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|----------|----------------------|-----------------|-----------------------------|
| ITEM P/N | PSPMAA1050H-680M-ANP | TEST INSTRUMENT | Zentech-3305 / Zentech502BC |
| PRODUCT | SMD INDUCTOR | TEST FREQUENCY | 100 kHz / 1.0V |

CUSTOMER :

CUSTOMER P/N :

DESCRIPTION : SMD INDUCTOR

P/N : PSPMAA1050H-680M-ANP

REVISION NO. : Version:1.0

DATE : 2019-9-24

NOTES : STANDARD

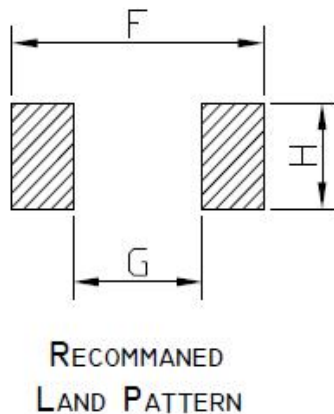
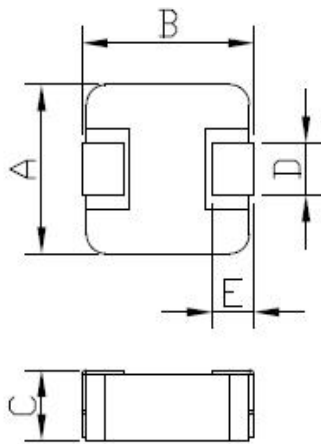
| | |
|-------------------|--------------|
| DOCUMENTED | |
| APPROVED | Yuki |
| CHECKED | Ben |
| PREPARED | Peter |

CUSTOMER APPROVAL

company seals

| | | | |
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PACKING DIMENSIONS (mm)



| 1050H | Dimensions |
|-------|------------|
| A | 10.2 ± 0.3 |
| B | 11.0 ± 0.5 |
| C | 5.0MAX |
| D | 3.0 ± 0.3 |
| E | 2.0 ± 0.5 |
| F | 11.8Ref. |
| G | 6.00Ref. |
| H | 3.50Ref. |

EXPLANATION OF PART NUMBERS

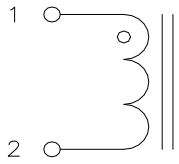
| | | | | | |
|--------------------------------------|-----------------------------|---|---------------------------------------|---|----------------------------------|
| PSPMAA <u>Serial Codes</u> | 1050H <u>Size</u> | - | 680M <u>Inductance Code</u> | - | ANP <u>Description</u> |
|--------------------------------------|-----------------------------|---|---------------------------------------|---|----------------------------------|

ELECTRICAL CHARACTERISTICS

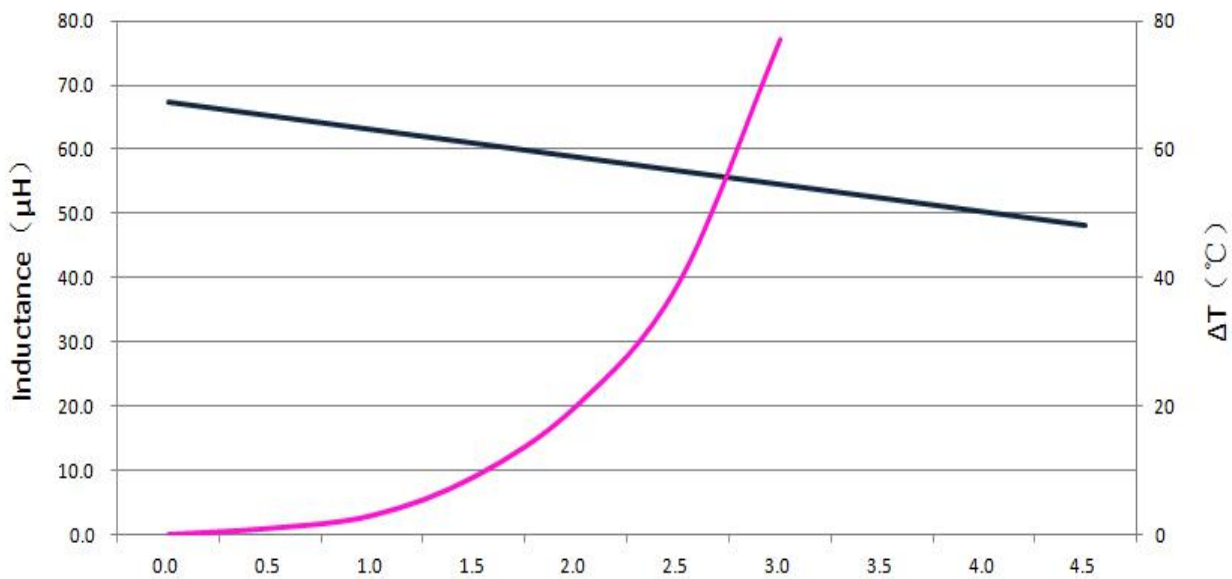
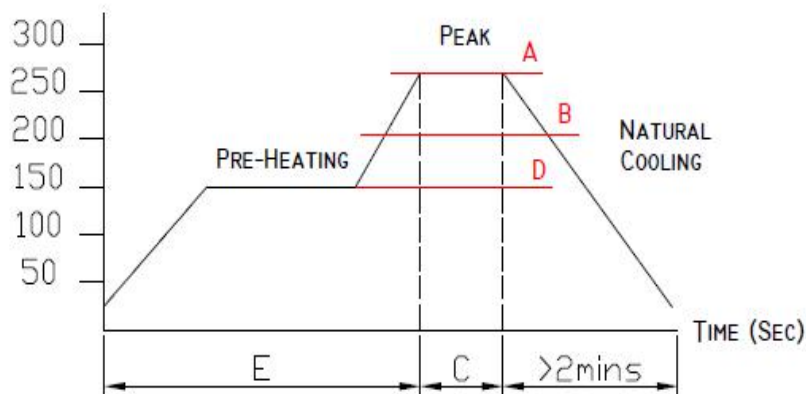
| ITEM P/N | @ 25 °C Ambient Temperature | | | | | |
|----------------------|-----------------------------|-----------|-----------------------------|------------------------------|---------------------|------------------|
| | INDUCTANCE | | I _{rms} (A)Max. | I _{sat} (A) Max. | DCR (mΩ) Typical | DCR (mΩ) Max. |
| | Lo (μH) | TOLERANCE | | | | |
| PSPMAA1050H-680M-ANP | 68.00 | ±20% | 2.5 | 4.5 | 155.0 | 195.0 |

- ⊙ 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 Diagram:**MARKING**

- ⊙ Inductor Contents ONE (1) Set(s) of Coil
- ⊙ DC/AC Current Shall Be Introduced By Any One of Two Pads

PERFORMANCE CURVES:**RECOMMENDED SOLDERING TEMP. GRAPH**

| | |
|---|------------|
| A | 260°C |
| B | 230°C |
| C | 10 Sec |
| D | 150°C |
| E | 60~240 Sec |

CHARACTERISTICS



| | | | |
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MECHANICAL RELIABILITY

| TEST | Specification & Requirement | Method Used |
|---------------|--|---|
| Solderability | The surface of terminal/pin tested shall be covered with new solder by 95% | Solder heat proof: Preheating: 180 ±10°C 90 seconds Soldering: 255 ±5°C for 3 ±1 sec |
| Shock | Inductance change within ± 5% Without mechanical damage | Drop down with 981m/s ² (100G) shock Attitude upon a rubber block method shock testing machinem, 3 tests. |
| Vibration | Inductance change within ± 5% Without mechanical damage | Vibration frequency: 10Hz to 55Hz to 10Hz 60 seconds cycle Vibration time: 2 hours |

ENDURANCE RELIABILITY

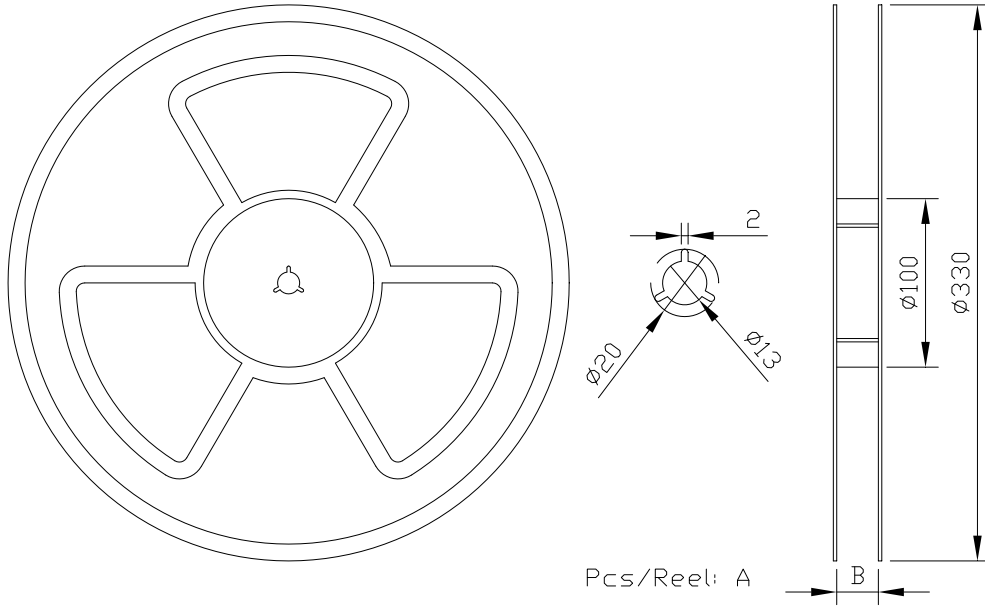
| TEST | Specification & Requirement | Method Used |
|---------------------|---|--|
| Thermal Shock | Inductance change within ± 5% Without mechanical damage | -25°C, (30 mins) → room temp. (5 mins) → 125°C, (30 mins) → room temp. (5 mins) 100 cycles |
| Heat Resistance | Inductance change within ± 5% Without mechanical damage | Apply IDC current @ 85°C ambient Duration: 1000 hrs |
| Humidity Resistance | Inductance change within ± 5% Without mechanical damage | Apply IDC current @ 60°C ambient Humidity: 90~95% Duration: 1000 hrs |
| Low Temp. Storing | Inductance change within ± 5% Without mechanical damage | Storing Temp. -25 ±2 °C for total 1,000 +4/-0 hours |
| High Temp. Storing | Inductance change within ± 5% Without mechanical damage | Storing Temp. 125 ±2 °C for total 1,000 +4/-0 hours |

PACKING FOR SMD

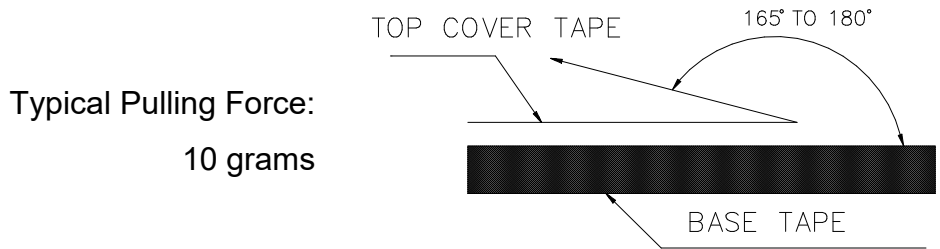
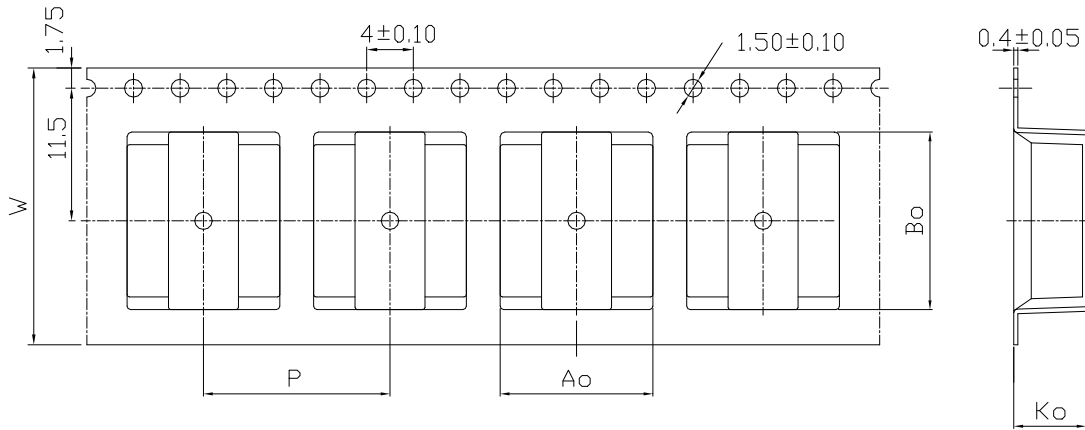


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CARRIERTAPEING REEL & CARRIER MATERIALS (PAPER PLASTICS) UNIT : (mm)



| A | B | W | P | Ao | Bo | Ko |
|-----|----|----|----|----------|------------|--------|
| 800 | 25 | 24 | 16 | 11.0±0.1 | 12.6 ± 0.1 | 5.1Typ |



TESTING REPORT



| | | | |
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TEST DATA

| SPEC No. | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | | | DCR Max(mΩ) | INDUCTANCE | |
|-------------|------------|------------|-----------|-----------|-----------|--|--|------------------|------------|--------------------|
| | 10.2 ± 0.3 | 11.0 ± 0.5 | 5.0MAX | 3.0 ± 0.3 | 2.0 ± 0.5 | | | | L(0)±20% | 4.5 A ≈70% L(0) |
| 1 | 10.09 | 11.14 | 4.89 | 3.03 | 2.05 | | | 175.00 | 68.11 | PASS |
| 2 | 10.11 | 11.17 | 4.84 | 3.01 | 2.04 | | | 168.00 | 68.24 | PASS |
| 3 | 10.12 | 11.13 | 4.91 | 3.02 | 2.01 | | | 170.00 | 68.11 | PASS |
| 4 | 10.09 | 11.21 | 4.89 | 3.02 | 1.97 | | | 169.00 | 68.71 | PASS |
| 5 | 10.11 | 11.14 | 4.94 | 3.01 | 2.02 | | | 171.00 | 68.41 | PASS |
| 6 | 10.11 | 11.16 | 4.94 | 3.01 | 2.04 | | | 168.00 | 68.21 | PASS |
| 7 | 10.11 | 11.17 | 4.93 | 3.01 | 2.01 | | | 172.00 | 68.17 | PASS |
| 8 | 10.12 | 11.18 | 4.94 | 3.02 | 2.01 | | | 175.00 | 68.14 | PASS |
| 9 | 10.09 | 11.14 | 4.92 | 3.01 | 1.99 | | | 169.00 | 68.15 | PASS |
| 10 | 10.09 | 11.21 | 4.94 | 3.02 | 2.03 | | | 175.00 | 68.51 | PASS |
| \bar{X} | 10.10 | 11.17 | 4.91 | 3.02 | 2.02 | | | 171.20 | 68.28 | |
| R | 0.03 | 0.08 | 0.10 | 0.02 | 0.08 | | | 7.00 | 0.60 | |

© 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，检测设备，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于如下清单：

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