

BPSL Series

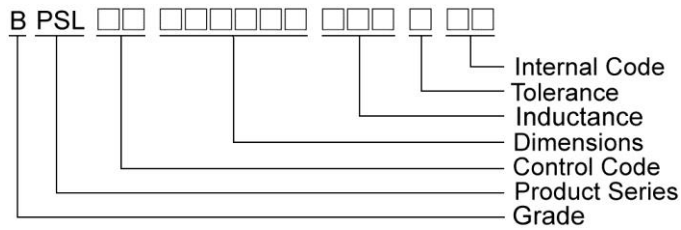
Features

- 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

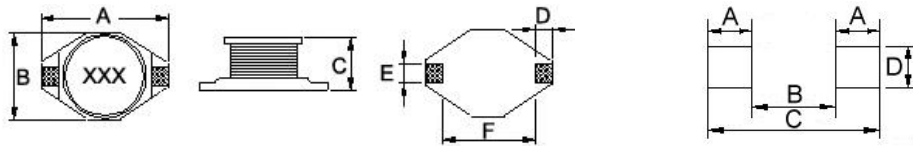
Product Identification



Shape and Dimensions

Recommended Pattern

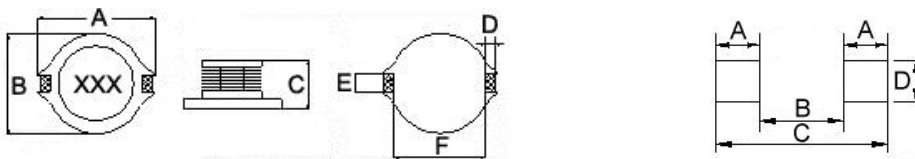
BPSL00130952/130911



Dimensions in mm

| TYPE | Shape and Dimensions | | | | | | Recommended Pattern | | | |
|--------------|----------------------|--------------------|---------------------|------|------|------|---------------------|------|-------|------|
| | A | B | C | D | E | F | A | B | C | D |
| BPSL00130952 | 12.95 ⁺⁰ | 9.40 ⁺⁰ | 5.21 ⁺⁰ | 2.54 | 2.54 | 7.62 | 2.92 | 7.37 | 13.21 | 2.79 |
| BPSL00130911 | 12.95 ⁺⁰ | 9.40 ⁺⁰ | 11.43 ⁺⁰ | 2.54 | 2.54 | 7.62 | 2.92 | 7.37 | 13.21 | 2.79 |

BPSL00191571



Dimensions in mm

| TYPE | Shape and Dimensions | | | | | | Recommended Pattern | | | |
|--------------|----------------------|---------------------|--------------------|------|------|------|---------------------|-------|-------|------|
| | A | B | C | D | E | F | A | B | C | D |
| BPSL00191571 | 18.54 ⁺⁰ | 15.24 ⁺⁰ | 7.11 ⁺⁰ | 2.54 | 2.54 | 12.7 | 2.92 | 12.45 | 18.29 | 2.79 |

SMD Unshielded Power Inductors – BPSL Series

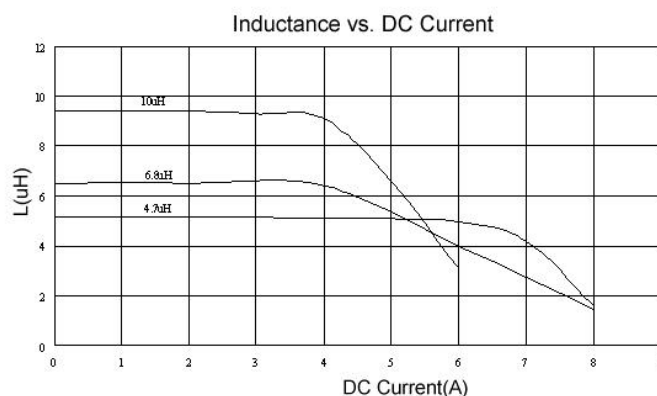
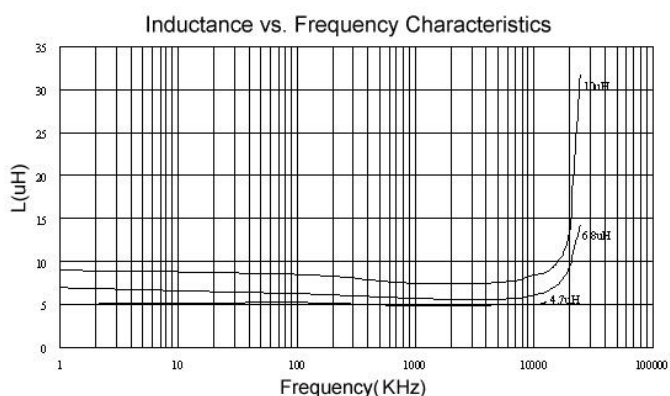
Electrical Characteristics

| Part Number | Inductance (μH) | Tolerance (±%) | Test Frequency (kHz) | SRF (MHz) Typ. | RDC (Ω) Max | Isat (A) | Irms (A) |
|--------------------|-----------------|----------------|----------------------|----------------|-------------|----------|----------|
| BPSL001309521R0M00 | 1.0 | 20 | 100 | 100 | 0.009 | 9.0 | 6.8 |
| BPSL001309521R5M00 | 1.5 | 20 | 100 | 90 | 0.010 | 8.0 | 6.4 |
| BPSL001309522R2M00 | 2.2 | 20 | 100 | 80 | 0.012 | 7.0 | 6.1 |
| BPSL001309523R3M00 | 3.3 | 20 | 100 | 65 | 0.015 | 6.4 | 5.4 |
| BPSL001309524R7M00 | 4.7 | 20 | 100 | 45 | 0.018 | 5.4 | 4.8 |
| BPSL001309526R8M00 | 6.8 | 20 | 100 | 38 | 0.027 | 4.6 | 4.4 |
| BPSL00130952100M00 | 10 | 20 | 100 | 30 | 0.038 | 3.8 | 3.9 |
| BPSL00130952120M00 | 12 | 20 | 100 | 27 | 0.0432 | 3.5 | 3.6 |
| BPSL00130952150M00 | 15 | 20 | 100 | 27 | 0.046 | 3.0 | 3.1 |
| BPSL00130952220M00 | 22 | 20 | 100 | 19 | 0.085 | 2.6 | 2.7 |
| BPSL00130952330M00 | 33 | 20 | 100 | 15 | 0.100 | 2.0 | 2.1 |
| BPSL00130952470M00 | 47 | 20 | 100 | 12 | 0.140 | 1.6 | 1.8 |
| BPSL00130952680M00 | 68 | 20 | 100 | 10 | 0.200 | 1.4 | 1.5 |
| BPSL00130952101M00 | 100 | 20 | 100 | 9 | 0.260 | 1.2 | 1.3 |
| BPSL00130952151M00 | 150 | 20 | 100 | 6 | 0.400 | 1.0 | 1.0 |
| BPSL00130952221M00 | 220 | 20 | 100 | 5 | 0.610 | 0.8 | 0.8 |
| BPSL00130952331M00 | 330 | 20 | 100 | 4.5 | 1.020 | 0.6 | 0.6 |
| BPSL00130952471M00 | 470 | 20 | 100 | 3.5 | 1.270 | 0.5 | 0.5 |
| BPSL00130952681M00 | 680 | 20 | 100 | 2.5 | 2.020 | 0.4 | 0.4 |
| BPSL00130952102M00 | 1000 | 20 | 100 | 2.0 | 3.000 | 0.3 | 0.3 |
| BPSL00130952152M00 | 1500 | 20 | 100 | 1.4 | 4.500 | 0.25 | 0.2 |

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 without 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 : Chroma 16502
 Isat : HP4284A+HP42841A or WK3260B+WK3265B

Test Instruments :



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SMD Unshielded Power Inductors – BPSL Series

Electrical Characteristics

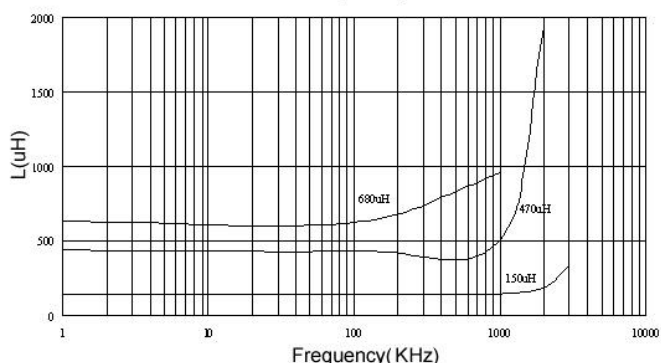
| Part Number | Inductance (μH) | Tolerance (±%) | Test Frequency (kHz) | SRF (MHz) Typ. | RDC (Ω) Max | Isat (A) | Irms (A) |
|--------------------|-----------------|----------------|----------------------|----------------|-------------|----------|----------|
| BPSL001309113R3M00 | 3.3 | 20 | 100 | 30 | 0.025 | 10 | 4.0 |
| BPSL001309114R7M00 | 4.7 | 20 | 100 | 25 | 0.033 | 8.0 | 3.5 |
| BPSL00130911100M00 | 10 | 20 | 100 | 22 | 0.033 | 8.0 | 3.5 |
| BPSL00130911150M00 | 15 | 20 | 100 | 18 | 0.042 | 7.0 | 3.0 |
| BPSL00130911220M00 | 22 | 20 | 100 | 11 | 0.054 | 5.5 | 2.5 |
| BPSL00130911330M00 | 33 | 20 | 100 | 9 | 0.08 | 4.0 | 2.0 |
| BPSL00130911470M00 | 47 | 20 | 100 | 8 | 0.10 | 3.8 | 1.6 |
| BPSL00130911680M00 | 68 | 20 | 100 | 7 | 0.17 | 3.0 | 1.2 |
| BPSL00130911101M00 | 100 | 20 | 100 | 5 | 0.22 | 2.5 | 1.2 |
| BPSL00130911151M00 | 150 | 20 | 100 | 4 | 0.34 | 2.0 | 0.9 |
| BPSL00130911221M00 | 220 | 20 | 100 | 3.5 | 0.44 | 1.6 | 0.7 |
| BPSL00130911271M00 | 270 | 20 | 100 | 2.5 | 0.60 | 1.4 | 0.6 |
| BPSL00130911331M00 | 330 | 20 | 100 | 2.5 | 0.70 | 1.2 | 0.6 |
| BPSL00130911471M00 | 470 | 20 | 100 | 2 | 0.95 | 1.0 | 0.3 |
| BPSL00130911681M00 | 680 | 20 | 100 | 2 | 1.2 | 1.0 | 0.2 |
| BPSL00130911102M00 | 1000 | 20 | 100 | 1.5 | 2.0 | 0.8 | 0.1 |

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

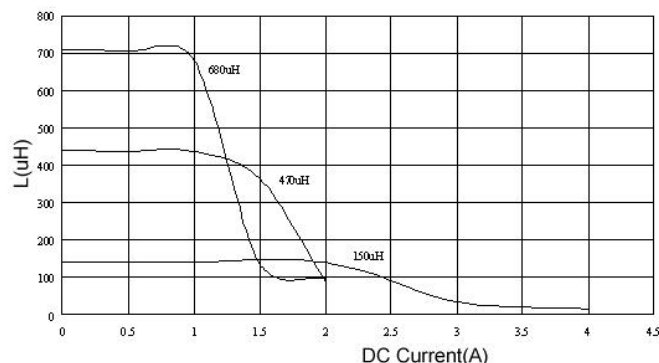
- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 20% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
 L : E4980 or HP4284A , 100kHz 0.1V
 SRF:HP4291A or HP4192A
 RDC : Chroma 16502
 Isat : HP4284A+HP42841A or WK3260B+WK3265B

Test Instruments :

Inductance vs. Frequency Characteristics



Inductance vs. DC Current



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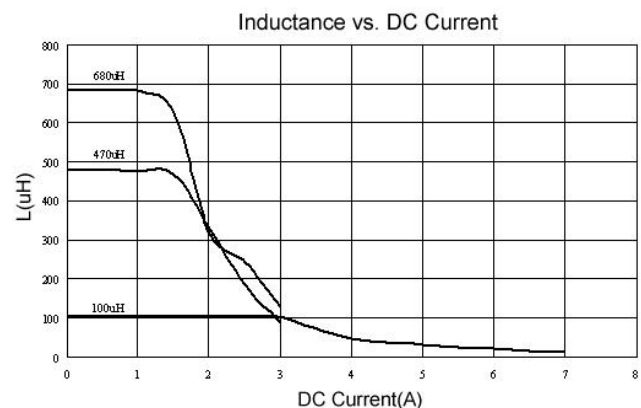
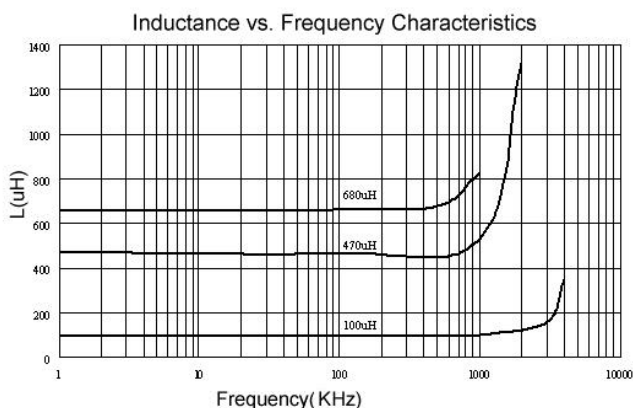
Electrical Characteristics

| Part Number | Inductance (μH) | Tolerance (±%) | Test Frequency (kHz) | SRF (MHz) Typ. | RDC (Ω+15%) | Isat (A) | Irms (A) |
|--------------------|-----------------|----------------|----------------------|----------------|-------------|----------|----------|
| BPSL001915711R0M00 | 1.0 | 20 | 100 | 80 | 0.011 | 20 | 8.6 |
| BPSL001915712R2M00 | 2.2 | 20 | 100 | 80 | 0.014 | 16 | 7.1 |
| BPSL001915713R3M00 | 3.3 | 20 | 100 | 60 | 0.016 | 14 | 6.2 |
| BPSL001915714R7M00 | 4.7 | 20 | 100 | 45 | 0.022 | 13 | 5.5 |
| BPSL001915715R6M00 | 5.6 | 20 | 100 | 40 | 0.022 | 12 | 5.3 |
| BPSL001915716R8M00 | 6.8 | 20 | 100 | 30 | 0.022 | 10 | 5.0 |
| BPSL00191571100M00 | 10 | 20 | 100 | 30 | 0.032 | 10 | 4.3 |
| BPSL00191571150M00 | 15 | 20 | 100 | 22 | 0.036 | 8.0 | 4.0 |
| BPSL00191571180M00 | 18 | 20 | 100 | 20 | 0.039 | 7.5 | 3.7 |
| BPSL00191571220M00 | 22 | 20 | 100 | 20 | 0.047 | 7.0 | 3.5 |
| BPSL00191571330M00 | 33 | 20 | 100 | 15 | 0.066 | 5.5 | 3.0 |
| BPSL00191571470M00 | 47 | 20 | 100 | 9 | 0.087 | 4.5 | 2.6 |
| BPSL00191571680M00 | 68 | 20 | 100 | 8 | 0.13 | 3.5 | 2.3 |
| BPSL00191571101M00 | 100 | 20 | 100 | 7 | 0.19 | 3.0 | 1.8 |
| BPSL00191571151M00 | 150 | 20 | 100 | 6 | 0.25 | 2.6 | 1.5 |
| BPSL00191571221M00 | 220 | 20 | 100 | 5 | 0.38 | 2.4 | 1.2 |
| BPSL00191571331M00 | 330 | 20 | 100 | 4 | 0.56 | 1.9 | 1.0 |
| BPSL00191571471M00 | 470 | 20 | 100 | 3 | 0.85 | 1.4 | 0.82 |
| BPSL00191571681M00 | 680 | 20 | 100 | 2.5 | 1.2 | 1.2 | 0.72 |
| BPSL00191571102M00 | 1000 | 20 | 100 | 2 | 1.8 | 1.0 | 0.56 |

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Test Instruments :

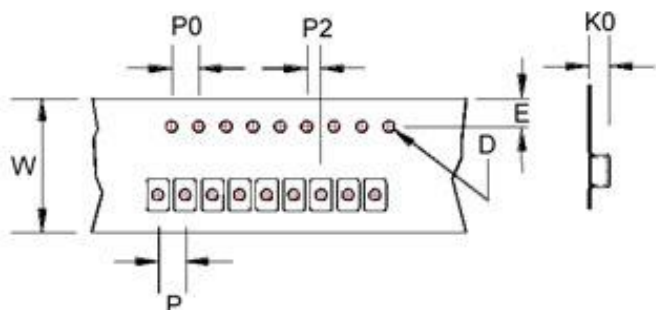


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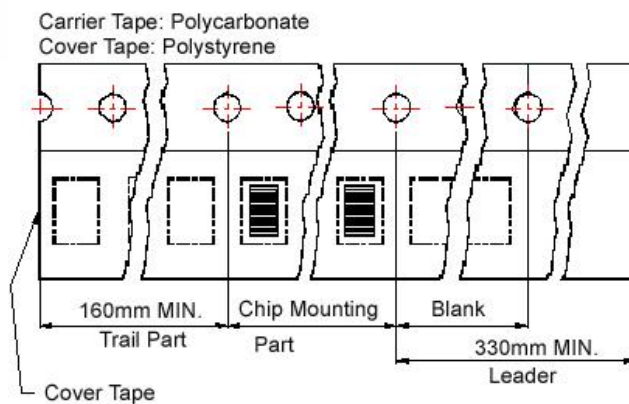
SMD Unshielded Power Inductors – BPSL Series

Packaging Specifications

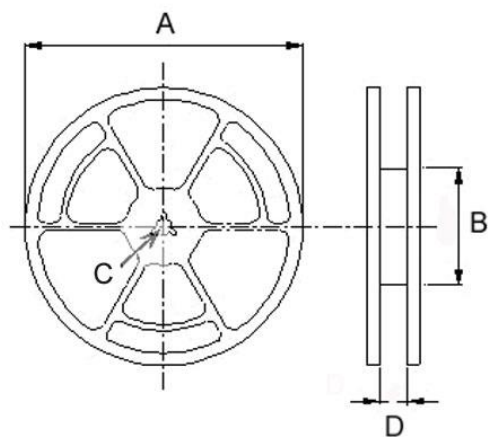
Tape Dimensions



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 | |
| BPSL00130952 | 5.4 | 1.55 | 1.75 | 24 | 16 | 4 | 2 | 330 | 100 | 13 | 24.4 | 750 |
| BPSL00130911 | 11.2 | 1.55 | 1.75 | 24 | 20 | 4 | 2 | 330 | 100 | 13 | 24.4 | 225 |
| BPSL00191571 | 7.5 | 1.55 | 1.75 | 32 | 20 | 4 | 2 | 330 | 100 | 13 | 33.4 | 350 |