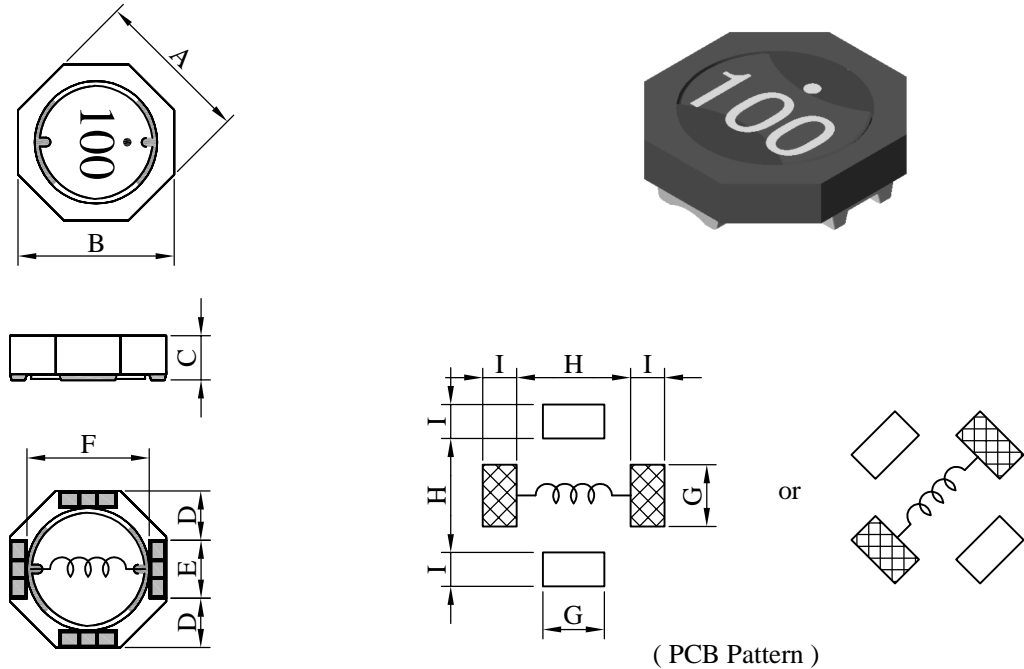


SPECIFICATION FOR APPROVAL

REF. :

| | | | | | |
|---------------|-----------------------------|---------------|------------------|------|---|
| PROD. NAME | Shielded SMD Power Inductor | ABC'S DWG NO. | SU6018□□□□F□-□□□ | | |
| | | REV. | 20150709-D | PAGE | 1 |

I . Configuration and dimensions :



(PCB Pattern)

Unit : m/m

| A | B | C | D | E | F | G | H | I |
|------------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| 6.20 ±0.30 | 6.50 ±0.30 | 1.80 ±0.20 | 2.15 typ. | 2.20 typ. | 4.90 typ. | 2.40 ref. | 4.90 ref. | 1.10 ref. |

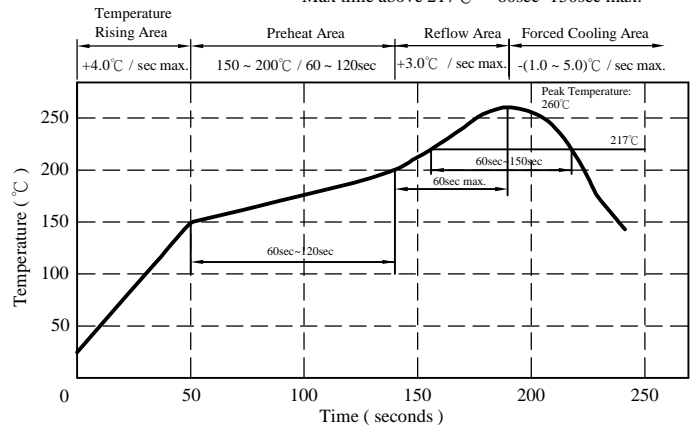
II . Description :

- a . Ferrite drum core construction.
- b . Magnetically shielded.
- c . Enamelled copper wire : F 、 H class
- d . Product weight : 0.20 g (ref.)
- e . Moisture sensitivity Level 1
- f . Products comply with RoHS' requirements
- g . Halogen free available

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.

Peak Temp : 260°C max.
Max. Peak Temp - 5°C : 30sec max.
Max time above 217°C : 60sec~150sec max.



SPECIFICATION FOR APPROVAL

REF. :

| | | | | | |
|------------|-----------------------------|---------------|------------------|------|---|
| PROD. NAME | Shielded SMD Power Inductor | ABC'S DWG NO. | SU6018□□□□F□-□□□ | | |
| | | REV. | 20150709-D | PAGE | 2 |

IV . Electrical characteristics :

| DWG No. | Inductance (μ H) | Q ref. | Test Freq. (Hz) | | RDC (m Ω) | | SRF (MHz) typ. | Irms (mA) typ. | Isat (mA) typ. |
|------------------|--------------------------|-----------|----------------------|-------|-----------------------|------|------------------------|------------------------|------------------------|
| | | | L | Q | typ. | max. | | | |
| SU60181R2YF□-□□□ | 1.2 \pm 30% | 8 | 100k | 7.96M | 19 | 25 | 130 | 3600 | 2800 |
| SU60181R8YF□-□□□ | 1.8 \pm 30% | 8 | 100k | 7.96M | 22 | 28 | 90 | 3000 | 2300 |
| SU60183R3YF□-□□□ | 3.3 \pm 30% | 8 | 100k | 7.96M | 28 | 36 | 60 | 2500 | 1700 |
| SU60184R7YF□-□□□ | 4.7 \pm 30% | 8 | 100k | 7.96M | 32 | 42 | 50 | 2200 | 1400 |
| SU60186R8YF□-□□□ | 6.8 \pm 30% | 8 | 100k | 7.96M | 46 | 60 | 40 | 1900 | 1200 |
| SU6018100YF□-□□□ | 10.0 \pm 30% | 12 | 100k | 2.52M | 68 | 88 | 30 | 1700 | 1000 |
| SU6018150YF□-□□□ | 15.0 \pm 30% | 12 | 100k | 2.52M | 100 | 130 | 24 | 1500 | 800 |
| SU6018220YF□-□□□ | 22.0 \pm 30% | 14 | 100k | 2.52M | 145 | 190 | 18 | 1200 | 650 |
| SU6018330YF□-□□□ | 33.0 \pm 30% | 10 | 100k | 2.52M | 195 | 255 | 16 | 1000 | 580 |
| SU6018470YF□-□□□ | 47.0 \pm 30% | 12 | 100k | 2.52M | 315 | 410 | 14 | 800 | 460 |
| SU6018680YF□-□□□ | 68.0 \pm 30% | 12 | 100k | 2.52M | 455 | 600 | 12 | 620 | 360 |
| SU6018101YF□-□□□ | 100.0 \pm 30% | 20 | 100k | 796k | 550 | 715 | 9 | 550 | 340 |

- 1). □: Packaging information : □ Code
- 2)."-□□□":Reference code
- 3) . Electrical specifications at 25°C
- 4) . Inductance Test Freq. : 100kHz / 0.1V
- 5) . Isat base on Δ L / L0A=35% typ.
- 6) . Irms base on Temp. rise 30°C typ.

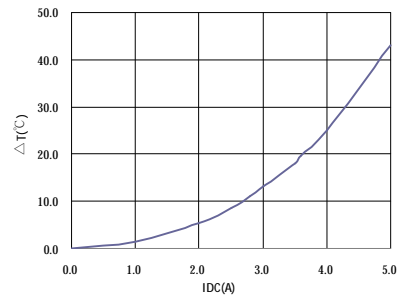
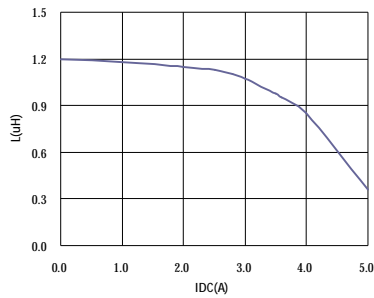
SPECIFICATION FOR APPROVAL

REF. :

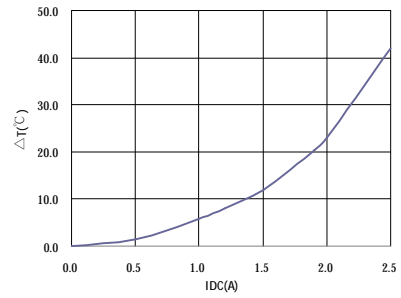
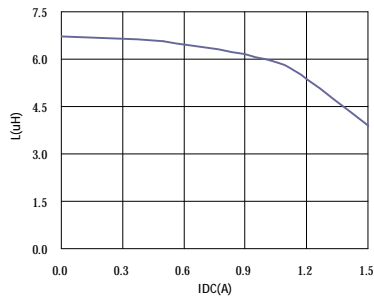
| | | | | | |
|---------------|-----------------------------|---------------|------------------|------|---|
| PROD. NAME | Shielded SMD Power Inductor | ABC'S DWG NO. | SU6018□□□□F□-□□□ | | |
| | | REV. | 20150709-D | PAGE | 3 |

V . Curve :

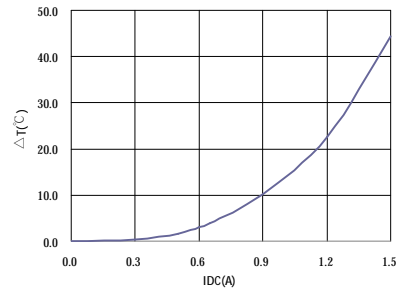
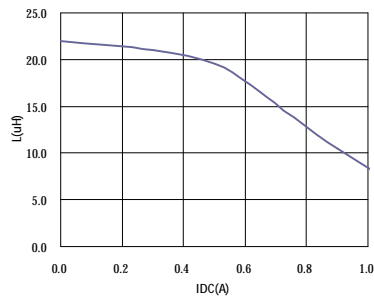
SU60181R2YF□



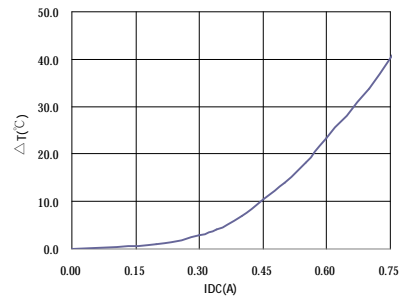
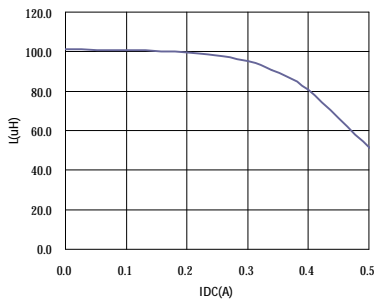
SU60186R8YF□



SU6018220YF□



SU6018101YF□



AR-001C

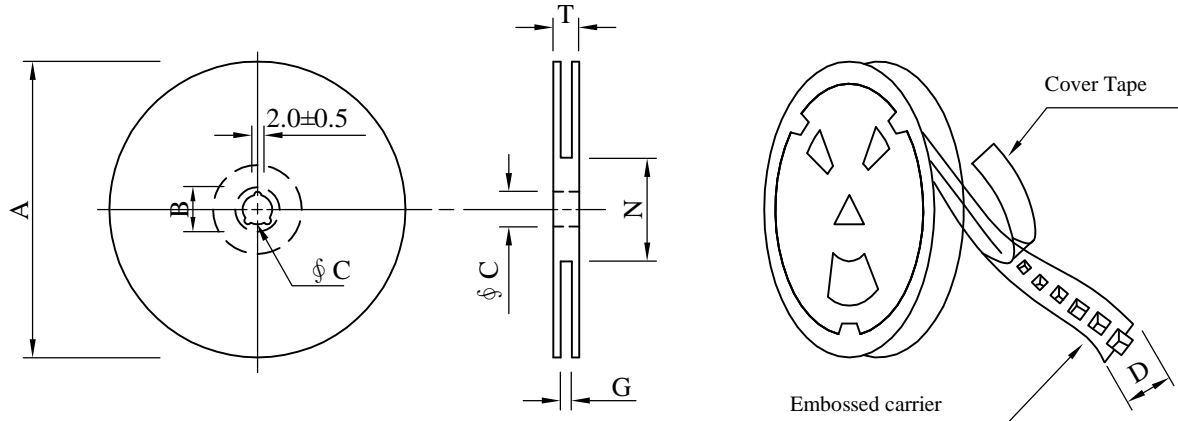
SPECIFICATION FOR APPROVAL

REF. :

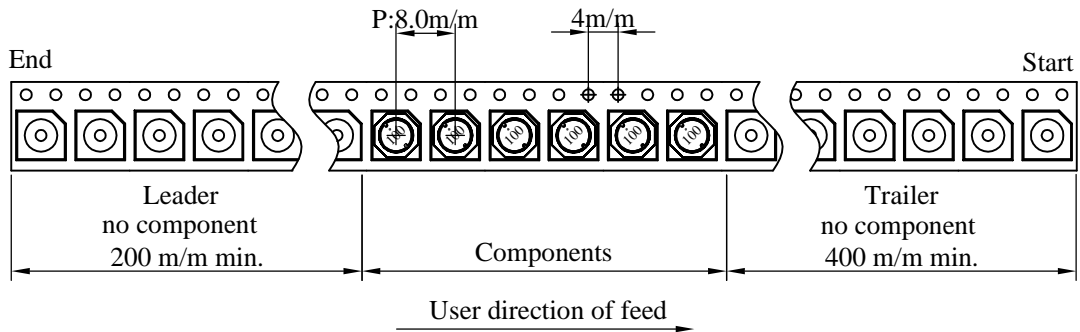
| | | | | | |
|------------|-----------------------------|---------------|------------|------------------|---|
| PROD. NAME | Shielded SMD Power Inductor | ABC'S DWG NO. | | SU6018□□□□F□-□□□ | |
| | | REV. | 20150709-D | PAGE | 4 |

VI . Packaging information :

(1) Configuration



※Carrier tape width : D



(2) Dimensions

Unit:m/m

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

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

| Code | Inner : Reel | | | Outer : Carton | | |
|------|--------------|-----------|---------|----------------|-----------|--------------|
| | Q'TY (pcs) | G.W. (gw) | Style | Q'TY (pcs) | G.W. (Kg) | Size (cm) |
| B | 800 | 270 | 07 - 12 | 32,000 | 12.4 | 42 x 41 x 24 |

AR-001C

SPECIFICATION FOR APPROVAL

REF. :

| | | | | | |
|------------|-----------------------------|---------------|------------------|------|---|
| PROD. NAME | Shielded SMD Power Inductor | ABC'S DWG NO. | SU6018□□□□F□-□□□ | | |
| | | REV. | 20150709-D | PAGE | 5 |

VII . 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 ±20%. |
| 2.Temperature Cycling | JESD22-A 104 | 1.Temperature: -40℃ ~ +125℃ 2.Number of cycle:100 cycle 3.Dwell time:30 minutes | 1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%. |
| 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 ±20%. |
| 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 ±20%. |
| 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 appearance. 2.No marking blurred. 3.Inductance shall not change more than ±20%. |
| 8. Vibration Test | MIL-STD-202 Method 204 | 1.Frequency and Amplitued : 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 ±20%. |
| 9.Resistance To Soldering Heat Test | MIL-STD-202 Method 210 & J-STD020D.1 | 1.Highest temperature : 260±5℃. 2.Time (temp. ≥ 217℃) : 60~150 Second. 3.IR reflow times : 3 times. | 1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%. |
| 10.Saturation Current | JIS C 6436 & User SPEC. | 1.Applied rated current for 5 second. 2.Saturation current | Inductance shall not drop more than 35% typ. |
| 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 30℃ typ. |
| 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 second. 4.IR reflow times : 1 times. | 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 ±20%. |
| 15.Drop | CNS-C6354 & GB/T 2423.8 | 1.Products shall be mounted on SPEC. PCB and dropped down from a height of 1m 2.Drop total time : 6 time (Every side of sample drop 2 time) | 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. |

AR-001C