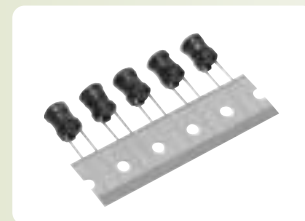


SBCP Coils



Outline

The SBCP coils are compact, lightweight drum-type choke coils for use in power supplies. They contain NEC TOKIN's high-spec. ferrite cores, boast a large per-volume rated current, and can be used in automated mounting lines.

Features

- Usable in automated mounting lines.
- Contain high-performance ferrite.
- Comparatively large rated current.
- Thin type (H=6mm^{max.}); meeting a market trend toward thinner design in application products.

Applications

- Power supplies, DC-DC converters, TVs, VTRs, office automation equipment, telephones, airconditioners, home electric appliances

Others

Operating Temperature Range -20°C to +105°C
(incl. coil heat)

Storage Temperature Range -5°C to +40°C, 40% to 60% RH
(in tape status)
-20°C to +85°C (in bulk status)
Do NOT expose to direct sunlight (JIS C 805).

Rated Current See separate table for 20°C increase value; also reference values for 40°C increase plus L change rate of -10%.

Packaging Bulk type in bag
Tape type in box
SBCP-85,87,80: 500 pcs./box
SBCP-11: 400 pcs./box

● SBCP-85 Series (SBCP-85□□□H)

| Model | Inductance L(μH)/ at 10 kHz | Rdc (Ω) max. | Rated Current (A) | | |
|--------|--------------------------------|--------------------|----------------------|---------|--|
| | | | ΔT=20°C | ΔT=40°C | Current (Reference Value) (A) L change rate -10% |
| 852R2H | 2.2±20% | 0.03 | 3.30 | 4.60 | 8.90 |
| 853R3H | 3.3±20% | 0.04 | 2.50 | 3.50 | 7.70 |
| 854R7H | 4.7±20% | 0.05 | 2.30 | 3.20 | 6.10 |
| 856R8H | 6.8±20% | 0.06 | 2.00 | 2.80 | 5.00 |
| 85100H | 10±20% | 0.08 | 1.80 | 2.50 | 4.00 |
| 85150H | 15±20% | 0.11 | 1.40 | 1.90 | 3.30 |
| 85220H | 22±20% | 0.16 | 1.20 | 1.60 | 2.60 |
| 85330H | 33±20% | 0.27 | 0.90 | 1.20 | 2.20 |
| 85470H | 47±20% | 0.34 | 0.83 | 1.10 | 1.90 |
| 85680H | 68±10% | 0.49 | 0.70 | 0.98 | 1.50 |
| 85101H | 100±10% | 0.69 | 0.57 | 0.79 | 1.30 |
| 85151H | 150±10% | 1.10 | 0.46 | 0.64 | 1.00 |
| 85221H | 220±10% | 1.36 | 0.36 | 0.50 | 0.88 |
| 85331H | 330±10% | 2.15 | 0.30 | 0.42 | 0.72 |
| 85471H | 470±10% | 2.85 | 0.27 | 0.37 | 0.58 |
| 85681H | 680±10% | 4.18 | 0.21 | 0.29 | 0.50 |
| 85102H | 1000±10% | 6.90 | 0.17 | 0.23 | 0.42 |

●SBCP-87 Series (SBCP-87□□□H)

| Model | Inductance L(μH)/ at 10 kHz | Rdc (Ω) max. | Rated Current (A) | | Current (Reference Value) (A) | |
|--------|--------------------------------|--------------------|----------------------|---------|----------------------------------|--|
| | | | ΔT=20°C | ΔT=40°C | L change rate -10% | |
| 871R0H | 1.0±20% | 0.02 | 4.50 | 6.30 | 10.20 | |
| 871R5H | 1.5±20% | 0.02 | 4.20 | 5.80 | 7.00 | |
| 872R2H | 2.2±20% | 0.03 | 4.00 | 5.60 | 6.10 | |
| 873R3H | 3.3±20% | 0.03 | 3.20 | 4.40 | 4.80 | |
| 874R7H | 4.7±20% | 0.03 | 3.20 | 4.40 | 4.30 | |
| 876R8H | 6.8±20% | 0.04 | 2.80 | 3.90 | 3.40 | |
| 87100H | 10±20% | 0.05 | 2.30 | 3.20 | 2.40 | |
| 87150H | 15±20% | 0.06 | 2.10 | 2.90 | 2.20 | |
| 87220H | 22±20% | 0.08 | 1.90 | 2.60 | 1.80 | |
| 87330H | 33±20% | 0.12 | 1.50 | 2.10 | 1.50 | |
| 87470H | 47±20% | 0.15 | 1.30 | 1.80 | 1.20 | |
| 87680H | 68±10% | 0.19 | 1.16 | 1.60 | 1.00 | |
| 87101H | 100±10% | 0.30 | 0.90 | 1.20 | 0.87 | |
| 87151H | 150±10% | 0.39 | 0.79 | 1.10 | 0.70 | |
| 87221H | 220±10% | 0.57 | 0.65 | 0.91 | 0.57 | |
| 87331H | 330±10% | 0.92 | 0.50 | 0.70 | 0.47 | |
| 87471H | 470±10% | 1.30 | 0.42 | 0.58 | 0.39 | |
| 87681H | 680±10% | 1.66 | 0.33 | 0.46 | 0.32 | |
| 87102H | 1000±10% | 2.82 | 0.25 | 0.35 | 0.27 | |

●SBCP-80 Series (SBCP-80□□□H)

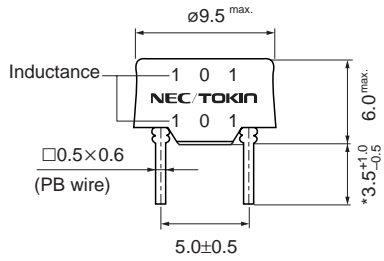
| Model | Inductance L(μH)/ at 10 kHz | Rdc (Ω) max. | Rated Current (A) | | Current (Reference Value) (A) | |
|--------|--------------------------------|--------------------|----------------------|---------|----------------------------------|--|
| | | | ΔT=20°C | ΔT=40°C | L change rate -10% | |
| 801R5H | 1.5±20% | 0.02 | 4.50 | 6.30 | 13.50 | |
| 802R2H | 2.2±20% | 0.03 | 4.00 | 5.60 | 11.70 | |
| 803R3H | 3.3±20% | 0.04 | 3.60 | 5.00 | 9.20 | |
| 804R7H | 4.7±20% | 0.04 | 3.30 | 4.60 | 7.60 | |
| 806R8H | 6.8±20% | 0.05 | 3.30 | 4.60 | 6.50 | |
| 80100H | 10±20% | 0.05 | 2.90 | 4.00 | 5.30 | |
| 80150H | 15±20% | 0.08 | 2.50 | 3.50 | 4.00 | |
| 80220H | 22±20% | 0.08 | 2.40 | 3.30 | 3.40 | |
| 80330H | 33±20% | 0.09 | 2.10 | 2.90 | 2.70 | |
| 80470H | 47±10% | 0.13 | 1.90 | 2.60 | 2.20 | |
| 80680H | 68±10% | 0.16 | 1.70 | 2.30 | 1.80 | |
| 80101H | 100±10% | 0.35 | 1.10 | 1.50 | 1.60 | |
| 80151H | 150±10% | 0.41 | 1.00 | 1.40 | 1.20 | |
| 80221H | 220±10% | 0.52 | 0.90 | 1.20 | 1.00 | |
| 80331H | 330±10% | 0.75 | 0.70 | 0.98 | 0.85 | |
| 80471H | 470±10% | 0.95 | 0.65 | 0.91 | 0.71 | |
| 80681H | 680±10% | 1.40 | 0.50 | 0.70 | 0.58 | |
| 80102H | 1000±10% | 1.89 | 0.40 | 0.56 | 0.48 | |

●SBCP-11 Series (SBCP-11□□□H)

| Model | Inductance L(μH)/ at 10 kHz | Rdc (Ω) max. | Rated Current (A) | | Current (Reference Value) (A) | |
|--------|--------------------------------|--------------------|----------------------|---------|----------------------------------|--|
| | | | ΔT=20°C | ΔT=40°C | L change rate -10% | |
| 111R2H | 1.2±20% | 0.02 | 5.50 | 7.90 | 30.90 | |
| 111R5H | 1.5±20% | 0.02 | 5.00 | 7.20 | 25.30 | |
| 112R2H | 2.2±20% | 0.02 | 4.70 | 6.70 | 21.40 | |
| 113R3H | 3.3±20% | 0.02 | 4.40 | 6.30 | 18.50 | |
| 114R7H | 4.7±20% | 0.03 | 4.10 | 5.80 | 14.60 | |
| 116R8H | 6.8±20% | 0.03 | 3.60 | 5.10 | 12.10 | |
| 11100H | 10±20% | 0.04 | 3.10 | 4.50 | 9.60 | |
| 11150H | 15±20% | 0.05 | 2.80 | 4.10 | 7.90 | |
| 11220H | 22±20% | 0.06 | 2.50 | 3.60 | 6.40 | |
| 11330H | 33±20% | 0.07 | 2.30 | 3.30 | 5.40 | |
| 11470H | 47±20% | 0.10 | 2.00 | 2.90 | 4.40 | |
| 11680H | 68±10% | 0.12 | 1.80 | 2.60 | 3.60 | |
| 11101H | 100±10% | 0.19 | 1.30 | 1.90 | 3.00 | |
| 11151H | 150±10% | 0.26 | 1.10 | 1.60 | 2.40 | |
| 11221H | 220±10% | 0.40 | 0.95 | 1.30 | 2.00 | |
| 11331H | 330±10% | 0.60 | 0.74 | 1.00 | 1.60 | |
| 11471H | 470±10% | 0.76 | 0.66 | 0.93 | 1.40 | |
| 11681H | 680±10% | 1.00 | 0.55 | 0.77 | 1.10 | |
| 11102H | 1000±10% | 1.70 | 0.42 | 0.60 | 0.96 | |

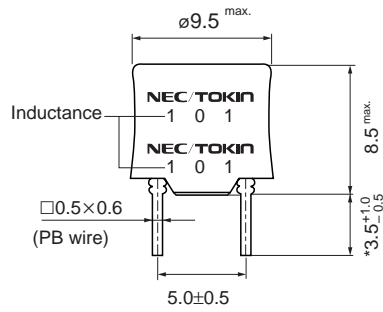
Shape and Dimensions

●SBCP-85 Series (SBCP-85□□□H)



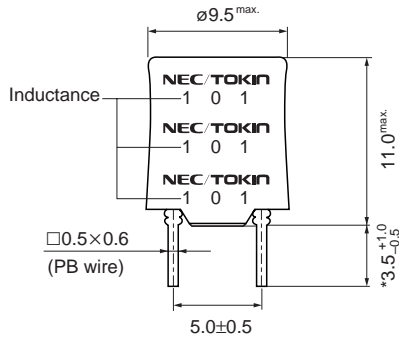
*For bulk type
*Lead pitch is a value at the root end.

●SBCP-87 Series (SBCP-87□□□H)



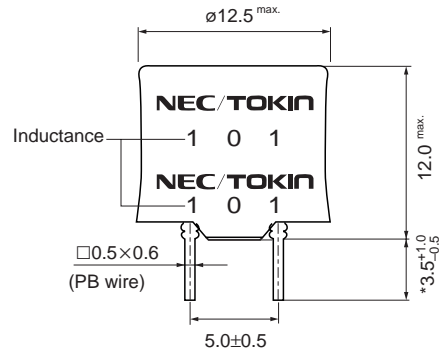
*For bulk type
*Lead pitch is a value at the root end.

●SBCP-80 Series (SBCP-80□□□H)



*For bulk type
*Lead pitch is a value at the root end.

●SBCP-11 Series (SBCP-11□□□H)



*For bulk type
*Lead pitch is a value at the root end.

Numbering System

SBCP - 85 - 101 H B
① ② ③ ④ ⑤

- ① Series name
- ② Core size (Outer size × height)

Model Numbers and Core Sizes

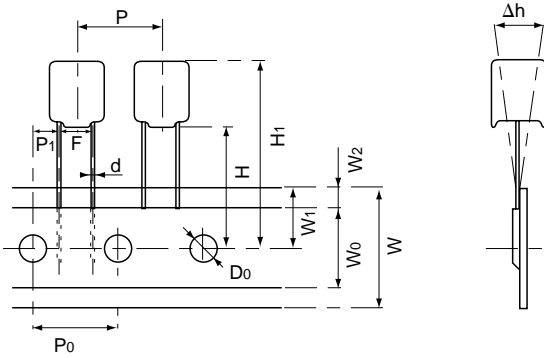
The model number (5 digits) consists of core size and inductance as shown below.

| Model | Core Size[mm] |
|--------------|---------------|
| SBCP-85 □□□H | ø8.0×5.0 |
| SBCP-87 □□□H | ø8.0×7.5 |
| SBCP-80 □□□H | ø8.0×10.0 |
| SBCP-11 □□□H | ø11.0×11.0 |

- ③ Inductance: $\overset{\text{**}}{10} \times \overset{\text{**}}{10}^1 = 100$ (μH)
- ④ Presence of external tube: H shows presence.
- ⑤ Packaging type: No indication for tape type.
"B" indicates bulk type.

* Samples may not include tube markings.
* Tape Dimensions(⇒See page 67.)

Tape Dimensions (REEL)



| [mm] | | | | | |
|--------------------------------------|---------------------|------------------------------------|----------------|--------------------------------------|----------------------|
| P | P ₀ | P ₁ | F | W | W ₀ |
| 12.7±1.0 | 12.7±0.3 | 3.85±0.7 | 5.0±1.0 | 18.0 ^{+1.0} _{-0.5} | 12.5 ^{min.} |
| W ₁ | W ₂ | H | D ₀ | d | Δh |
| 9.0 ^{+0.75} _{-0.5} | 3.0 ^{max.} | 18.0 ^{+2.0} ₋₀ | ø4.0±0.2 | 0.6 | 0±2.0 |

| [mm] | | | | |
|---------------------|----------------------|----------------------|----------------------|----------------------|
| H ₁ size | SBCP-85□□□H | SBCP-87□□□H | SBCP-80□□□H | SBCP-11□□□H |
| | 26.0 ^{max.} | 28.5 ^{max.} | 31.0 ^{max.} | 32.0 ^{max.} |