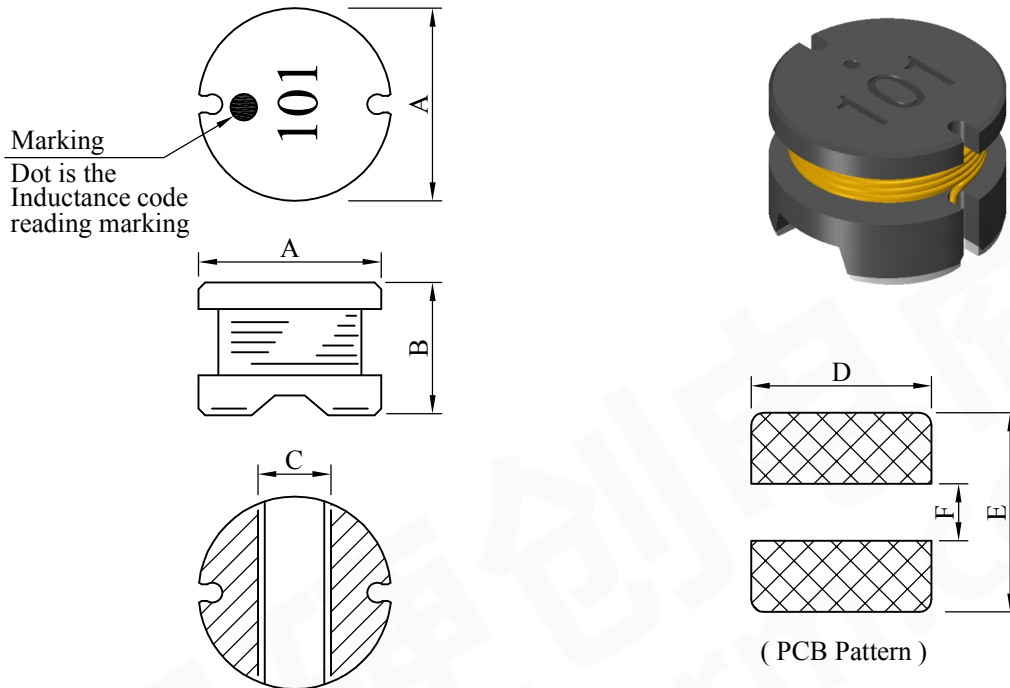


SPECIFICATION FOR APPROVAL

REF. :

| | | | | | |
|------------|--------------------|---------------|-------------------------|------|---|
| PROD. NAME | SMD Power Inductor | ABC'S DWG NO. | <u>SR0603□□□□L□-□□□</u> | | |
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I . Configuration and dimensions :



Unit : mm

| A | B | C | D | E | F |
|-----------|-----------|-----------|-----------|-----------|-----------|
| 5.60 ±0.2 | 3.70 ±0.3 | 2.30 ref. | 5.80 ref. | 6.00 ref. | 1.70 ref. |

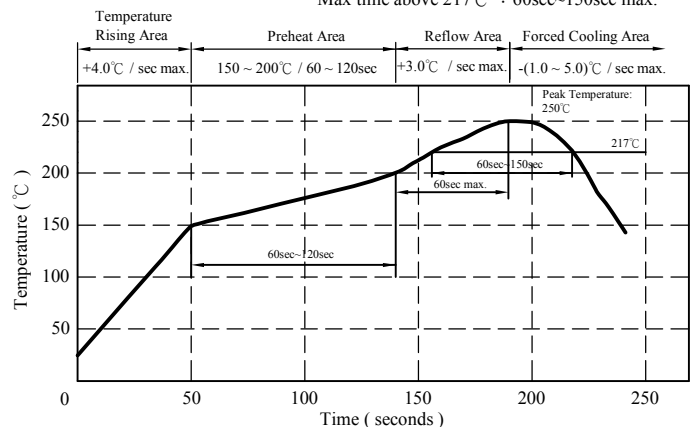
II . Description :

- a . Ferrite drum core construction.
- b . Enamelled copper wire : H class
- c . Product weight : 0.350g (ref.)
- d . Moisture sensitivity Level 1
- e . Products comply with RoHS' requirements
- f . Halogen free

Peak Temp : 250°C max.
Max. Peak Temp - 5°C : 30sec max.
Max time above 217°C : 60sec~150sec max.

III . General specification :

- a . Storage temp. : -40°C ----+125°C
- b . Operating temp. : -40°C ----+125°C
(Temp. rise included)
- c . Resistance to solder heat : 260°C .10 secs.



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SPECIFICATION FOR APPROVAL

REF. :

| | | | | | |
|------------|--------------------|---------------|-------------------------|------|---|
| PROD. NAME | SMD Power Inductor | ABC'S DWG NO. | <u>SR0603□□□□L□-□□□</u> | | |
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IV . Electrical characteristics :

| DWG No. | Inductance (μH) | Q ref. | Test Freq. (Hz) | | SRF (MHz) nom. | RDC (Ω) max. | IDC (A) max. |
|-------------------------|-----------------|--------|-------------------|--------|------------------|----------------|----------------|
| | | | L | Q | | | |
| <u>SR06031R5ML□-□□□</u> | 1.5±20% | 24 | 1k | 7.960M | 85.0 | 0.040 | 3.00 |
| <u>SR06032R5ML□-□□□</u> | 2.5±20% | 21 | 1k | 7.960M | 74.0 | 0.045 | 2.35 |
| <u>SR06033R3ML□-□□□</u> | 3.3±20% | 21 | 1k | 7.960M | 68.0 | 0.048 | 2.20 |
| <u>SR06033R9ML□-□□□</u> | 3.9±20% | 22 | 1k | 7.960M | 62.0 | 0.050 | 2.10 |
| <u>SR06034R7ML□-□□□</u> | 4.7±20% | 20 | 1k | 7.960M | 56.0 | 0.066 | 1.80 |
| <u>SR06035R0ML□-□□□</u> | 5.0±20% | 19 | 1k | 7.960M | 50.0 | 0.070 | 1.60 |
| <u>SR06036R8ML□-□□□</u> | 6.8±20% | 19 | 1k | 7.960M | 44.0 | 0.110 | 1.38 |
| <u>SR06037R5ML□-□□□</u> | 7.5±20% | 19 | 1k | 7.960M | 38.0 | 0.120 | 1.29 |
| <u>SR0603100ML□-□□□</u> | 10.0±20% | 24 | 1k | 2.520M | 34.0 | 0.150 | 1.14 |
| <u>SR0603120ML□-□□□</u> | 12.0±20% | 23 | 1k | 2.520M | 30.0 | 0.160 | 1.02 |
| <u>SR0603150ML□-□□□</u> | 15.0±20% | 22 | 1k | 2.520M | 28.0 | 0.180 | 0.93 |
| <u>SR0603180ML□-□□□</u> | 18.0±20% | 23 | 1k | 2.520M | 24.0 | 0.250 | 0.82 |
| <u>SR0603220ML□-□□□</u> | 22.0±20% | 20 | 1k | 2.520M | 20.0 | 0.275 | 0.75 |
| <u>SR0603270ML□-□□□</u> | 27.0±20% | 19 | 1k | 2.520M | 19.0 | 0.300 | 0.67 |
| <u>SR0603330KL□-□□□</u> | 33.0±10% | 23 | 1k | 2.520M | 15.0 | 0.450 | 0.61 |
| <u>SR0603390KL□-□□□</u> | 39.0±10% | 22 | 1k | 2.520M | 13.0 | 0.460 | 0.56 |
| <u>SR0603470KL□-□□□</u> | 47.0±10% | 20 | 1k | 2.520M | 13.0 | 0.550 | 0.52 |
| <u>SR0603560KL□-□□□</u> | 56.0±10% | 17 | 1k | 2.520M | 12.0 | 0.615 | 0.48 |
| <u>SR0603680KL□-□□□</u> | 68.0±10% | 17 | 1k | 2.520M | 12.0 | 0.720 | 0.44 |
| <u>SR0603820KL□-□□□</u> | 82.0±10% | 15 | 1k | 2.520M | 11.0 | 0.840 | 0.40 |
| <u>SR0603101KL□-□□□</u> | 100.0±10% | 28 | 1k | 796k | 9.6 | 0.950 | 0.38 |
| <u>SR0603121KL□-□□□</u> | 120.0±10% | 27 | 1k | 796k | 8.1 | 1.100 | 0.36 |
| <u>SR0603151KL□-□□□</u> | 150.0±10% | 28 | 1k | 796k | 7.5 | 1.430 | 0.32 |
| <u>SR0603181KL□-□□□</u> | 180.0±10% | 26 | 1k | 796k | 6.9 | 1.600 | 0.30 |
| <u>SR0603221KL□-□□□</u> | 220.0±10% | 26 | 1k | 796k | 5.5 | 2.000 | 0.26 |
| <u>SR0603271KL□-□□□</u> | 270.0±10% | 26 | 1k | 796k | 4.9 | 2.400 | 0.24 |
| <u>SR0603331KL□-□□□</u> | 330.0±10% | 28 | 1k | 796k | 4.7 | 3.200 | 0.20 |
| <u>SR0603391KL□-□□□</u> | 390.0±10% | 28 | 1k | 796k | 4.1 | 3.400 | 0.18 |
| <u>SR0603471KL□-□□□</u> | 470.0±10% | 29 | 1k | 796k | 3.5 | 4.550 | 0.15 |

- 1). Electrical specifications at 25°C
- 2). IDC base on Temp. rise 40°C max. & ΔL/L0A=10% max.

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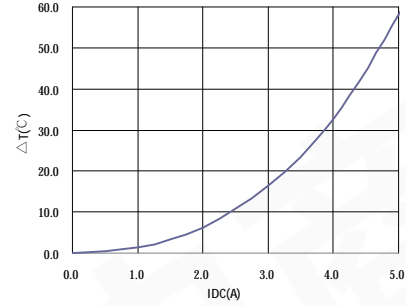
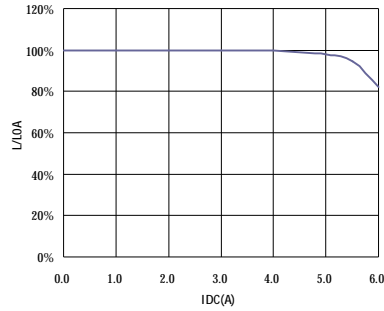
SPECIFICATION FOR APPROVAL

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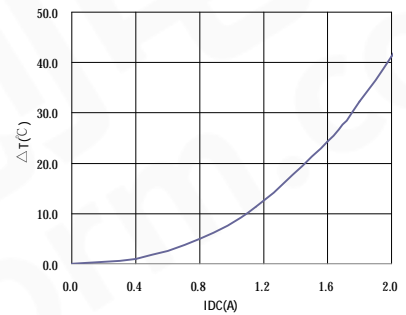
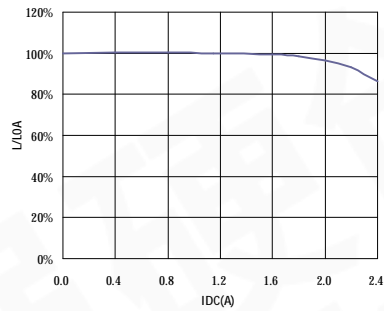
| | | | | | |
|---------------|--------------------|---------------|-------------------------|------|---|
| PROD. NAME | SMD Power Inductor | ABC'S DWG NO. | <u>SR0603□□□□L□-□□□</u> | | |
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V . Curve :

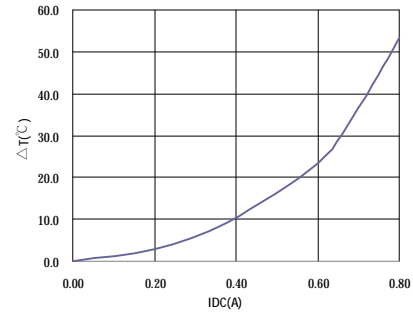
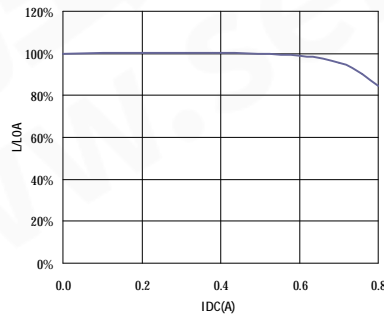
SR06031R5ML□



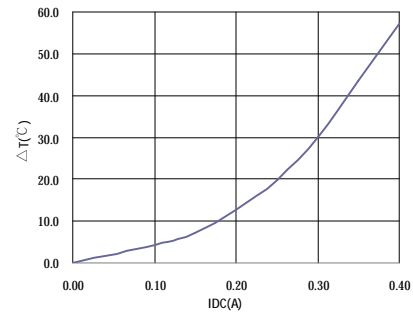
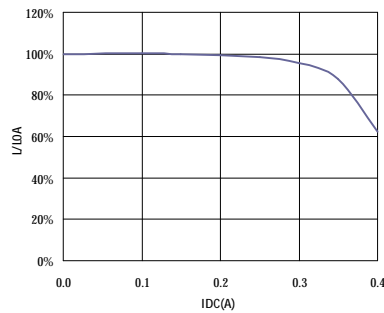
SR0603100ML□



SR0603101KL□



SR0603471KL□



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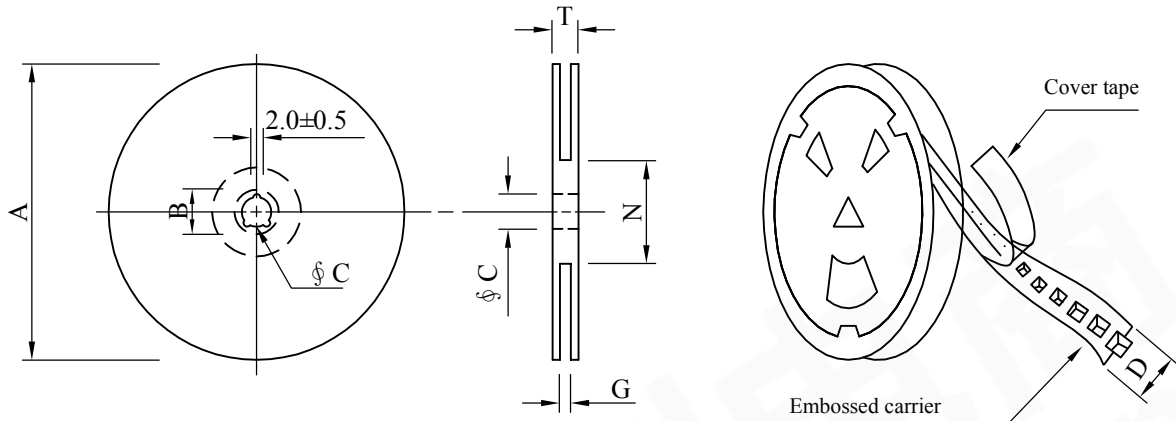
SPECIFICATION FOR APPROVAL

REF. :

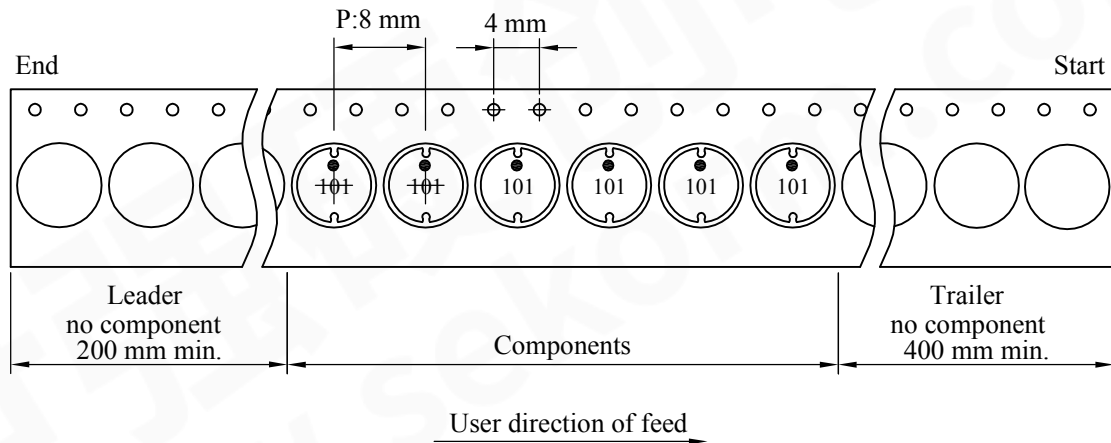
| | | | | | |
|------------|--------------------|---------------|------------------|------|---|
| PROD. NAME | SMD Power Inductor | ABC'S DWG NO. | SR0603□□□□L□-□□□ | | |
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VI . Packaging information :

(1) Configuration



※Carrier tape width : D



(2) Dimensions

Unit:mm

| Style | A | B | C | D | G | N | T |
|---------|-----|--------|--------|----|------------------|------------------|------|
| 07 - 12 | 178 | 21±0.8 | 13 | 12 | 14 ⁺⁰ | 50 ⁻⁰ | 16.5 |
| 13 - 12 | 330 | 21±0.8 | 13±0.5 | 12 | 14 ⁺⁰ | 50 ⁻⁰ | 18.4 |

(3) Q'TY & G.W. Per package

| Code | Inner : Reel | | | Outer : Carton | | |
|------|--------------|----------|---------|----------------|-----------|--------------|
| | Q'TY (pcs) | G.W. (g) | Style | Q'TY (pcs) | G.W. (kg) | Size (cm) |
| B | 400 | 240 | 07 - 12 | 16,000 | 11.0 | 42 x 41 x 24 |
| C | 1,500 | 880 | 13 - 12 | 12,000 | 8.3 | 38 x 37 x 22 |

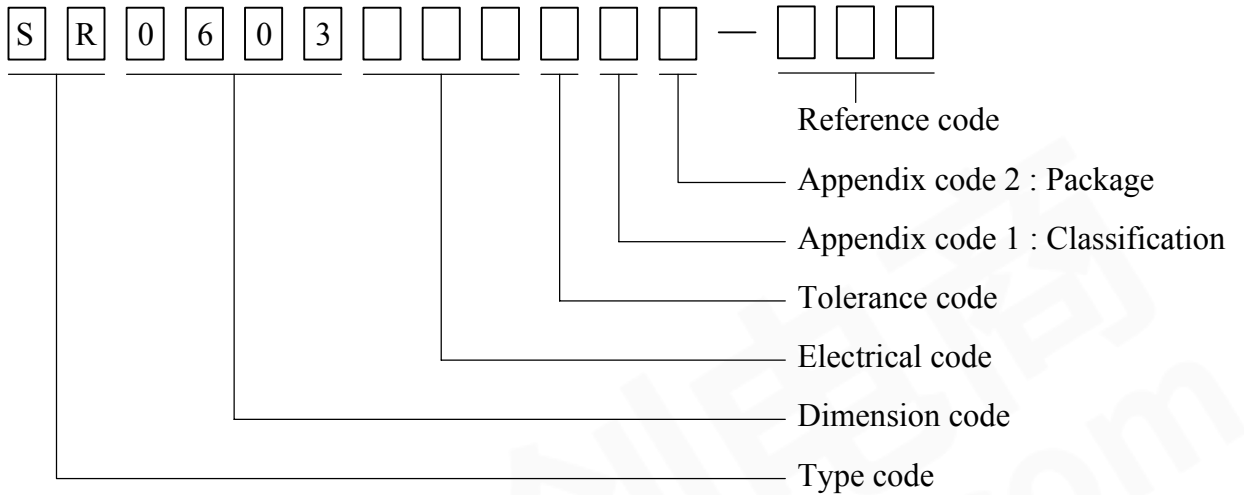
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SPECIFICATION FOR APPROVAL

REF. :

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|------------|--------------------|---------------|-------------------------|------|---|
| PROD. NAME | SMD Power Inductor | ABC'S DWG NO. | <u>SR0603□□□□L□-□□□</u> | | |
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VII . Drawing number expression :



Appendix code 1 : Product Classification

Appendix code 2 : Package Information

| Code | Inner package | Cover tape | Carrier tape | Bag | Package Q'TY | Remark |
|------|---------------------|------------|--------------|------------|--------------|--------|
| B | T /R (Reel package) | UCT | Antistatic | Antistatic | 400 pcs | |
| C | T /R (Reel package) | UCT | Antistatic | Antistatic | 1,500 pcs | |

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REF. :

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|------------|--------------------|---------------|------------------|------|---|
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VIII . Reliability test :

| Item | Reference documents | Test Condition | Test Specification |
|-------------------------------------|--|---|---|
| 1.High Temperature Exposure | MIL-STD-202 Method 108 | 1.Temperature: 125±2℃ 2.Time:96±2 hours. | 1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%. |
| 2.Temperature Cycling | JESD22-A 104 | 1.Temperature: -40℃ ~ +125℃ 2.Number of cycle:100 cycles. 3.Dwell time:30 minutes | 1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%. |
| 3.Biased Humidity Test | MIL-STD-202 Method 103 | 1.Temperature : 85±2 ℃ 2.Humidity: 85% RH. 3.Time:96±2 Hours | 1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%. |
| 4.Operational Life | JESD22-A 108 | 1.Temperature: 125℃ (Temp. rise included) 2.Time:96±2 hours. 3.Rated current | 1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%. |
| 5.External Visual | JESD22-B 101 & MIL-STD-883 Method 2009 | Inspect product constructions, marking and workmanship. | 1.No pollution on the surface of products. 2.Clear marking. 3.No crack. |
| 6.Physical Dimensions | JESD22-B 100 | Verify physical dimensions to the applicable product detail specification. | Per product specification standard |
| 7.Resistance to solvents | MIL-STD-202 Method 215 | Immerse into solvent for 3±0.5 minutes & brush 10 times for 3 cycles. | 1.No body change in apperance. 2.No marking blurred. 3.Inductance shall not change more than ±10%. |
| 8.Vibration Test | MIL-STD-202 Method 204 | 1.Frequency and Amplitud : 10-2000-10 Hz, 1.5 mm. 2.Direction:X, Y, Z 3.Test duration:2 hours for each direction, 6 hours in total. | 1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%. |
| 9.Resistance To Soldering Heat Test | MIL-STD-202 Method 210 & J-STD020D.1 | 1.Highest temperature : 250±5℃. 2.Time (temp. ≥ 217℃) : 60~150 Seconds. 3.IR reflow times : 3 times. | 1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%. |
| 10.Saturation Current | JIS C 6436 & User SPEC. | 1.Applied rated current for 5 seconds. 2.Saturation current | Inductance shall not drop more than 10% max. |
| 11.Over load | JIS C 6436 & User SPEC. | 1.Applied one and half rated current for a period of 5 minutes. 2.Rated current | No electrical or mechanical damage |
| 12.Temperature Rise Current | JIS C 6436 & User SPEC. | 1.Applied rated current for 10 minutes. 2.Temperature measure by digital surface thermometer. 3.Irms current | Surface temperature rise is less than 40℃ max. |
| 13.Solderability Test | J-STD-002 & JESD22-B 102 | 1.Baking in pre-testing : 150±5℃ / 16Hours±30 min. 2.Peak temperature : 240±5℃ 3.Time (temp. ≥ 217℃) : 60~150 seconds. 4.IR reflow times : 1 time. | More than 95% soldering coverage min on terminations. |
| 14.Electrical Characteriazation | MIL-STD-202 Method 304 & User SPEC. | 1.Operating temperature : -40℃~125℃ 2.Room temperature : 25℃. | 1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%. |
| 15.Drop | CNS-C6354 & GB/T 2423.8 | 1.Products shall be mounted on SPEC. pcb and dropped down from a heigh of 1m 2.Drop total time : 6 time (Every side ofsample drop 2 times) | 1. Adhesion on PCB shall be enough. 2. Product appearance shall not break. 3. No electrical damage. |
| 16.Terminal Strength Test | IEC 60068-2-21 | 1.Apply push force to samples mounted on PCB. 2.Force of 1.8 kg for 60±1 seconds. | After test, inductors shall be no mechanical damage. |

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