

## SSL Series

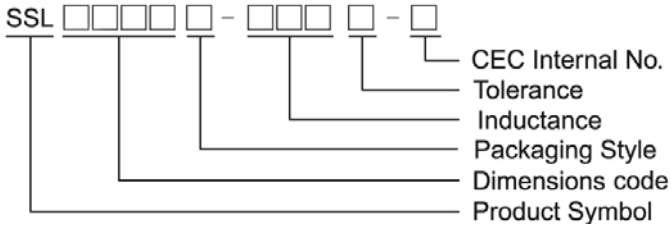
### Features

- RoHS, Halogen Free and REACH Compliance
- Unshielded power inductor
- Various package size and wide inductance range. SSL-HC family is designed for low resistance and high current purpose

### Applications

- DC/DC converters

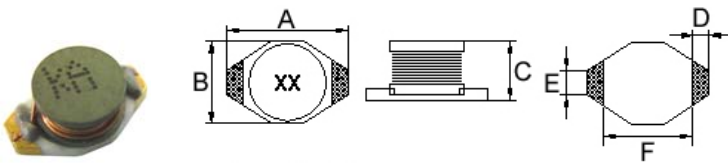
### Product Identification



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

### Shape and Dimensions

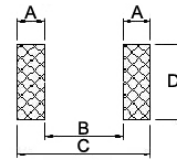
#### SSL0402



Dimensions in mm

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

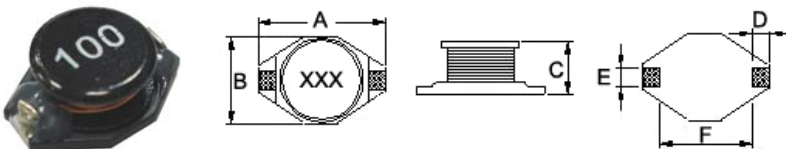
### Recommended Pattern



Dimensions in mm

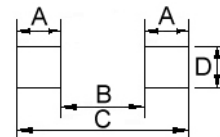
| TYPE    | A    | B    | C    | D    |
|---------|------|------|------|------|
| SSL0402 | 1.40 | 4.06 | 6.86 | 3.56 |

#### SSL0804/ 0810



Dimensions in mm

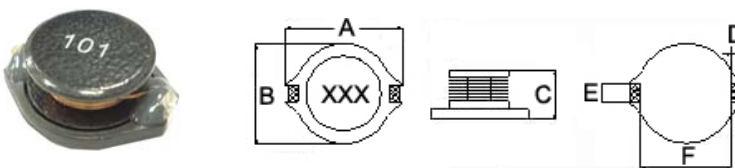
| TYPE    | A                   | B                  | C                   | D    | E    | F    |
|---------|---------------------|--------------------|---------------------|------|------|------|
| SSL0804 | 12.95 <sup>+0</sup> | 9.40 <sup>+0</sup> | 5.21 <sup>+0</sup>  | 2.54 | 2.54 | 7.62 |
| SSL0810 | 12.95 <sup>+0</sup> | 9.40 <sup>+0</sup> | 11.43 <sup>+0</sup> | 2.54 | 2.54 | 7.62 |



Dimension in mm

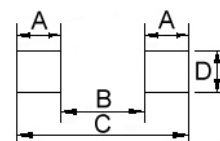
| TYPE    | A    | B    | C     | D    |
|---------|------|------|-------|------|
| SSL0804 | 2.92 | 7.37 | 13.21 | 2.79 |
| SSL0810 | 2.92 | 7.37 | 13.21 | 2.79 |

#### SSL1306



Dimensions in mm

| A                   | B                   | C                  | D    | E    | F    |
|---------------------|---------------------|--------------------|------|------|------|
| 18.54 <sup>+0</sup> | 15.24 <sup>+0</sup> | 7.11 <sup>+0</sup> | 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<br>( $\mu\text{H}$ ) | Tolerance<br>( $\pm\%$ ) | SRF<br>(MHz) Typ. | RDC<br>( $\Omega$ ) Max | Isat<br>(A) | Irms<br>(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-5R6M-N | 5.6                             | 20                       | 47                | 0.11                    | 1.30        |             |
| 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        |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 20% from its value with current
- I rms for a 30°C temperature rise from 25°C ambient with current
- Measure Equipment :

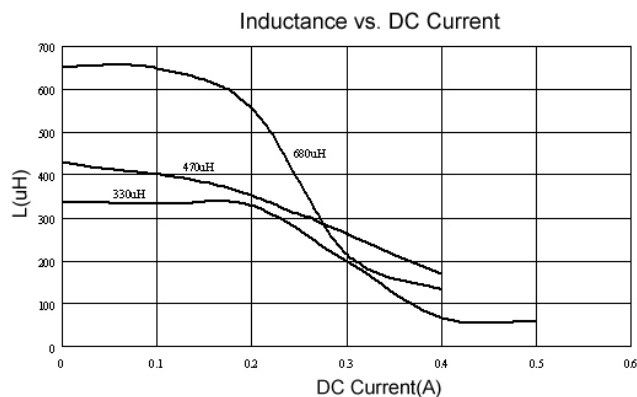
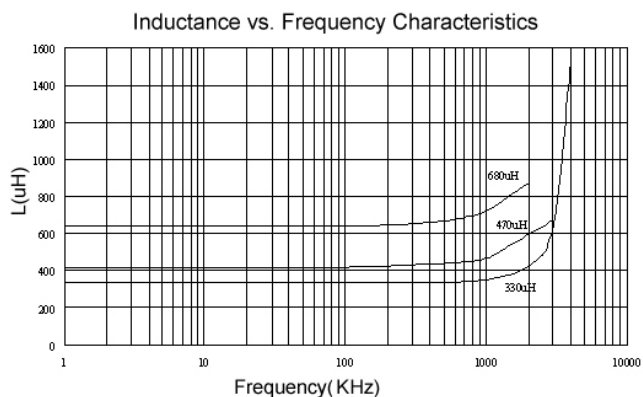
L : E4980 or HP4284A , 100kHz 0.1V

SRF : HP4291A or HP4192A

RDC : CHEN HWA 502

Isat : HP4284A+HP42841A or WK3260B+WK3265B

## Test Instruments :



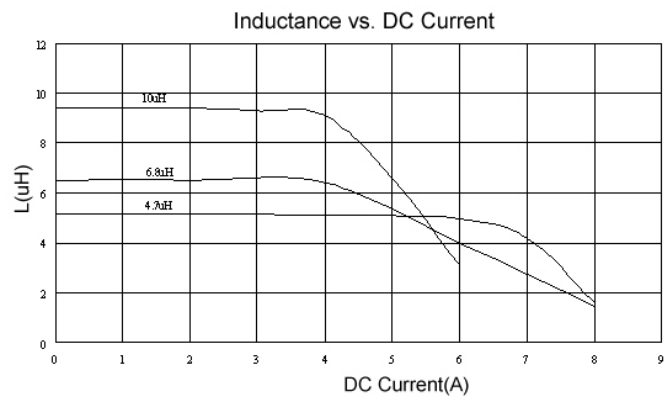
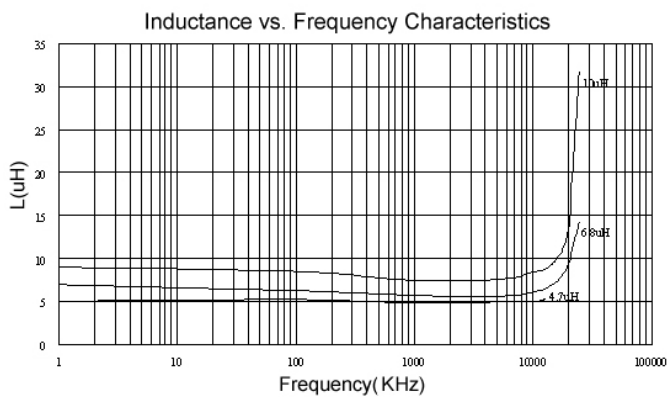
## Electrical Characteristics

| Part Number     | Inductance<br>( $\mu\text{H}$ ) | Tolerance<br>( $\pm\%$ ) | SRF<br>(MHz) Typ. | RDC<br>( $\Omega$ ) Max | Isat<br>(A) | Irms<br>(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-120M-N | 12                              | 20                       | 27                | 0.0432                  | 3.5         | 3.6         |
| 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         |
| SSL0804T-152M-N | 1500                            | 20                       | 1.4               | 4.500                   | 0.25        | 0.2         |

**Note: When ordering, please specify tolerance code. Tolerance: M= $\pm 20\%$**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 20% from its value with current
- I rms for a 15°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : E4980 or HP4284A , 100kHz 0.1V  
 SRF:HP4291A or HP4192A  
 RDC : CHEN HWA 502  
 Isat : HP4284A+HP42841A or WK3260B+WK3265B

## Test Instruments :



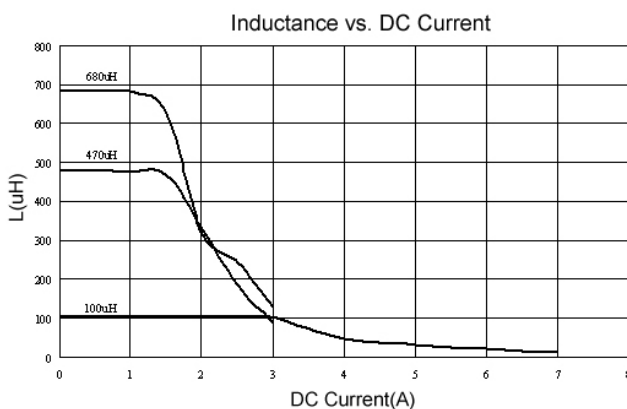
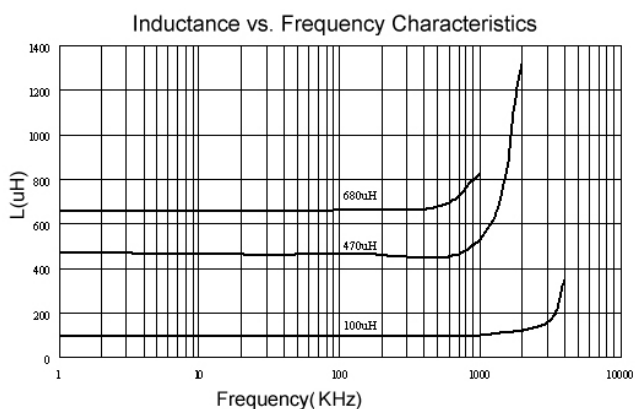
## Electrical Characteristics

| Part Number     | Inductance<br>( $\mu\text{H}$ ) | Tolerance<br>( $\pm\%$ ) | SRF<br>(MHz) Typ. | RDC<br>( $\Omega+15\%$ ) | Isat<br>(A) | Irms<br>(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-4R7M-N | 4.7                             | 20                       | 45                | 0.022                    | 13          | 5.5         |
| SSL1306T-5R6M-N | 5.6                             | 20                       | 40                | 0.022                    | 12          | 5.3         |
| SSL1306T-6R8M-N | 6.8                             | 20                       |                   | 0.022                    | 10          |             |
| SSL1306T-100M-N | 10                              | 20                       | 30                | 0.032                    | 10          | 4.3         |
| SSL1306T-150M-N | 15                              | 20                       | 22                | 0.036                    | 8.0         | 4.0         |
| SSL1306T-180M-N | 18                              | 20                       | 20                | 0.039                    | 7.5         | 3.7         |
| 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        |

**Note: When ordering, please specify tolerance code. Tolerance: M= $\pm 20\%$**

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 20% from its value with current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : E4980 or HP4284A , 100kHz 0.1V  
 SRF:HP4291A or HP4192A  
 RDC : CHEN HWA 502  
 Isat : HP4284A+HP42841A or WK3260B+WK3265B

## Test Instruments :



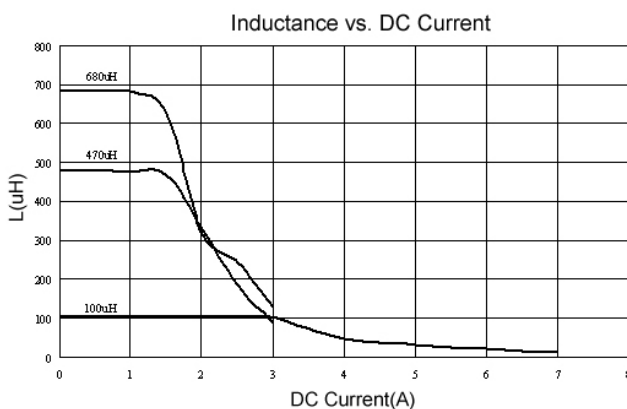
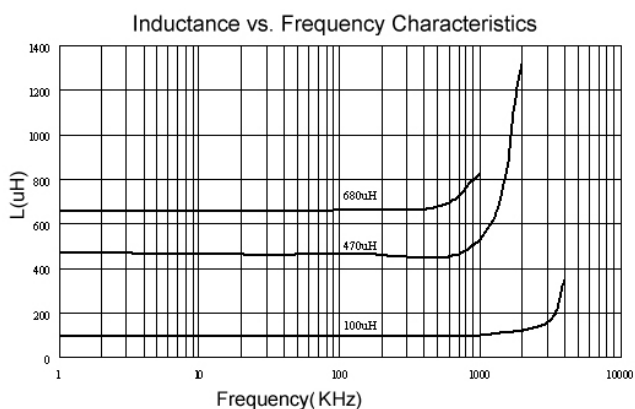
## Electrical Characteristics

| Part Number     | Inductance<br>( $\mu\text{H}$ ) | Tolerance<br>( $\pm\%$ ) | SRF<br>(MHz) Typ. | RDC<br>( $\Omega+15\%$ ) | Isat<br>(A) | Irms<br>(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-4R7M-N | 4.7                             | 20                       | 45                | 0.022                    | 13          | 5.5         |
| SSL1306T-5R6M-N | 5.6                             | 20                       | 40                | 0.022                    | 12          | 5.3         |
| SSL1306T-6R8M-N | 6.8                             | 20                       |                   | 0.022                    | 10          |             |
| SSL1306T-100M-N | 10                              | 20                       | 30                | 0.032                    | 10          | 4.3         |
| SSL1306T-150M-N | 15                              | 20                       | 22                | 0.036                    | 8.0         | 4.0         |
| SSL1306T-180M-N | 18                              | 20                       | 20                | 0.039                    | 7.5         | 3.7         |
| 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        |

**Note: When ordering, please specify tolerance code. Tolerance: M= $\pm 20\%$**

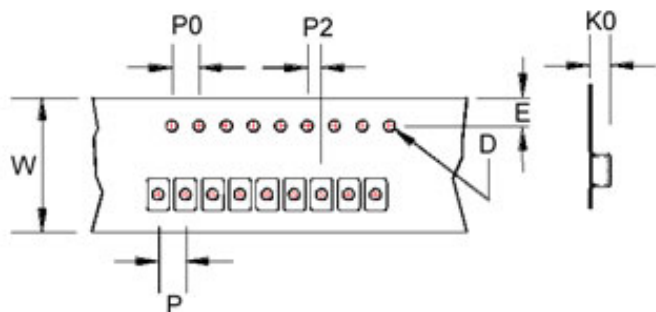
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- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
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 Isat : HP4284A+HP42841A or WK3260B+WK3265B

## Test Instruments :

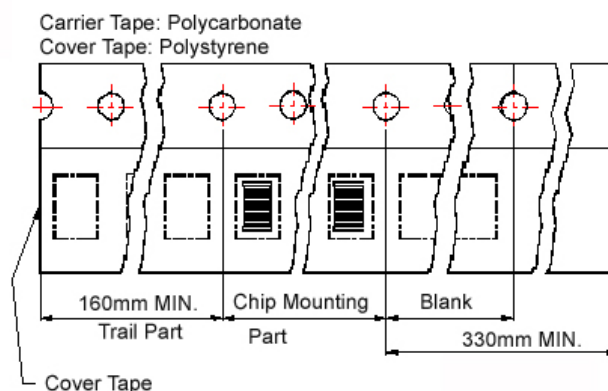


Packaging Specifications

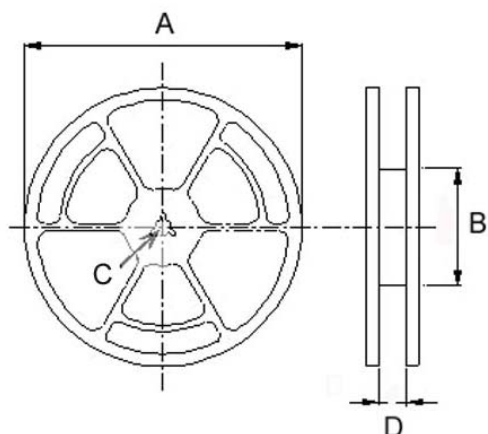
Tape Dimensions



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 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   |