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|----------|-----------------|-----------------|------------------------|
| ITEM P/N | PSPNAQ3015-100M | TEST INSTRUMENT | LCZ1068/1310BIAS/502AC |
| PRODUCT | SMD INDUCTOR | TEST FREQUENCY | 1KHz / 0.25V |

CUSTOMER :**CUSTOMER P/N :****DESCRIPTION :** SMD INDUCTOR**P/N :** PSPNAQ3015-100M**REVISION NO. :** Version:1.0**DATE :** 2017-4-9**NOTES :** STANDARD

| | |
|-------------------|--------------|
| DOCUMENTED | |
| APPROVED | Yuki |
| CHECKED | Ben |
| PREPARED | Peter |

CUSTOMER APPROVAL

company seals



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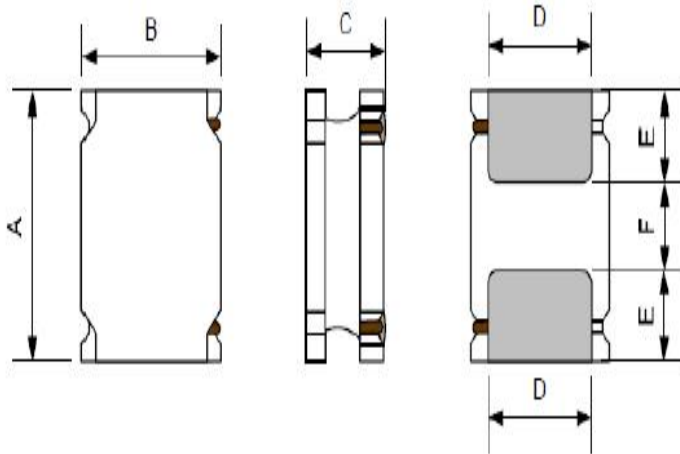
NO.28 ho-cheng RD, bade city, taoyuan,
taiwan

COIL SPECIFICATION

RoHS
COMPLIANT

| | | | |
|----------|-----------------|-----------------|------------------------|
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PACKING DIMENSIONS (mm)



| 3015 | Dimensions |
|------|------------|
| A | 3.00±0.2 |
| B | 3.00±0.2 |
| C | 1.50Max. |
| D | 2.50±0.2 |
| E | 0.75±0.2 |
| F | 1.50±0.2 |

EXPLANATION OF PART NUMBERS

| | | | |
|--------------------------------------|----------------------------|---|---------------------------------------|
| PSPNAQ <u>Serial Codes</u> | 3015 <u>Size</u> | - | 100M <u>Inductance Code</u> |
|--------------------------------------|----------------------------|---|---------------------------------------|

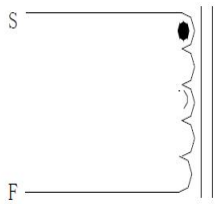
ELECTRICAL CHARACTERISTICS

| ITEM P/N | @ 25 °C Ambient Temperature | | | | |
|---------------------|-----------------------------|-----------|------------------------------|---------------------------|----------------|
| | INDUCTANCE | | I _{rms} (A) Max. | I _{sat} (A) Max. | DCR (mΩ) ±30%. |
| | Lo (μH) | TOLERANCE | | | |
| PSPNAQ30 15-100M | 10.00 | ±20% | 0.86 | 0.97 | 225.0 |

- ⊙ All test Data is referenced to 25°C ambient
- ⊙ Typical Heat Rating DC Current would cause an approximately ΔT of 40°C
- ⊙ Typical Saturation DC Current would cause Lo to drop approximately 35%
- ⊙ Operation Temperature Range : -40°C ~ 125°C
- ⊙ The Part temperature (ambient + ΔT) should not exceed 125°C under worst case operating conditions.
- ⊙ Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all effect the part temperature. Part temperature should be verified in the end application.

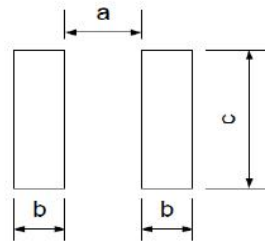
| | | | |
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SCHEMATIC



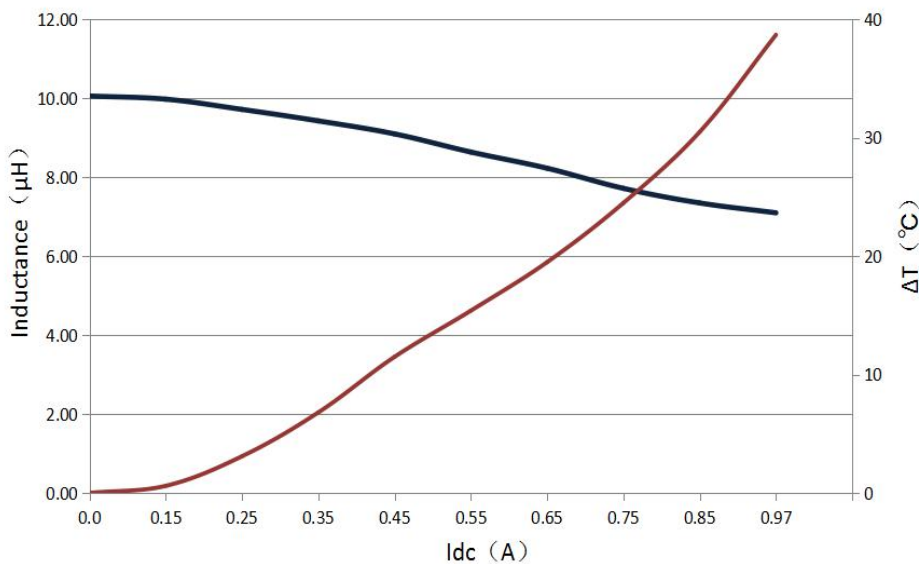
"●" 表示起线

Recommended Land Pattern

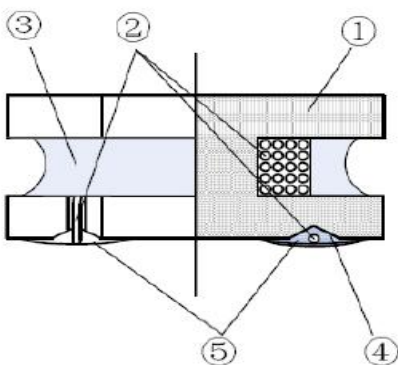


| | |
|----|---------|
| a. | 1.5Typ. |
| b. | 0.8Typ. |
| c. | 2.7Typ. |

PERFORMANCE CURVES



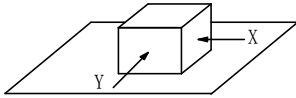
Construction and materials

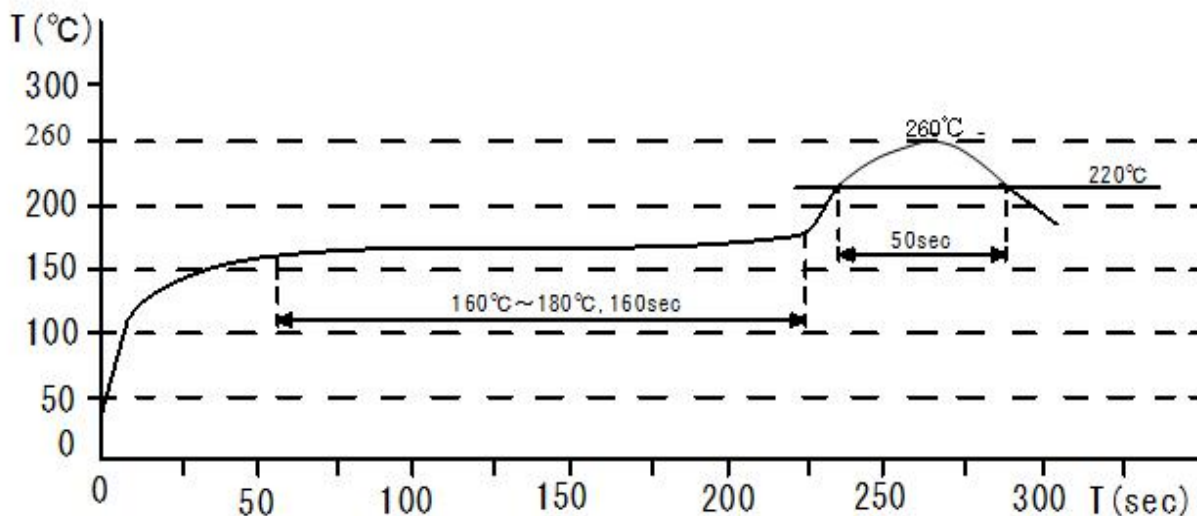


| Code | Part Name | Material Name |
|------|--------------------|--|
| 1 | Ferrite Core | Ni-Zn Ferrite |
| 2 | Wire | Polyurethane system enameled copper wire |
| 3 | Magnetic Glue | Epoxy resin and magnetic powder |
| 4 | Plating Electrodes | Ag Ni Sn |
| 5 | Outer Electrodes | Top surface solder coating Sn, Ag, Cu |

| | | | |
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RELIABILITY TEST:

| | |
|-----------------------------|---|
| Storage Temperature range | -40°C ~ +125°C |
| Operating temperature range | -40°C ~ +125°C (Including coil's self temperature rise) |
| External appearance | No external defects can be found in the visual inspection. |
| Electrode strength | No electrode detachment should be found when the device is pushed in two directions of X and Y with the force of 10.0N for 10±2 seconds after soldering between copper plate and the electrodes. (Refer to figure at right) <div style="text-align: center;">  </div> |
| Vibration test | Inductance deviation is within ±3.0% after 1 hour sweeping vibration in each three directions, namely, forward and backward, up and down, right and left. The frequency is 10~55~10Hz and the amplitude of 1 minute cycle is 1.5mm PP. |
| Humidity test | Inductance deviation is within ±5.0% after 96±4 hours test under the condition of relative humidity of 90~95% and temperature of 40±2°C and 1 hour storage under room ambient conditions after the device is wiped with dry cloth. |

Recommended reflow condition

| | | | |
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TEST DATA

| SPEC No. | A (mm) | B (mm) | C (mm) | DCR ±30%(mΩ) | INDUCTANCE | |
|-------------|-----------|-----------|-----------|-------------------|------------|---------------------|
| | 3.00±0.2 | 3.00±0.2 | 1.50Max. | | L(0)±20% | 0.97 A ≈65% L(0) |
| 1 | 3.02 | 3.00 | 1.42 | 231.0 | 10.10 | PASS |
| 2 | 3.01 | 2.99 | 1.45 | 232.0 | 10.08 | PASS |
| 3 | 3.02 | 3.01 | 1.45 | 238.0 | 10.09 | PASS |
| 4 | 3.03 | 3.02 | 1.44 | 231.0 | 10.20 | PASS |
| 5 | 3.02 | 3.01 | 1.45 | 229.0 | 9.86 | PASS |
| 6 | 3.02 | 3.00 | 1.39 | 220.0 | 9.89 | PASS |
| 7 | 3.05 | 3.01 | 1.42 | 227.0 | 9.97 | PASS |
| 8 | 3.02 | 2.99 | 1.41 | 225.0 | 10.03 | PASS |
| 9 | 3.01 | 3.01 | 1.42 | 226.0 | 10.35 | PASS |
| 10 | 3.05 | 3.03 | 1.45 | 219.0 | 10.01 | PASS |
| \bar{X} | 3.03 | 3.01 | 1.43 | 227.80 | 10.058 | |
| R | 0.04 | 0.04 | 0.06 | 19.00 | 0.490 | |

⊙ All test Data is referenced to 25°C ambient



ANNOUNCEMENTS

产品注意事项

使用本产品时，请注意以下事项

- ◎ 产品保存期限为12个月，保存条件：温度5~40℃，湿度10~80%RH以内，超过保存期限可能会使产品端子电极发生氧化。
- ◎ 请勿在极端环境下使用和保存（高盐，强酸，强碱，强辐射等）。
- ◎ 产品焊接前，请进行预热；预热温度与焊接温度之间温差建议控制在150℃以内。
- ◎ 产品焊接后需重新拆卸焊接修正时，请遵循规格书规定的条件范围；过高的加热温度以及反复的拆卸可能会导致产品失效。
- ◎ 产品焊接到线路板后，请注意不可因线路板整体变形或局部变形而施加给电感剩余应力，这可能会导致电感发生破裂，脱落，以致失效。
- ◎ 产品请勿接触清洗剂，酒精等液体，这会侵蚀产品本体，从而导致产品失效。
- ◎ 产品通电后温度会随电流的增大而上升，设计时请务必考虑留有余量。
- ◎ 过高的静电会对产品产生永久性损害，请注意静电防护。
- ◎ 产品通电过程请勿触摸产品任何部位，防止触电。
- ◎ 本产品作为磁性产品，设计时请务必考虑周边元器件与本产品可能产生的相互影响。
- ◎ 本产品适用于一般电子设备，如：AV设备，通信设备，家电产品，娱乐设备，计算机设备，个人设备，办公设备，计测设备，工业机器人等。且该一般电子设备需在常规的操作和使用方法环境下使用。对于需要高度安全性和可靠性的，或者因本产品失效造成设备故障，误操作，运转不良等危及到人的生命身体及财产安全，以及对社会产生较大不良影响的特殊用途，设计使用前务必同本公司沟通，设计使用者如在未取得我司书面同意状况下使用造成任何后果，我司不予承担。特殊用途包含但不限定如下清单：

1 军用设备

8 关系到国防安全的设备

2 运输设备（汽车，轨道交通产品，船舶等）

9 防灾赈灾设备

3 航空，航天设备

10 各种安规设备

4 发电控制设备

11 紧急救护设备

5 核动力相关设备

12 其他被认定为特殊用途的设备

6 爆炸引燃控制设备

7 交通控制设备

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[CR32NP-8R2MC](#) [CR43NP-390KC](#) [CR43NP-560KC](#) [CR43NP-680KC](#) [CR54NP-181KC](#) [CR54NP-470LC](#) [CR54NP-820KC](#) [CR54NP-8R5MC](#)

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[53824SNLT](#) [PE-62892NL](#) [PE-92100NL](#) [PG0434.801NLT](#) [PG0936.113NLT](#) [PM06-2N7](#) [PM06-39NJ](#) [HC2LP-R47-R](#) [HC2-R47-R](#) [HC3-2R2-](#)

[R](#)