sound
- Used in various electronic products

RS PRO Piezo Buzzer Components

RS Stock No.: 754-1980



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

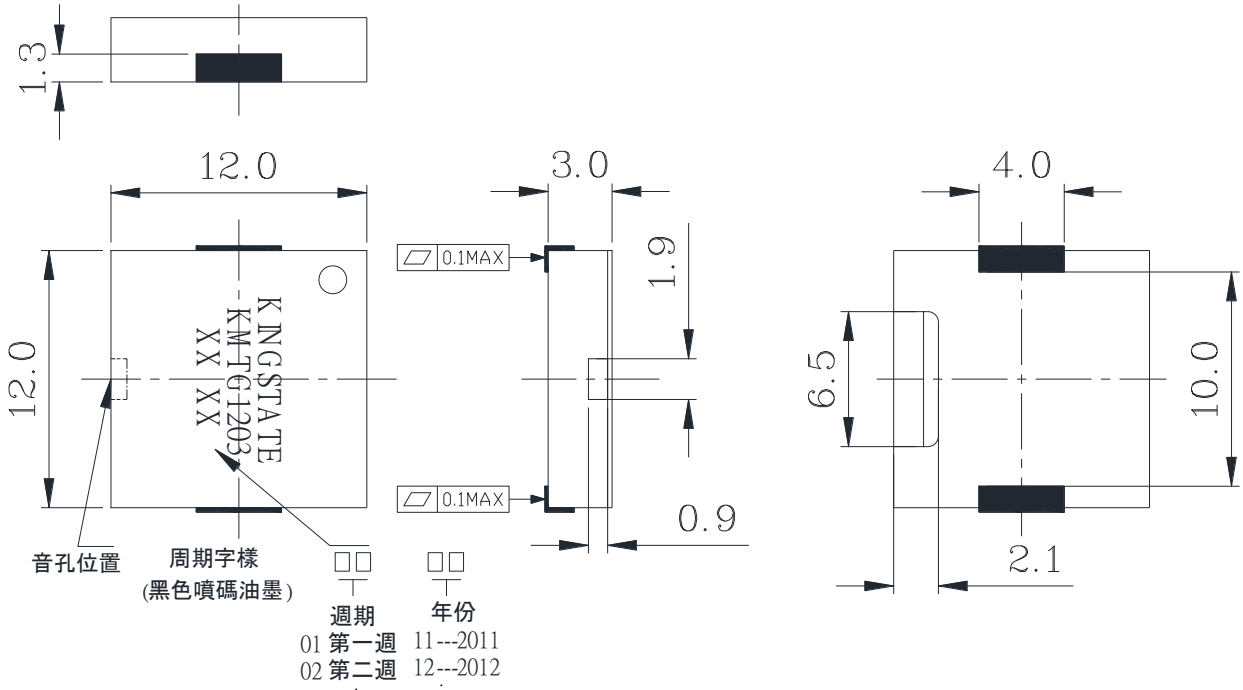
SCOPE

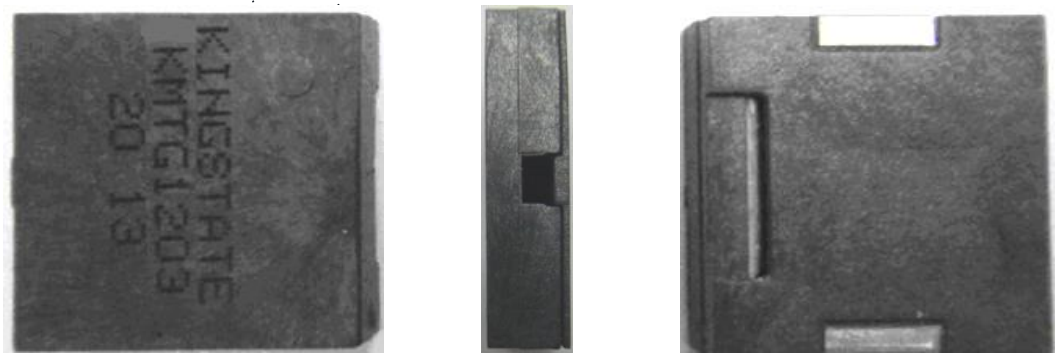
This specification applies piezo audio transducer, 754-1980

SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Operating Volt. Range	Vp-p	MAX 25	
2	Current consumption	mA	MAX 5.0	at 5Vp-p,square wave,4.0KHz.
3	Sound pressure level	dB	MIN 81	at 10cm/5Vp-p,square wave,4.0KHz
4	Electrostatic capacity	pF	16,000 ± 30%	at 120Hz/1V
5	Operating temp.	℃	-40 ~ +120	
6	Storage temp.	℃	-40 ~ +120	
7	Dimension	mm	L12.0 x W12.0 x H3.0	See appearance drawing
8	Weight (MAX)	gram	0.50	
9	Material		LCP（Black）	
10	Terminal		SMD type (Plating Sn)	See appearance drawing
11	Environmental Protection Regulation		RoHS2.0	Piezo electronic device is exempted from RoHS2.0. Lead contain restriction.
12	Storage life	month	6	6 months preservation at room temp.(25±3℃), Humidity40%
13	MSL		2	≤30℃/60%RH 1Year Floor life

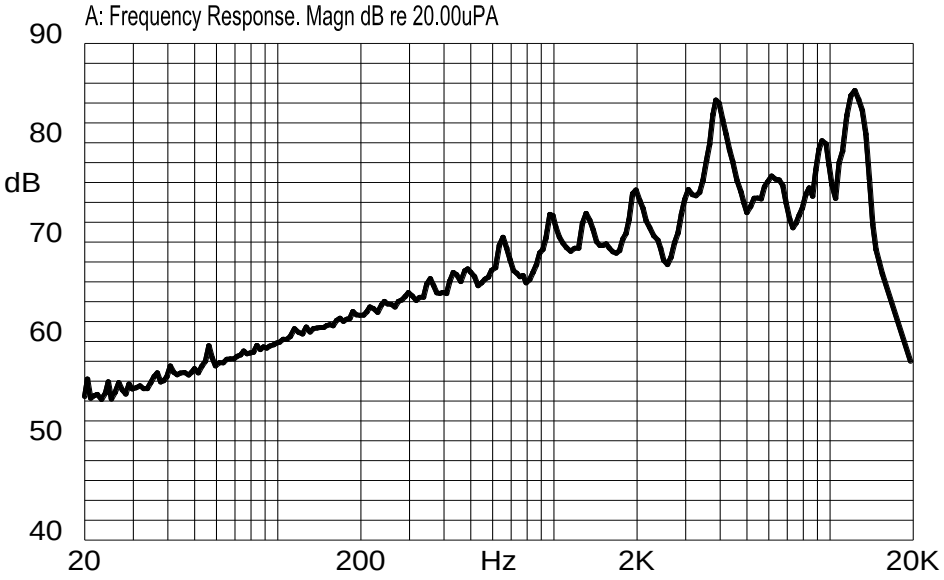
APPEARANCE DRAWING





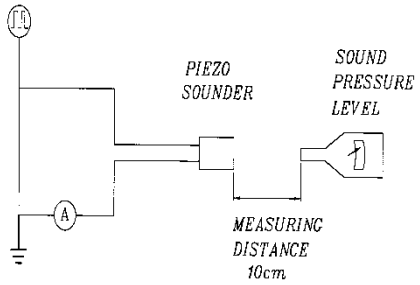
Tol: ± 0.3
Unit: mm

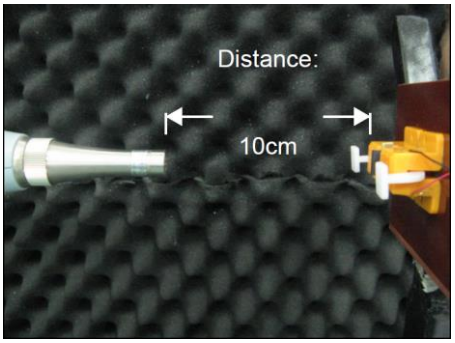
TYPICAL FREQUENCY RESPONSE CURVE



MEASUREMENT METHOD

S.P.L. Measuring Circuit
Input Signal: 5Vp-p,4.0kHz, Square Wave



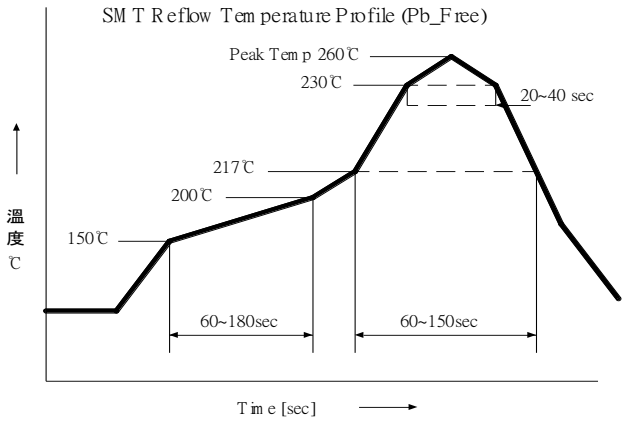


Mic : RION S.P.L meter UC30 or equivalent
S.G : Hewlett Packard 33120A Function Generator or equivalent

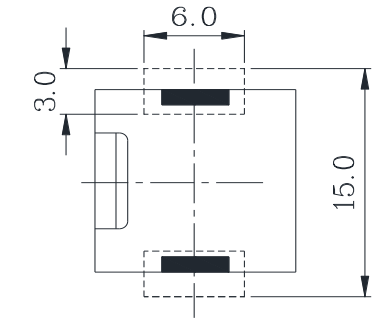
MECHANICAL CHARACTERISTICS

No.	Item	Test Condition	Evaluation standard
1	Solderability	Lead terminals are immersed in solder bath of +350±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 ones .The SPL should be in ±10dB 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).	
6	Temperature tolerance of Conductive Silver Paste	Conductive Silver Paste curing at 150℃ and then it can bear temperature less than 260℃.	No interference in operation.
7	Survivability of Reflow process	Buzzer cannot through reflow process more than 2 times and please reference Temperature profile as figure ‘G. Recommended Temperature Profile For Reflow Oven ‘ is recommended.	No interference in operation

RECOMMENDED TEMPERATURE PROFILE FOR REFLOW OVEN

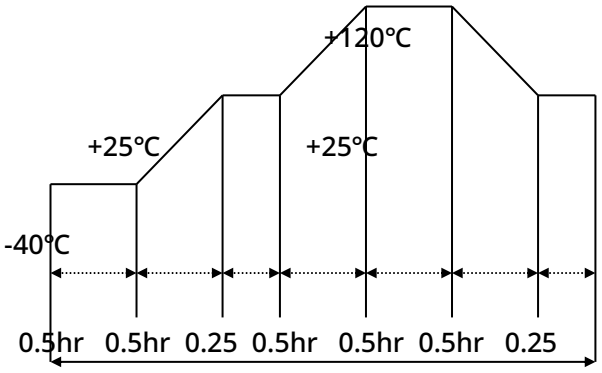


RECOMMENDED LAND PATTERN



Recommendable Land Pattern

ENVIRONMENT TEST

No.	Item	Test Condition	Evaluation standard
1	High temp. test	After being placed in a chamber at +120℃ for 240 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 240 hours	
3	Humidity test	After being placed in a chamber at +40℃ and 90±5% relative humidity for 240 hourS	
4	Temp. cycle test	The part shall be subjected to 5 cycles. One cycle shall be consist of::  3hours	

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, 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