

SSL Series

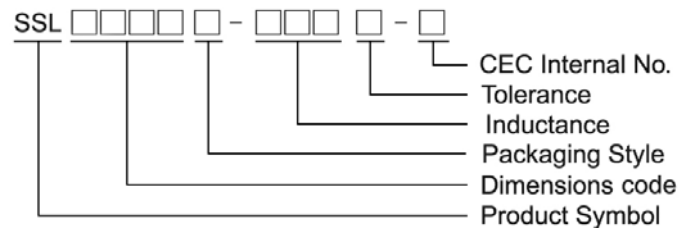
Features

- RoHS compliant
- High energy storage and very low resistance
- Smallest size and high performance

Applications

- Notebook computers, step-up and step-down converters
- Flash, memory programmers. etc

Product Identification

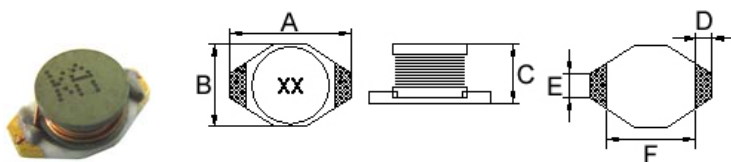


- Packaging: T : Tape and Reel , B : Bulk

Shape and Dimensions

Recommended Pattern

SSL0402



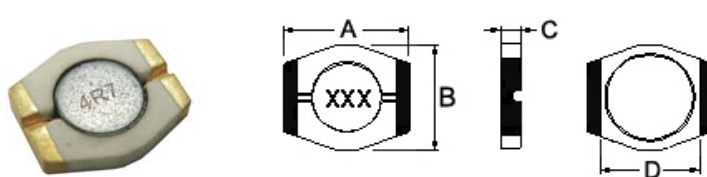
Dimensions in mm

| A | B | C | D | E | F |
|--------------------|--------------------|--------------------|------|------|------|
| 6.60 ⁺⁰ | 4.45 ⁺⁰ | 2.92 ⁺⁰ | 1.02 | 1.27 | 4.32 |

Dimensions in mm

| TYPE | A | B | C | D |
|---------|------|------|------|------|
| SSL0402 | 1.40 | 4.06 | 6.86 | 3.56 |

SSL 0614



Dimensions in mm

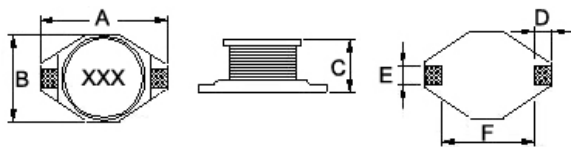
| A | B | C | D |
|--------------------|--------------------|--------------------|--------------------|
| 9.14 ⁺⁰ | 7.87 ⁺⁰ | 1.65 ⁺⁰ | 7.24 ⁺⁰ |

Dimensions in mm

| A | B | C | D |
|------|------|------|------|
| 1.21 | 7.24 | 9.66 | 5.84 |

Shape and Dimensions

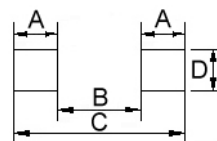
SSL0802/ 0804/ 0810



Dimensions in mm

| TYPE | A | B | C | D | E | F |
|---------|---------------------|--------------------|---------------------|------|------|------|
| SSL0802 | 12.95 ⁺⁰ | 9.4 ⁺⁰ | 3.0 ⁺⁰ | 2.54 | 2.54 | 7.62 |
| SSL0804 | 12.95 ⁺⁰ | 9.40 ⁺⁰ | 5.21 ⁺⁰ | 2.54 | 2.54 | 7.62 |
| SSL0810 | 12.95 ⁺⁰ | 9.40 ⁺⁰ | 11.43 ⁺⁰ | 2.54 | 2.54 | 7.62 |

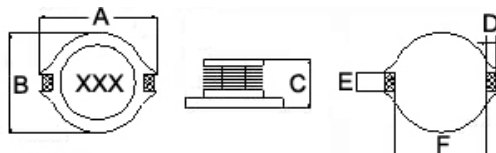
Recommended Pattern



Dimension in mm

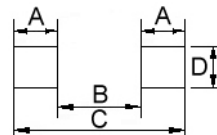
| TYPE | A | B | C | D |
|---------|------|------|-------|------|
| SSL0802 | 2.92 | 7.37 | 13.21 | 2.79 |
| SSL0804 | 2.92 | 7.37 | 13.21 | 2.79 |
| SSL0810 | 2.92 | 7.37 | 13.21 | 2.79 |

SSL1306



Dimensions in mm

| A | B | C | D | E | F |
|---------------------|---------------------|--------------------|------|------|------|
| 18.54 ⁺⁰ | 15.24 ⁺⁰ | 7.11 ⁺⁰ | 2.54 | 2.54 | 12.7 |



Dimension in mm

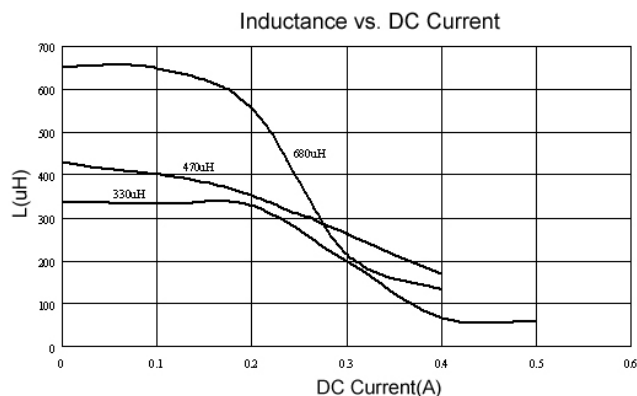
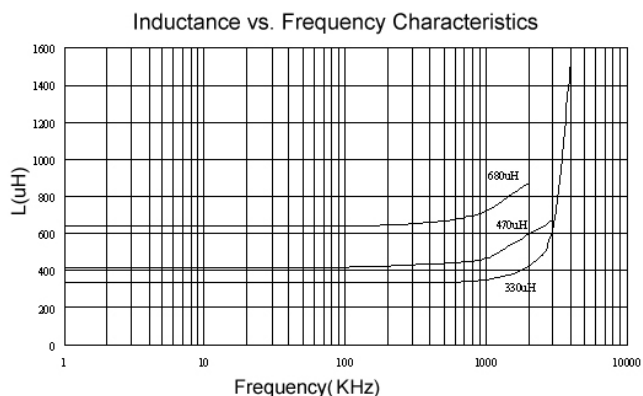
| TYPE | A | B | C | D |
|---------|------|-------|-------|------|
| SSL1306 | 2.92 | 12.45 | 18.29 | 2.79 |

Electrical Characteristics

| Part Number | Inductance (μH) | Tolerance ($\pm\%$) | SRF (MHz) Typ | DC Resistance (Ω) Max | Isat (A) | Irms (A) |
|-----------------|---------------------------------|--------------------------|------------------|-----------------------------------|-------------|-------------|
| SSL0402T-1R0M-N | 1.0 | 20 | 130 | 0.05 | 2.90 | 2.9 |
| SSL0402T-1R5M-N | 1.5 | 20 | 115 | 0.05 | 2.60 | 2.8 |
| SSL0402T-2R2M-N | 2.2 | 20 | 90 | 0.07 | 2.30 | 2.4 |
| SSL0402T-3R3M-N | 3.3 | 20 | 70 | 0.08 | 2.00 | 2.0 |
| SSL0402T-4R7M-N | 4.7 | 20 | 50 | 0.09 | 1.50 | 1.5 |
| SSL0402T-6R8M-N | 6.8 | 20 | 45 | 0.13 | 1.20 | 1.4 |
| SSL0402T-100M-N | 10 | 20 | 35 | 0.16 | 1.10 | 1.1 |
| SSL0402T-150M-N | 15 | 20 | 30 | 0.23 | 0.90 | 1.2 |
| SSL0402T-220M-N | 22 | 20 | 20 | 0.37 | 0.70 | 0.8 |
| SSL0402T-330M-N | 33 | 20 | 15 | 0.51 | 0.58 | 0.6 |
| SSL0402T-470M-N | 47 | 20 | 14 | 0.64 | 0.50 | 0.5 |
| SSL0402T-680M-N | 68 | 20 | 11 | 0.86 | 0.40 | 0.4 |
| SSL0402T-101M-N | 100 | 20 | 9 | 1.27 | 0.31 | 0.3 |
| SSL0402T-151M-N | 150 | 20 | 6 | 2.00 | 0.27 | 0.25 |
| SSL0402T-221M-N | 220 | 20 | 5.5 | 3.11 | 0.22 | 0.20 |
| SSL0402T-331M-N | 330 | 20 | 5 | 3.80 | 0.18 | 0.16 |
| SSL0402T-471M-N | 470 | 20 | 4 | 5.06 | 0.16 | 0.15 |
| SSL0402T-681M-N | 680 | 20 | 3 | 9.20 | 0.14 | 0.12 |
| SSL0402T-102M-N | 1000 | 20 | 2 | 13.8 | 0.10 | 0.07 |

- Inductance tested at 100 KHz, 0.1 Vrms.
- Inductance drop = 20% typ. at Isat.
- $\Delta T = 30^\circ\text{C}$ rise typ at I rms.
- Tolerance: M = $\pm 20\%$
- Operating temperature range $-40^\circ\text{C} \sim 125^\circ\text{C}$ (Including self - temperature rise)

Test Instruments :



Electrical Characteristics

| Part Number | Inductance (μ H) | Tolerance (\pm %) | D.C. Resistance (Ω) Max | Isat (A) |
|-----------------|--------------------------|-------------------------|-------------------------------------|-------------|
| SSL0614T-4R7M-N | 4.7 | 20 | 0.145 | 1.60 |
| SSL0614T-6R8M-N | 6.8 | 20 | 0.165 | 1.30 |
| SSL0614T-100M-N | 10 | 20 | 0.240 | 1.00 |
| SSL0614T-150M-N | 15 | 20 | 0.300 | 0.90 |
| SSL0614T-220M-N | 22 | 20 | 0.420 | 0.70 |
| SSL0614T-330M-N | 33 | 20 | 0.550 | 0.60 |
| SSL0614T-470M-N | 47 | 20 | 0.765 | 0.40 |
| SSL0614T-680M-N | 68 | 20 | 1.10 | 0.40 |
| SSL0614T-101M-N | 100 | 20 | 1.60 | 0.30 |
| SSL0614T-151M-N | 150 | 20 | 2.50 | 0.25 |
| SSL0614T-221M-N | 220 | 20 | 3.65 | 0.22 |
| SSL0614T-331M-N | 330 | 20 | 4.65 | 0.18 |
| SSL0614T-471M-N | 470 | 20 | 6.75 | 0.14 |
| SSL0614T-681M-N | 680 | 20 | 9.15 | 0.12 |
| SSL0614T-102M-N | 1000 | 20 | 14.2 | 0.10 |

- Inductance tested at 100 KHz, 0.1 Vrms.I
- Inductance drop = 10% typ. at Isat
- Tolerance: M = \pm 20%

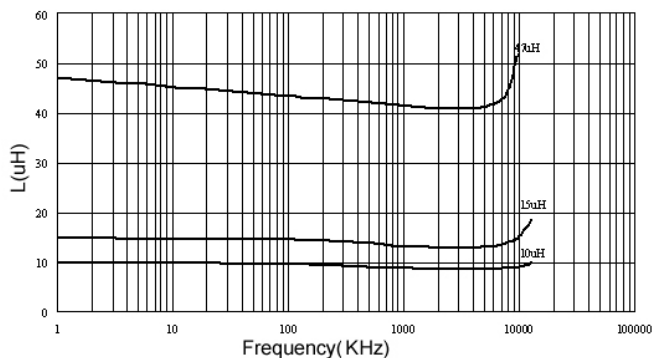
Electrical Characteristics

| Part Number | Inductance (μH) | Tolerance ($\pm\%$) | SRF (MHz) Typ. | DC Resistance (Ω) Max | Isat (A) | Irms (A) |
|-----------------|---------------------------------|--------------------------|-------------------|-----------------------------------|-------------|-------------|
| SSL0802T-100M-N | 10 | 20 | 35 | 0.09 | 2.4 | 2.0 |
| SSL0802T-150M-N | 15 | 20 | 33 | 0.12 | 2.0 | 1.5 |
| SSL0802T-220M-N | 22 | 20 | 25 | 0.19 | 1.6 | 1.3 |
| SSL0802T-330M-N | 33 | 20 | 19 | 0.25 | 1.4 | 1.1 |
| SSL0802T-470M-N | 47 | 20 | 14 | 0.32 | 1.0 | 0.8 |
| SSL0802T-680M-N | 68 | 20 | 12 | 0.55 | 0.9 | 0.7 |
| SSL0802T-101M-N | 100 | 20 | 10 | 0.70 | 0.7 | 0.6 |
| SSL0802T-151M-N | 150 | 20 | 8 | 1.00 | 0.6 | 0.5 |
| SSL0802T-221M-N | 220 | 20 | 6 | 1.60 | 0.5 | 0.4 |
| SSL0802T-331M-N | 330 | 20 | 5 | 2.20 | 0.4 | 0.3 |
| SSL0802T-471M-N | 470 | 20 | 4 | 3.30 | 0.3 | 0.2 |
| SSL0802T-681M-N | 680 | 20 | 3 | 4.40 | 0.2 | 0.1 |
| SSL0802T-102M-N | 1000 | 20 | 2.5 | 7.00 | 0.1 | 0.05 |

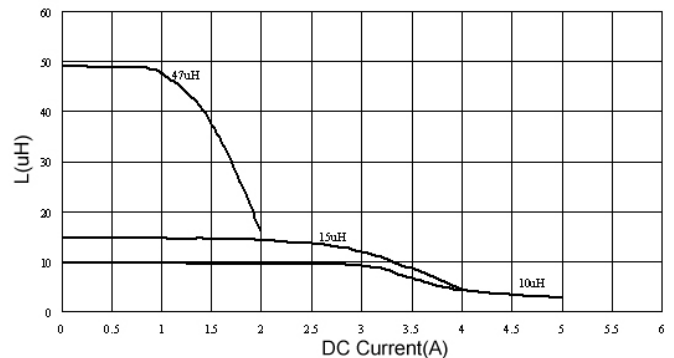
- Inductance tested at 100 KHz, 0.1 Vrms.
- Inductance drop = 20% typ. at Isat.
- $\Delta T = 30^\circ\text{C}$ rise typ. at I rms.
- Tolerance: M = $\pm 20\%$
- Operating temperature range $-40^\circ\text{C} \sim 125^\circ\text{C}$ (Including self - temperature rise)

Test Instruments :

Inductance vs. Frequency Characteristics



Inductance vs. DC Current

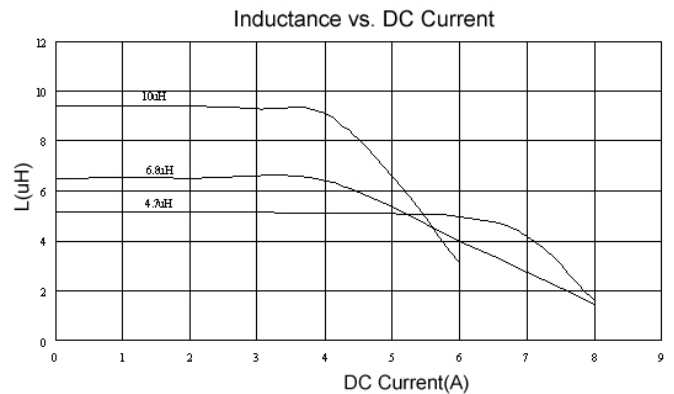
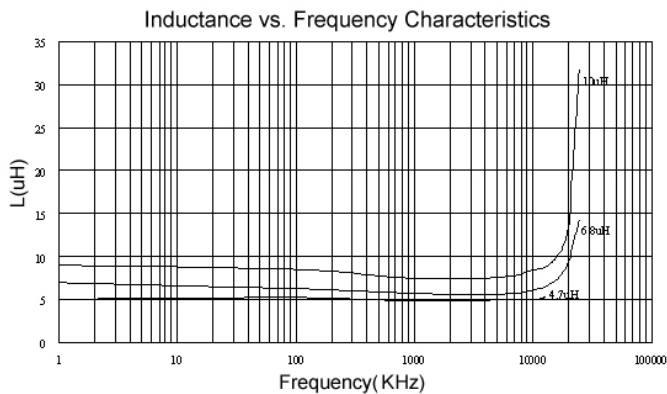


Electrical Characteristics

| Part Number | Inductance (μH) | Tolerance ($\pm\%$) | SRF (MHz) Typ. | DC Resistance (Ω) Max | Isat (A) | Irms (A) |
|-----------------|---------------------------------|--------------------------|-------------------|-----------------------------------|-------------|-------------|
| SSL0804T-1R0M-N | 1.0 | 20 | 100 | 0.009 | 9.0 | 6.8 |
| SSL0804T-1R5M-N | 1.5 | 20 | 90 | 0.010 | 8.0 | 6.4 |
| SSL0804T-2R2M-N | 2.2 | 20 | 80 | 0.012 | 7.0 | 6.1 |
| SSL0804T-3R3M-N | 3.3 | 20 | 65 | 0.015 | 6.4 | 5.4 |
| SSL0804T-4R7M-N | 4.7 | 20 | 45 | 0.018 | 5.4 | 4.8 |
| SSL0804T-6R8M-N | 6.8 | 20 | 38 | 0.027 | 4.6 | 4.4 |
| SSL0804T-100M-N | 10 | 20 | 30 | 0.038 | 3.8 | 3.9 |
| SSL0804T-150M-N | 15 | 20 | 27 | 0.046 | 3.0 | 3.1 |
| SSL0804T-220M-N | 22 | 20 | 19 | 0.085 | 2.6 | 2.7 |
| SSL0804T-330M-N | 33 | 20 | 15 | 0.100 | 2.0 | 2.1 |
| SSL0804T-470M-N | 47 | 20 | 12 | 0.140 | 1.6 | 1.8 |
| SSL0804T-680M-N | 68 | 20 | 10 | 0.200 | 1.4 | 1.5 |
| SSL0804T-101M-N | 100 | 20 | 9 | 0.260 | 1.2 | 1.3 |
| SSL0804T-151M-N | 150 | 20 | 6 | 0.400 | 1.0 | 1.0 |
| SSL0804T-221M-N | 220 | 20 | 5 | 0.610 | 0.8 | 0.8 |
| SSL0804T-331M-N | 330 | 20 | 4.5 | 1.020 | 0.6 | 0.6 |
| SSL0804T-471M-N | 470 | 20 | 3.5 | 1.270 | 0.5 | 0.5 |
| SSL0804T-681M-N | 680 | 20 | 2.5 | 2.020 | 0.4 | 0.4 |
| SSL0804T-102M-N | 1000 | 20 | 2.0 | 3.000 | 0.3 | 0.3 |

- Inductance tested at 100 KHz, 0.1 Vrms.
- Inductance drop = 20% typ. at Isat.
- $\Delta T = 15^\circ\text{C}$ rise typ. at I rms.
- Tolerance: M = $\pm 20\%$
- Operating temperature range $-40^\circ\text{C} \sim 125^\circ\text{C}$ (Including self - temperature rise)

Test Instruments :



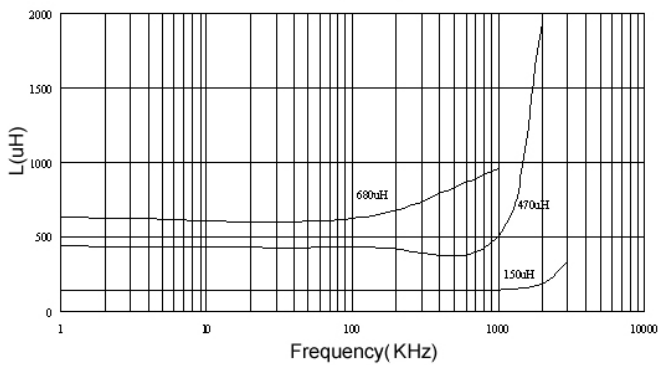
Electrical Characteristics

| Part Number | Inductance (μH) | Tolerance ($\pm\%$) | DC Resistance (Ω) Max | SRF (MHz) Typ. | Isat (A) | Irms (A) |
|-----------------|---------------------------------|--------------------------|-----------------------------------|-------------------|-------------|-------------|
| SSL0810T-100M-N | 10 | 20 | 0.033 | 22 | 8.0 | 3.5 |
| SSL0810T-150M-N | 15 | 20 | 0.042 | 18 | 7.0 | 3.0 |
| SSL0810T-220M-N | 22 | 20 | 0.054 | 11 | 5.5 | 2.5 |
| SSL0810T-330M-N | 33 | 20 | 0.08 | 9 | 4.0 | 2.0 |
| SSL0810T-470M-N | 47 | 20 | 0.10 | 8 | 3.8 | 1.6 |
| SSL0810T-680M-N | 68 | 20 | 0.17 | 7 | 3.0 | 1.2 |
| SSL0810T-101M-N | 100 | 20 | 0.22 | 5 | 2.5 | 1.2 |
| SSL0810T-151M-N | 150 | 20 | 0.34 | 4 | 2.0 | 0.9 |
| SSL0810T-221M-N | 220 | 20 | 0.44 | 3.5 | 1.6 | 0.7 |
| SSL0810T-331M-N | 330 | 20 | 0.70 | 2.5 | 1.2 | 0.6 |
| SSL0810T-471M-N | 470 | 20 | 0.95 | 2 | 1.0 | 0.3 |
| SSL0810T-681M-N | 680 | 20 | 1.2 | 2 | 1.0 | 0.2 |
| SSL0810T-102M-N | 1000 | 20 | 2.0 | 1.5 | 0.8 | 0.1 |

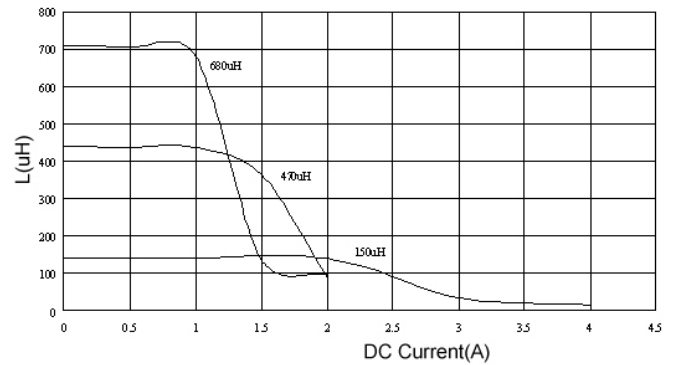
- Inductance tested at 100 KHz, 0.1 Vrms.
- Inductance drop = 20% typ. at Isat.
- $\Delta T = 40^\circ\text{C}$ rise typ. at I rms.
- Tolerance: M = $\pm 20\%$
- Operating temperature range $-40^\circ\text{C} \sim 125^\circ\text{C}$ (Including self - temperature rise)

Test Instruments :

Inductance vs. Frequency Characteristics



Inductance vs. DC Current

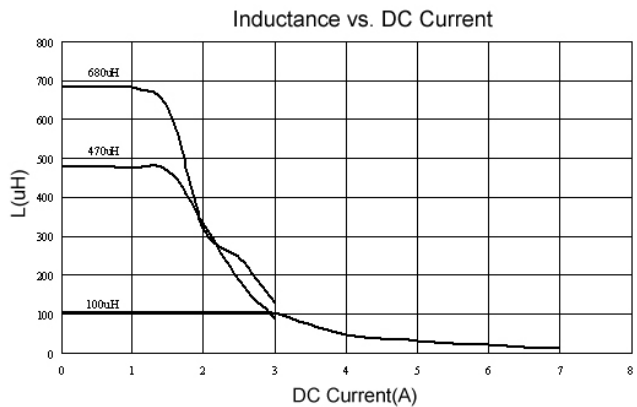
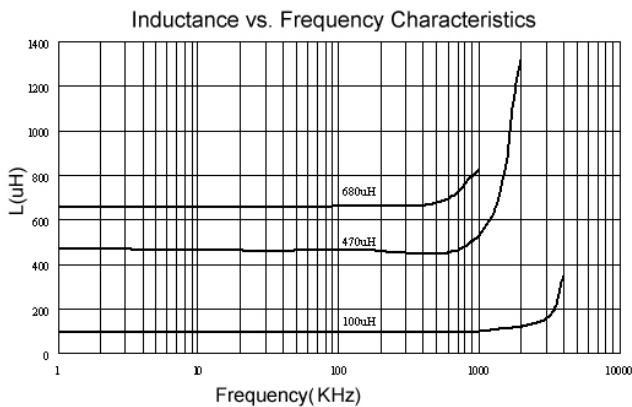


Electrical Characteristics

| Part Number | Inductance (μH) | Tolerance ($\pm\%$) | SRF (MHz) Typ. | DC Resistance ($\Omega+15\%$) | Isat (A) | Irms (A) |
|-----------------|---------------------------------|--------------------------|-------------------|------------------------------------|-------------|-------------|
| SSL1306T-1R0M-N | 1.0 | 20 | 80 | 0.011 | 20 | 8.6 |
| SSL1306T-2R2M-N | 2.2 | 20 | 80 | 0.014 | 16 | 7.1 |
| SSL1306T-3R3M-N | 3.3 | 20 | 60 | 0.016 | 14 | 6.2 |
| SSL1306T-5R6M-N | 5.6 | 20 | 40 | 0.022 | 12 | 5.3 |
| SSL1306T-100M-N | 10 | 20 | 30 | 0.032 | 10 | 4.3 |
| SSL1306T-150M-N | 15 | 20 | 22 | 0.036 | 8.0 | 4.0 |
| SSL1306T-220M-N | 22 | 20 | 20 | 0.047 | 7.0 | 3.5 |
| SSL1306T-330M-N | 33 | 20 | 15 | 0.066 | 5.5 | 3.0 |
| SSL1306T-470M-N | 47 | 20 | 9 | 0.087 | 4.5 | 2.6 |
| SSL1306T-680M-N | 68 | 20 | 8 | 0.13 | 3.5 | 2.3 |
| SSL1306T-101M-N | 100 | 20 | 7 | 0.19 | 3.0 | 1.8 |
| SSL1306T-151M-N | 150 | 20 | 6 | 0.25 | 2.6 | 1.5 |
| SSL1306T-221M-N | 220 | 20 | 5 | 0.38 | 2.4 | 1.2 |
| SSL1306T-331M-N | 330 | 20 | 4 | 0.56 | 1.9 | 1.0 |
| SSL1306T-471M-N | 470 | 20 | 3 | 0.85 | 1.4 | 0.82 |
| SSL1306T-681M-N | 680 | 20 | 2.5 | 1.2 | 1.2 | 0.72 |
| SSL1306T-102M-N | 1000 | 20 | 2 | 1.8 | 1.0 | 0.56 |

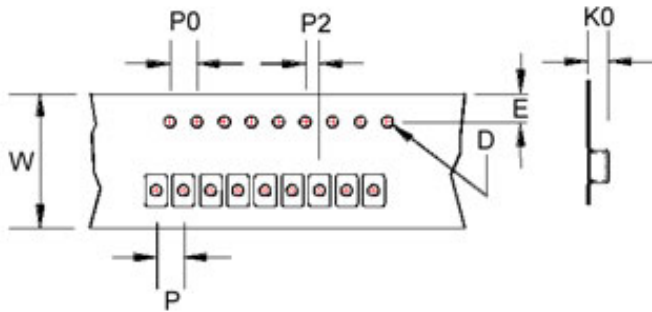
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- $\Delta T = 40^\circ\text{C}$ rise typ. at I rms.
- Tolerance: M = $\pm 20\%$
- Operating temperature range $-40^\circ\text{C} \sim 125^\circ\text{C}$ (Including self - temperature rise)

Test Instruments :

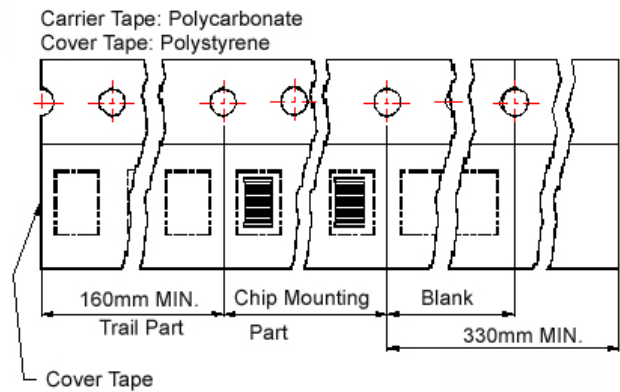


Packaging Specifications

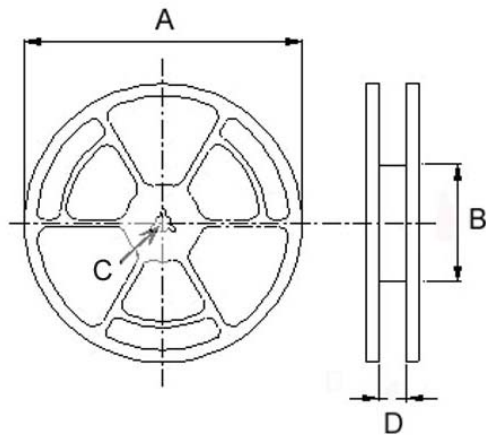
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

| TYPE | Tape Dimensions | | | | | | | Reel Dimensions | | | | Quantity (PCS / REEL) | |
|----------|-----------------|------|------|----|----|----|----|-----------------|-----|----|------|-----------------------|-------|
| | K0 | D | E | W | P | P0 | P2 | A | B | C | D | 178mm | 330mm |
| SSL0402 | 3.2 | 1.55 | 1.75 | 12 | 8 | 4 | 2 | 330 | 100 | 13 | 13.4 | - | 2500 |
| | | | | | | | | 178 | 60 | | 13.2 | 750 | - |
| SSL 0614 | 1.8 | 1.5 | 1.75 | 16 | 12 | 4 | 2 | 330 | 100 | 13 | 17.4 | - | 2500 |
| SSL 0802 | 3.75 | 1.55 | 1.75 | 24 | 16 | 4 | 2 | 330 | 100 | 13 | 24.4 | - | 1000 |
| SSL 0804 | 5.4 | 1.55 | 1.75 | 24 | 16 | 4 | 2 | 330 | 100 | 13 | 24.4 | - | 750 |
| SSL 0810 | 11.5 | 1.55 | 1.75 | 24 | 20 | 4 | 2 | 330 | 100 | 13 | 24.4 | - | 225 |
| SSL 1306 | 7.5 | 1.55 | 1.75 | 32 | 20 | 4 | 2 | 330 | 100 | 13 | 33.4 | - | 350 |