

## BPSY Series



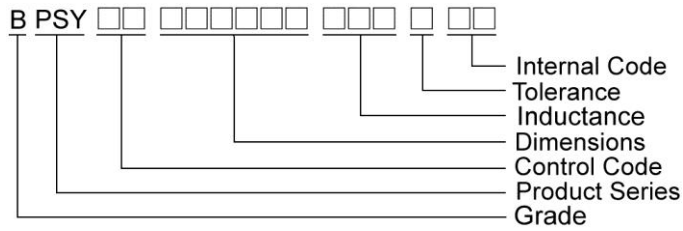
### Features

- RoHS, Halogen Free and REACH Compliance
- Magnetic shielded
- Good Q factor, good energy storage and low resistance

### Applications

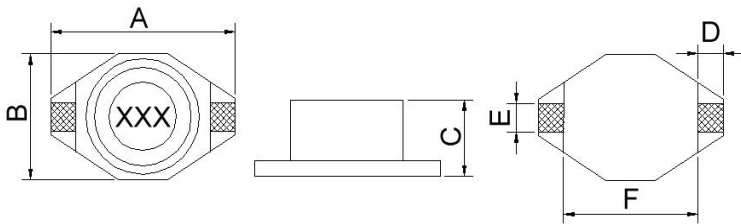
- Flash memory programmers
- Electric motors
- DC/DC converters

### Product Identification



### Shape and Dimensions

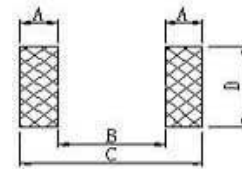
BPSY00130951



Dimensions in mm

| TYPE         | A                   | B                  | C                  | D    | E    | F    |
|--------------|---------------------|--------------------|--------------------|------|------|------|
| BPSY00130951 | 12.95 <sup>+0</sup> | 9.40 <sup>+0</sup> | 5.08 <sup>+0</sup> | 2.54 | 2.54 | 7.62 |

### Recommended Pattern



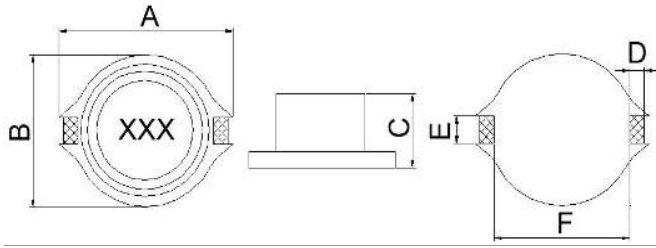
Dimensions in mm

| TYPE         | A    | B    | C     | D    |
|--------------|------|------|-------|------|
| BPSY00130951 | 2.92 | 7.37 | 13.21 | 2.79 |

# SMD Shielded Power Inductors - BPSY Series

## Shape and Dimensions

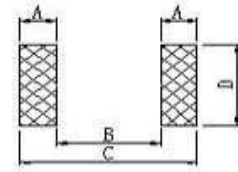
BPSY00191576



Dimensions in mm

| TYPE         | A                   | B                   | C                  | D    | E    | F    |
|--------------|---------------------|---------------------|--------------------|------|------|------|
| BPSY00191576 | 18.54 <sup>+0</sup> | 15.24 <sup>+0</sup> | 7.62 <sup>+0</sup> | 2.54 | 2.54 | 12.7 |

## Recommended Pattern



Dimensions in mm

| TYPE         | A    | B     | C     | D    |
|--------------|------|-------|-------|------|
| BPSY00191576 | 2.92 | 12.45 | 18.29 | 2.79 |

# SMD Shielded Power Inductors – BPSY Series

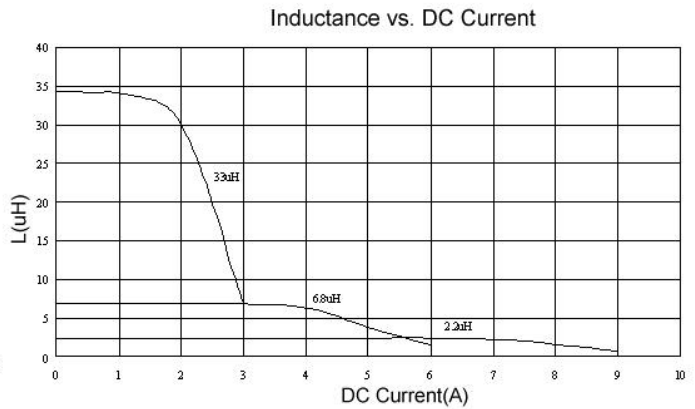
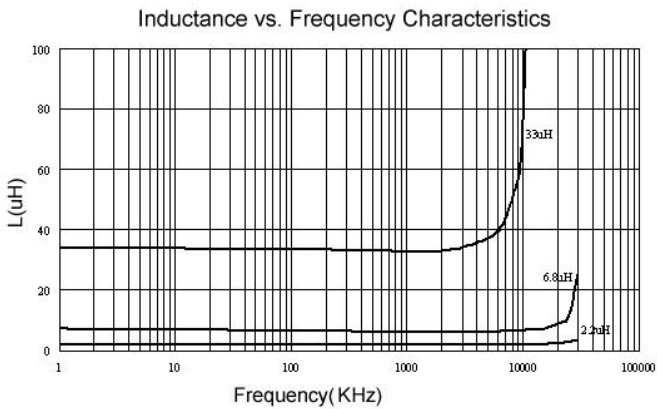
## Electrical Characteristics

| Part Number        | Inductance (μH) | Tolerance (±%) | Q Min | Q Frequency (kHz) | DC Resistance (Ω) Max | SRF (MHz) Typ. | Isat (A) | Irms (A) |
|--------------------|-----------------|----------------|-------|-------------------|-----------------------|----------------|----------|----------|
| BPSY001309511R0M00 | 1.0             | 20             | 3     | 100               | 0.021                 | 110            | 5.6      | 5.0      |
| BPSY001309511R5M00 | 1.5             | 20             | 5     | 100               | 0.022                 | 90             | 5.2      | 4.5      |
| BPSY001309512R2M00 | 2.2             | 20             | 5     | 100               | 0.032                 | 60             | 5.0      | 3.8      |
| BPSY001309513R3M00 | 3.3             | 20             | 5     | 100               | 0.039                 | 55             | 3.9      | 3.3      |
| BPSY001309514R7M00 | 4.7             | 20             | 10    | 100               | 0.054                 | 30             | 3.2      | 2.7      |
| BPSY001309516R8M00 | 6.8             | 20             | 10    | 100               | 0.075                 | 30             | 2.8      | 2.2      |
| BPSY00130951100M00 | 10              | 20             | 10    | 100               | 0.101                 | 28             | 2.4      | 2.0      |
| BPSY00130951150M00 | 15              | 20             | 15    | 100               | 0.15                  | 20             | 2.0      | 1.5      |
| BPSY00130951220M00 | 22              | 20             | 20    | 100               | 0.207                 | 15             | 1.6      | 1.3      |
| BPSY00130951330M00 | 33              | 20             | 20    | 100               | 0.334                 | 12             | 1.4      | 1.1      |
| BPSY00130951470M00 | 47              | 20             | 20    | 100               | 0.472                 | 10             | 1.0      | 0.8      |
| BPSY00130951680M00 | 68              | 20             |       |                   | 0.660                 | 10             | 0.9      | 0.7      |
| BPSY00130951101M00 | 100             | 20             |       |                   | 1.110                 | 7              | 0.8      | 0.6      |
| BPSY00130951151M00 | 150             | 20             |       |                   | 1.550                 | 6              | 0.6      | 0.5      |
| BPSY00130951221M00 | 220             | 20             |       |                   | 2.000                 | 5              | 0.5      | 0.37     |
| BPSY00130951102M00 | 1000            | 20             |       |                   | 8.300                 | 2              | 0.32     | 0.17     |

**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 10% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
  - L : E4980 or HP4284A , 100kHz/ 0.1V
  - RDC : Chroma 16502
  - Isat : HP4284A+HP42841A or WK3260B+WK3265B

## Test Instruments : HP4294A Impedance / Material Analyzer



Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without Chilisin approval. Please contact our sales department before ordering.

# SMD Shielded Power Inductors – BPSY Series

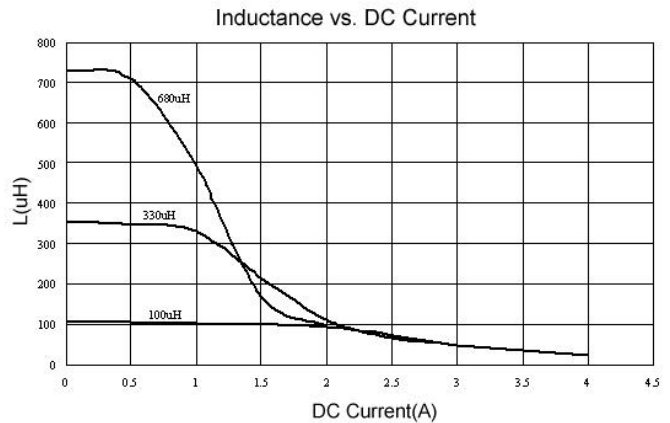
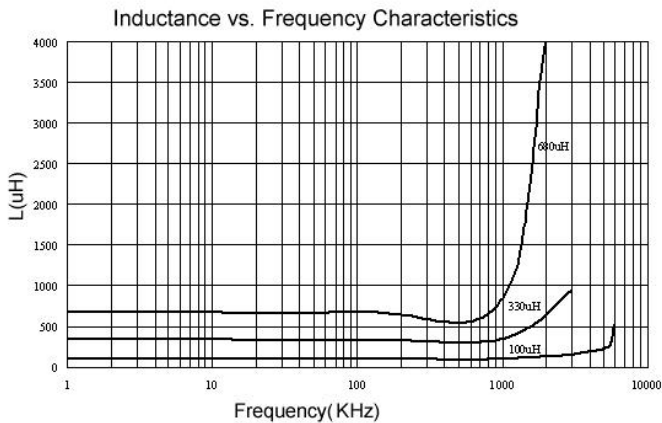
## Electrical Characteristics

| Part Number        | Inductance (μH) | Tolerance (±%) | Q Min | Q Frequency (kHz) | DC Resistance (Ω) Max | Isat (A) | Irms (A) | SRF (MHz) Typ. |
|--------------------|-----------------|----------------|-------|-------------------|-----------------------|----------|----------|----------------|
| BPSY00191576100M00 | 10              | 20             | 40    | 100               | 0.040                 | 5.5      | 3.9      | 24             |
| BPSY00191576150M00 | 15              | 20             | 40    | 100               | 0.048                 | 4.5      | 3.4      | 16             |
| BPSY00191576220M00 | 22              | 20             | 30    | 100               | 0.059                 | 3.5      | 3.1      | 14             |
| BPSY00191576330M00 | 33              | 20             | 40    | 100               | 0.075                 | 3.3      | 2.8      | 11             |
| BPSY00191576470M00 | 47              | 20             | 40    | 100               | 0.097                 | 2.7      | 2.4      | 8.0            |
| BPSY00191576680M00 | 68              | 20             | 40    | 100               | 0.140                 | 2.2      | 2.0      | 7.0            |
| BPSY00191576101M00 | 100             | 20             | 40    | 100               | 0.210                 | 1.7      | 1.7      | 5.5            |
| BPSY00191576151M00 | 150             | 20             | 50    | 100               | 0.300                 | 1.3      | 1.3      | 4.8            |
| BPSY00191576221M00 | 220             | 20             | 50    | 100               | 0.470                 | 1.1      | 1.1      | 4.0            |
| BPSY00191576331M00 | 330             | 20             | 50    | 100               | 0.780                 | 0.86     | 0.86     | 3.0            |
| BPSY00191576471M00 | 470             | 20             | 50    | 100               | 1.08                  | 0.73     | 0.73     | 2.4            |
| BPSY00191576681M00 | 680             | 20             | 60    | 100               | 1.40                  | 0.64     | 0.64     | 2.0            |
| BPSY00191576102M00 | 1000            | 20             | 60    | 100               | 2.01                  | 0.53     | 0.53     | 1.0            |

**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 10% 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  
 RDC : Chroma 16502  
 Isat : HP4284A+HP42841A or WK3260B+WK3265B

## Test Instruments : HP4294A Impedance / Material Analyzer

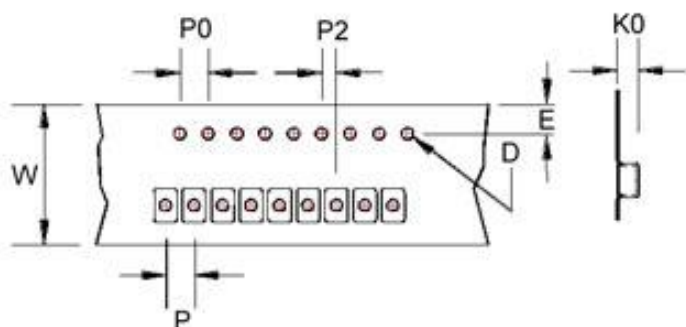


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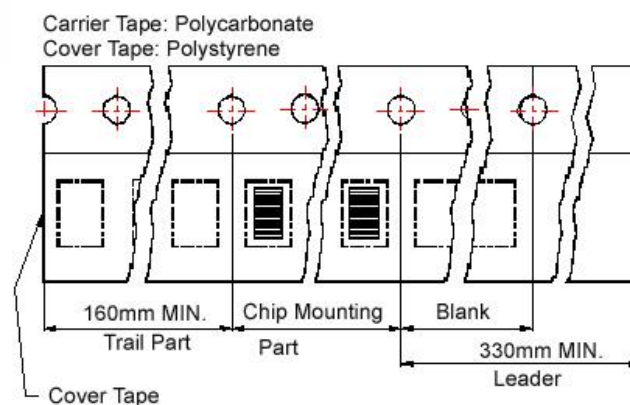
# SMD Shielded Power Inductors – BPSY Series

## Packaging Specifications

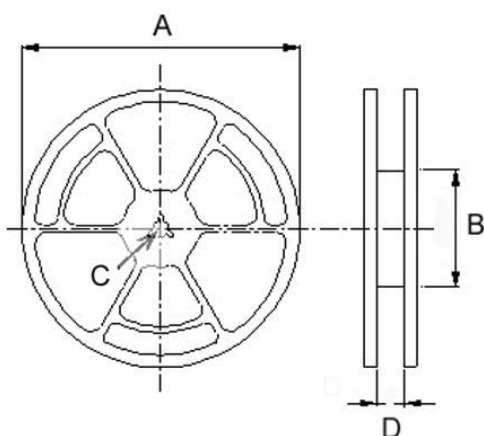
Tape Dimensions



Tape Material



Reel Dimensions



### Dimensions

| TYPE         | Tape Dimensions |      |      |    |    |    |    | Reel Dimensions |     |    |      | Quantity<br>(PCS / REEL) |
|--------------|-----------------|------|------|----|----|----|----|-----------------|-----|----|------|--------------------------|
|              | K0              | D    | E    | W  | P  | P0 | P2 | A               | B   | C  | D    |                          |
| BPSY00130951 | 5.4             | 1.55 | 1.75 | 24 | 12 | 4  | 2  | 330             | 100 | 13 | 24.4 | 1000                     |
| BPSY00191576 | 7.5             | 1.55 | 1.75 | 32 | 20 | 4  | 2  | 330             | 100 | 13 | 33.4 | 250                      |