

SPECIFICATION

评估版

Customer :

Applied To :

Product Name : Magnetic Transducer

Model Name : SMT-G8530A

Drawing No. : KP3.840.968

Compliance with ROHS(本品符合ROHS指令)

Signature of Approval

| |
|--|
| |
|--|

Signature of KEPO

| Approved by | Checked by | Issued by | Date |
|-------------|------------|-----------|------|
| | | | |



宁波凯普电子有限公司

Ningbo Kepo Electronics Co.,Ltd.

宁波东钱湖镇东钱湖工业区宝源路25号

TEL:+86-574-88370330 FAX:+86-574-88370329

No.25 Baoyuan road Dongqian Lake, Industry Area, Dongqian town, Ningbo City, China(Post Code:315121)

Sales@chinaacoustic.com www.chinaacoustic.com

| | | | |
|--|-------------------|---------------------|--------------------|
| Specification for Magnetic Transducer | | Page | 2/12 |
| | | Revision No. | |
| Model No. : | SMT-G8530A | Drawing No. | KP3.840.968 |

CONTENTS

1. **Scope**
范围
2. **General**
概要
3. **Electrical and Acoustic Characteristics.**
电声参数
4. **Reliability Test**
可靠性试验
5. **Measurement Block Diagram & Response curve**
测试图和曲线图
6. **Structure**
结构
7. **Dimensions**
尺寸
8. **Packing**
包装
9. **Cautions**
警告
10. **Cautions for Use**
注意事项
11. **Revision**
履历表

| | | | |
|--|-------------------|---------------------|--------------------|
| Specification for Magnetic Transducer | | Page | 3/12 |
| | | Revision No. | 0.0 |
| Model No. : | SMT-G8530A | Drawing No. | KP3.840.968 |

1. Scope

This product specification is applied to the Magnetic Transducer in alarm systems. Please contact us when using this product for any other applications than described in the above.

本规格书适用于电磁式声响器，通常它用在系统中做报警或提示的声响器用，如果将该产品用于其它领域，请与我们联系。

2. General

2.1 Out-Diameter : 8.5X8.5 mm

外径: 8.5X8.5 mm

2.2 Height : 3.0 mm

高度: 3.0 mm

2.3 Weight : 0.4g

重量: 0.4g

2.4 Operating Temperature range:

-40~+85℃ without loss of function

工作温度: -40~+85℃

Store Temperature range:

-40~+85℃ without loss of function

储藏温度: -40~+85℃

2.5 According to the No.7 of RoHS Exemptions, lead-based solder alloys containing 85% by weight or more lead (Sn10Pb90)

根据"欧盟RoHS指令豁免条款"第7条规定,使用了铅含量超过85%的锡铅合金焊料(Sn10Pb90)

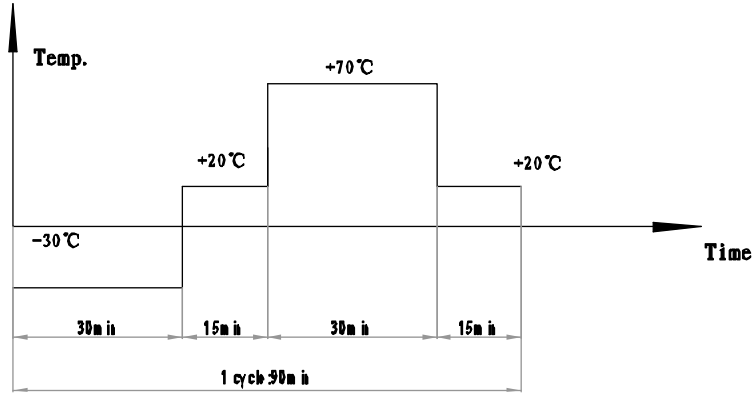
3. Electrical and Acoustic Characteristics.

Test condition : 15 ~ 35 °C, 25% ~ 85% RH, 860~1060 mbar

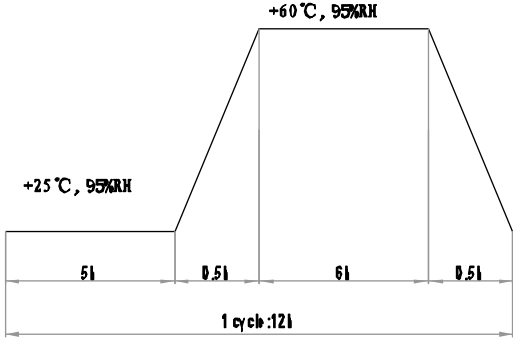
测试条件: 15~35 °C, 25%~85%RH, 860~1060mbar

| | Items 项目 | Specification 规格 |
|---|-----------------------------------|-----------------------|
| 1 | Rated Voltage 额定电压 | 3.6V |
| 2 | Operating Voltage 工作电压 | 2~5V |
| 3 | Max. Rated Current 额定电流 | 90mA/3.6V |
| 4 | Resonant Frequency 谐振频率 | 2731Hz |
| 5 | Min. Sound Pressure Level 额定声压 | 90dB/3.6V/2731Hz/10cm |
| 6 | Coil Resistance 直流阻抗 | 16±3 Ω |
| 7 | Case Material/Color 壳体材质/颜色 | LCP 6130/Black |

4. Reliability Test

| | Item | Specification |
|---|---|--|
| 1 | Heat Resistance 高温放置 | Exposure the specimen to the $-40\pm 3^{\circ}\text{C}$ and 93%RH unpowered for 96 hours then expose to the room temperature for 240 hours 产品不通电, 置于 $-40\pm 3^{\circ}\text{C}$, 湿度为93%RH试验箱中放置240小时, 然后在常温下放置2小时后检测产品 |
| 2 | Cold Resistance 低温放置 | Exposure the specimen to the $85\pm 3^{\circ}\text{C}$ and 93%RH unpowered for 240 hours then expose to the room temperature for 2 hours 产品不通电, 置于 $85\pm 3^{\circ}\text{C}$, 湿度为93%RH试验箱中放置240小时, 然后在常温下放置2小时后检测产品 |
| 3 | Lifetime test in the room temp 室温寿命实验 | Specimen must be soldered onto test PCB through the last the last reflow process, after that the part shall be subjected to room temperature continuously with 1 minute ON 1 minute OFF rated voltage, 50% duty squarewave, resonance frequency applied for 240 hours . 将产品焊(回流焊)到印制板上, 常温额定工作, 信号通1分钟, 断1分钟, 工作240个小时后, 常温产品空置2小时后进行检验 |
| 4 | Temperature Cycle 热冲击 |  <p>Temp.</p> <p>Time</p> <p>30 min 15 min 30 min 15 min</p> <p>1 cycle 90 min</p> <p>-30°C +20°C +70°C +20°C</p> <p>Make this for 5 cycle without applying power ,then expose to the room temperature for 2 hours</p> <p>产品不通电, 放置于室温中做5个循环, 常温产品空置2小时后进行检验</p> |

| | | | |
|---------------------------------------|------------|--------------|-------------|
| Specification for Magnetic Transducer | | Page | 5/12 |
| | | Revision No. | 0.0 |
| Model No. : | SMT-G8530A | Drawing No. | KP3.840.968 |

| | Item | Specification |
|---|------------------------------------|--|
| 5 | Temp./Humidity resistance 温湿度试验 |  <p>Make this test for 10 cycles without applying power, then expose to the room temperature for 2 hours.</p> <p>产品不通电，放置于室温中做10个循环，常温产品空置2小时后进行检验</p> |

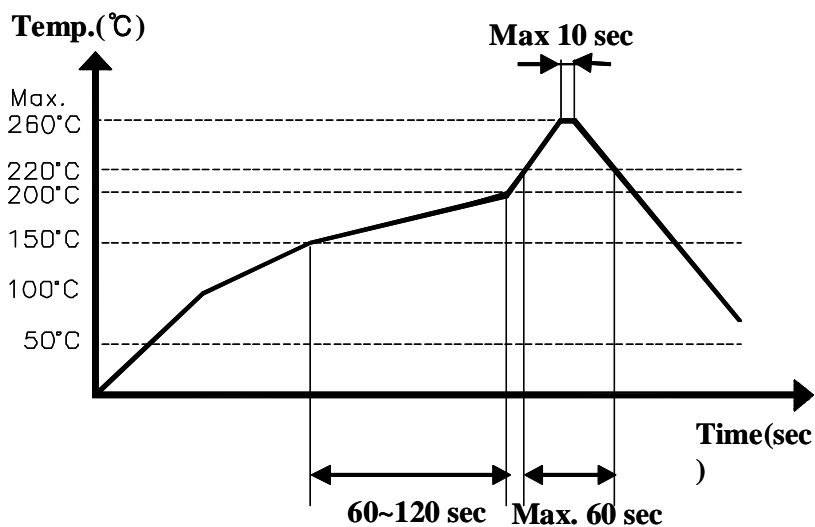
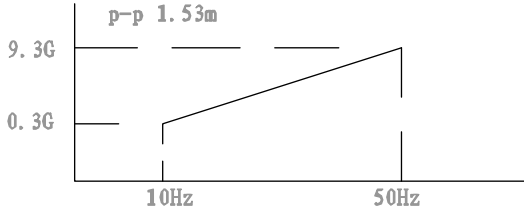
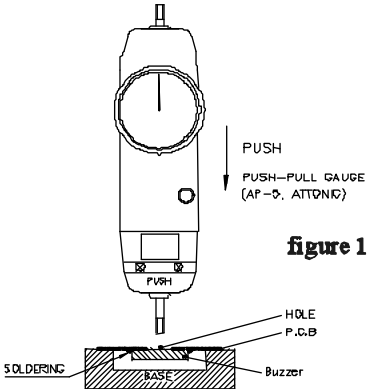


图6-1 回流焊温度曲线

| | | | |
|---------------------------------------|------------|--------------|-------------|
| Specification for Magnetic Transducer | | Page | 6/12 |
| | | Revision No. | 0.0 |
| Model No. : | SMT-G8530A | Drawing No. | KP3.840.968 |

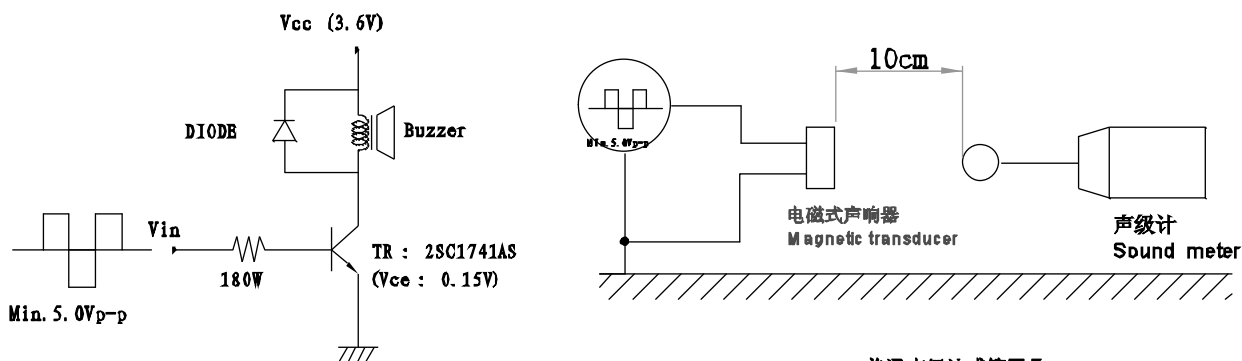
| | Item | Specification |
|----|-----------------------------|---|
| 9 | Vibration test 振动试验 |  <p>Make this test for the directions of X, Y and Z. for 2 hours each (total 6 hours). To-and-fro sweep time is 1 minute</p> <p>Dimension of PCB : 60X90 X1.6t (mm)</p> |
| 12 | Free drop 跌落试验 | <p>Fix specimen on test PCB ,then drop from 1m height to the concrete floor 6 directions (x,y,z-coordinate system),1 time each,total 6 times</p> <p>产品固定到PCB上, 从1m 高朝水泥地自由跌落, X, Y, Z6个方向各跌落一次。</p> |
| 13 | Solderability test 可焊性试验 | <p>Specimen shall be dipped into the soldering bath conditioned as follows :</p> <p>Soldertemperature:max .temperature in reflow profile $\pm 5^{\circ}\text{C}$</p> <p>Soakingtime:$2\pm 0.5\text{s}$ 95% surface of lead pins must be covered with fresh solder and no soldering balls should be found</p> <p>将产品插针部分浸入$260\pm 5^{\circ}\text{C}$的锡炉中2 ± 0.5秒后检测插针95%被锡浸润。</p> |
| 14 | Pad test 焊接强度测试 | <p><input type="checkbox"/> Test Standard (JIS C0050)</p> <p>-Don't be the pad omission & the quake.To satisfy the electronic performance.</p> <p><input type="checkbox"/> Pad Tensile Strength Test Condition</p> <p>- In the pad direction, push the buzzer for 10 sec. with tensile strength of 1.0kg</p> <p>- Refer to the following figure 1</p>  |

4.2 Determinant norm 判定基准

| 项目 Item | 判定基准 Determinant norm |
|------------|--|
| 声压 SPL | 在初始值的 $\pm 10\text{dB}$ 以内 $\pm 10\text{dB}$ based on initial value |

5. Measurement Block Diagram & Response curve

5.1 声压测试 S.P.L. Measuring



MIC : ND10 普通声级计或等同品
 MIC : ND10 Sound meter or equivalent
 S.G. : DF1010 振荡器或等同品
 S.G. : DF1010 Oscillator or equivalent

5.2 频响曲线 Response curve

CRY6125F 蜂鸣器测试仪 V91 无框 滤波器无

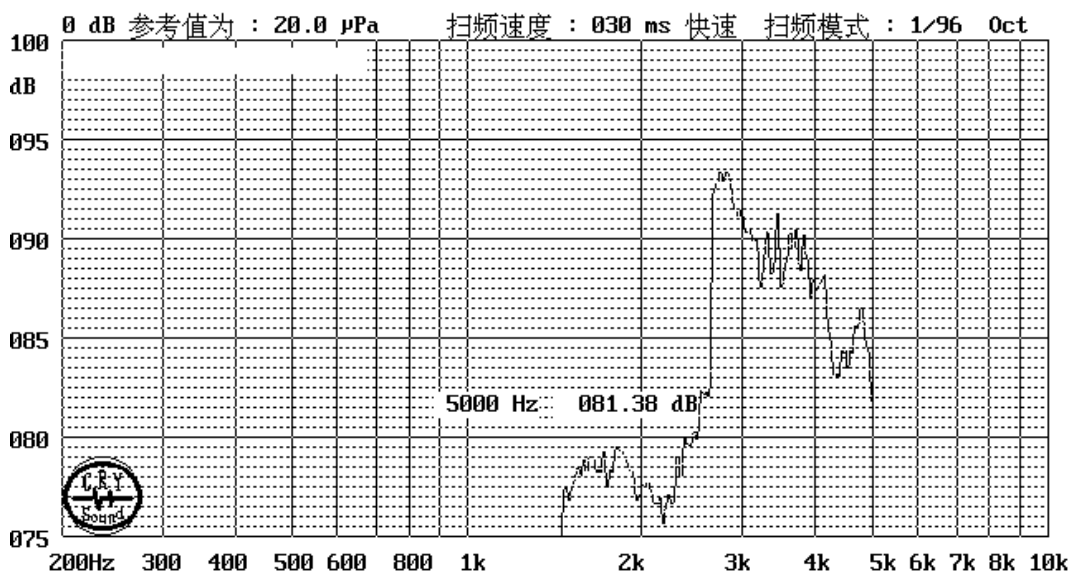
型号: SMT8530A

Fc= 2731 Hz 093.77 dB

正向方波

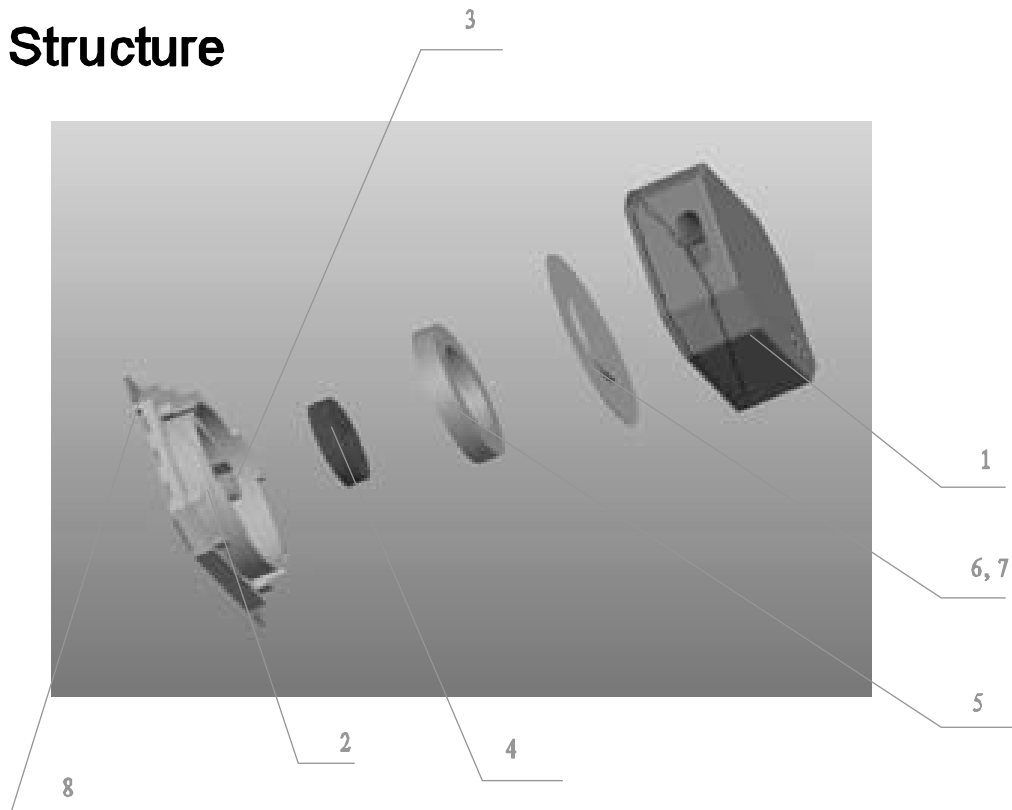
电压: 3600 mV

Fo= 2731 Hz 093.77 dB



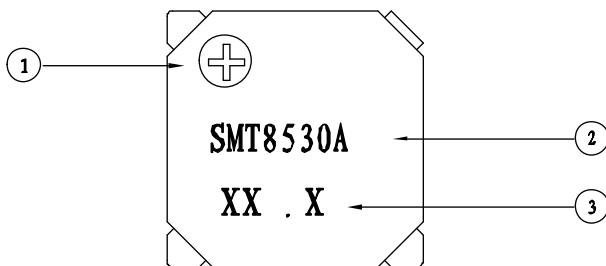
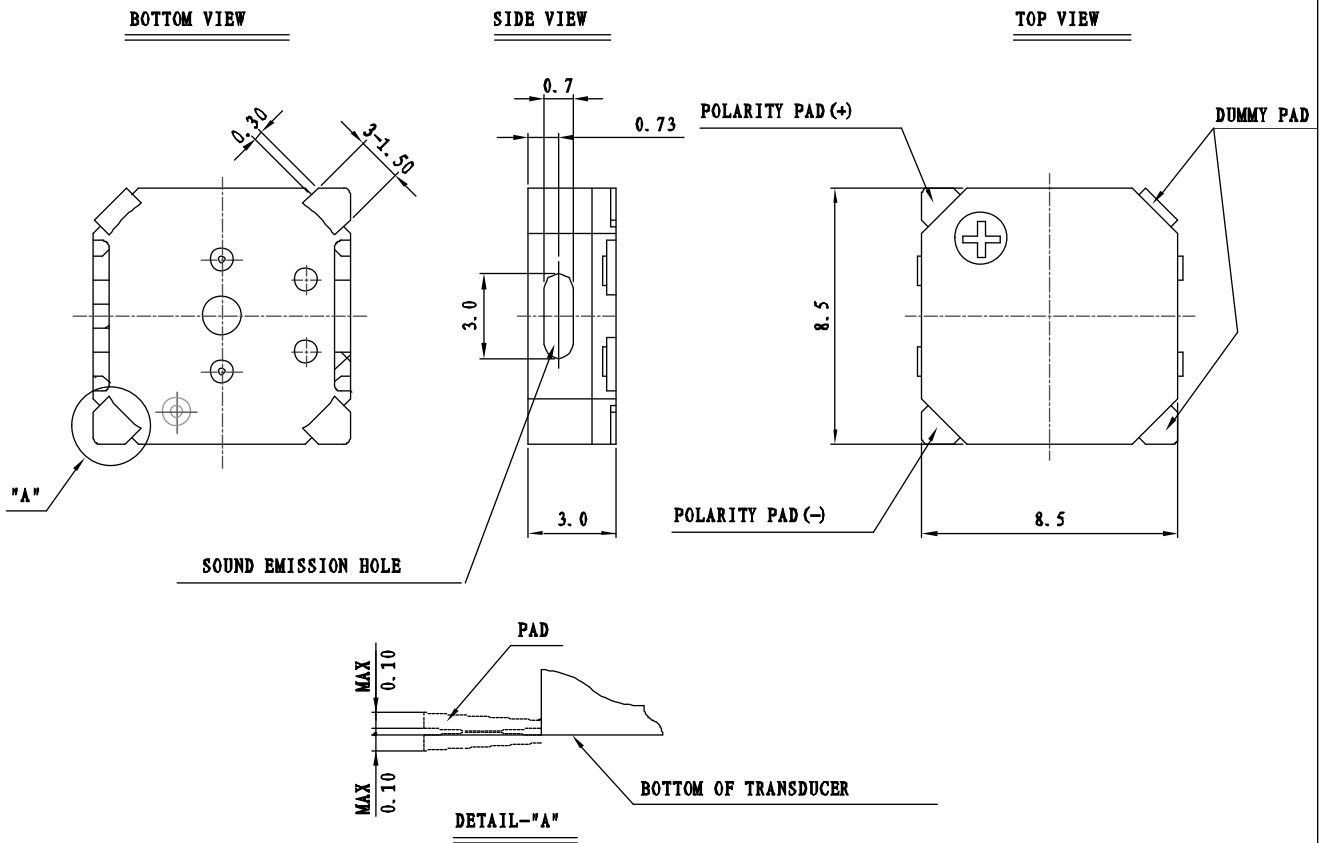
本图面仅供参考

6. Structure



| No | Part Name | Unit | Material |
|----|--------------|------|----------|
| 1 | UPPER CASE | EA | LCP6130 |
| 2 | LOWER CASE | EA | LCP6130 |
| 3 | YOKE | EA | Fe |
| 4 | COIL | EA | Cu |
| 5 | MAGNET | EA | / |
| 6 | RESONATOR | EA | IJ50 |
| 7 | MAGNET PLATE | EA | spcc |
| 8 | TERMINAL | EA | Cu |

| | | |
|--|---------------------|--------------------------------|
| Specification for Magnetic Transducer | Page | 9/12 |
| | Revision No. | 0.0 |
| Model No. : | SMT-G8530A | Drawing No. KP3.840.968 |



① Polarity Mark (+)

② Model No.

③ Data code

The first digit is the number of the year. The last digit is the month.

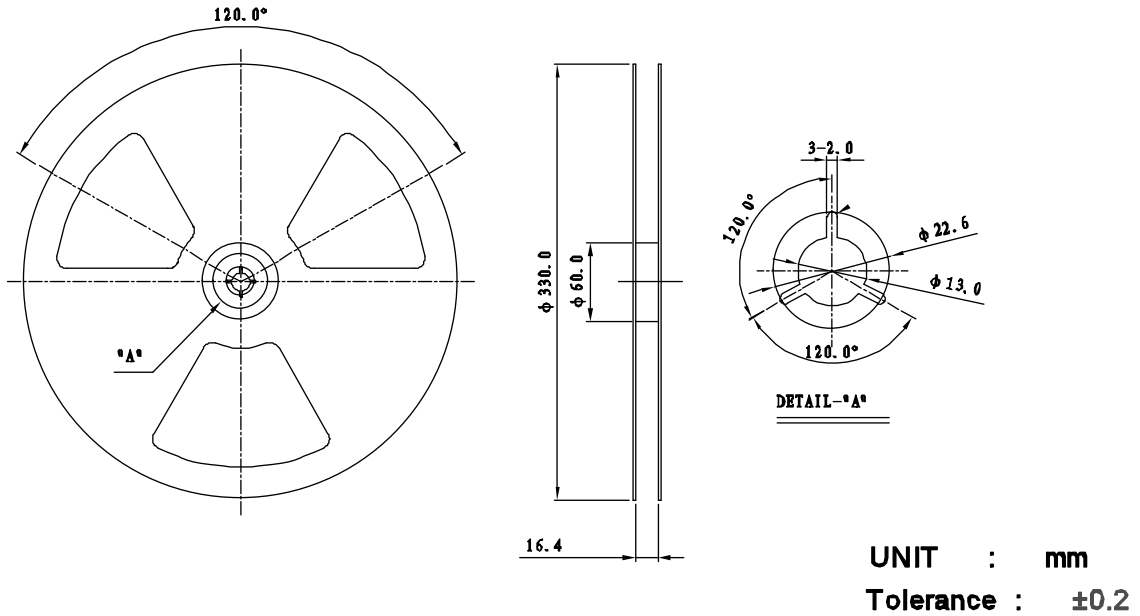
A- January through L - December

| | | |
|---------------------------------------|--------------|-------------|
| Specification for Magnetic Transducer | Page | 10/12 |
| | Revision No. | 0.0 |
| Model No. : SMT-G8530A | Drawing No. | KP3.840.968 |

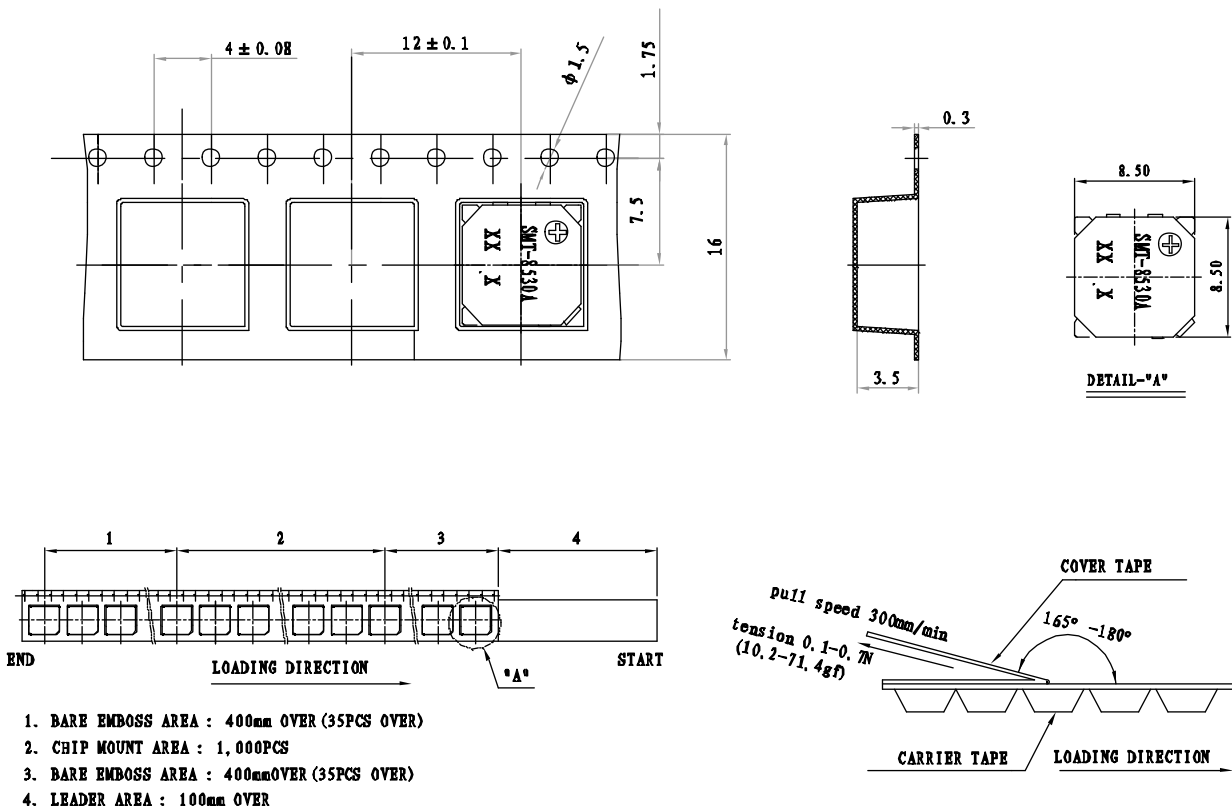
8. Packing

8-1 Taping Specifications

8-1-1. Reel Tape



8-1-2. Carrier Tape



| | | | |
|---------------------------------------|------------|--------------|-------------|
| Specification for Magnetic Transducer | | Page | 11/12 |
| | | Revision No. | 0.0 |
| Model No. : | SMT-G8530A | Drawing No. | KP3.840.968 |

9. 警告 Cautions

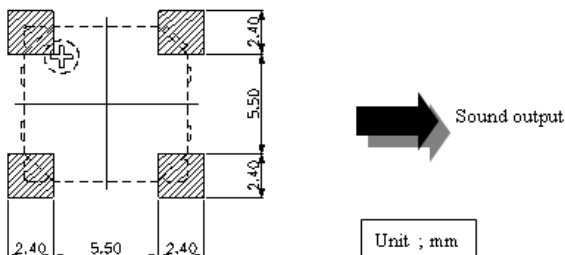
如果产品使用于下列高可靠性的装置时, 请与我们联系, 以免对人的生命, 财产和身体造成损害.

Please contact us before using our products for the undermentioned applications requiring especially high reliability in order to prevent defects which might directly cause damage to other party's life, body or property (listed below).

- (1) Aircraft equipment 飞行设备
- (2) Aerospace equipment 航天设备
- (3) Undersea equipment 潜水设备
- (4) Medical equipment 医疗设备
- (5) Transportation equipment (automobiles, trains, ships) 交通设施
- (6) Traffic signal equipment 交通信号设备
- (7) Disaster prevention/crime prevention equipment 防灾害/防犯罪设备
- (8) Data-processing equipment 数据处理设备
- (9) Applications of similar complexity or reliability requirements comparable to the applications listed in the above 以及与上述相类似或可靠性要求更高的设备

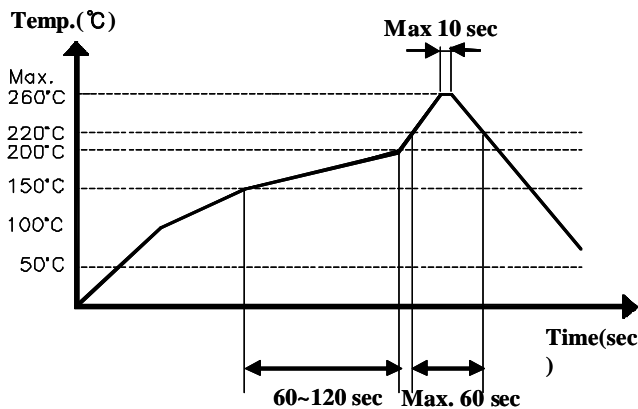
10. 注意事项 Cautions for Use

10.1. Recommend Pattern Land PCB板布局



10.2 Soldering Condition 焊接条件

■ Reflow Soldering 回流焊



■ Manual Soldering 手工焊

In case of using solder iron for soldering, the top of soldering iron's temperature should be kept less than +350°C. Moreover the soldering time should be also kept with in 3seconds.

在使用烙铁的情况下, 应注意烙铁头的温度应该保持在+350°C以下, 并且焊接时间控制在3秒内.

| | | | |
|--|--|---------------------|--------------------|
| Specification for Magnetic Transducer | | Page | 12/12 |
| | | Revision No. | 0.0 |
| | | Drawing No. | KP3.840.968 |

Model No. : **SMT-G8530A**

11. Revision

| Rev. No. | DATE | PAGE | DESCRIPTION | SIGN |
|-----------------|-------------|-------------|--------------------|-------------|
| 0.0 | 2014.11.18 | 12 | Primary | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |