

## Overview

Ferrite power inductors are useful in various fields and suitable for DC/DC converters and noise filters.

## Applications

Typical applications include LED lighting, xDSL modems, copying machines, flat TVs, smart meters and power supplies.

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-34970699  
 勝特力电子(深圳) 86-755-83298787  
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## Benefits

- Drum core construction
- Nickel-Zinc (NiZn) ferrite core
- Magnetic non-shield type
- Operating temperature range of up to +105°C
- Available in tape and reel
- RoHS Compliant

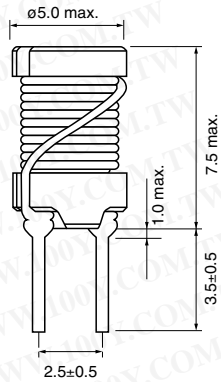


## Ordering Information

SBCP-	47HY	150	H	B
Series	Core Size	Inductance Code (μH)	External Tube	Packaging Type
SBCP	Outer size x height 47HY = φ 4.5 × 7.0 87HY = φ 8.0 × 7.5 80HY = φ 8.0 × 10.0 11HY = φ 11.0 × 11.0 14HY = φ 11.0 × 14.0	First two digits represent significant figures. Third digit specifies number of zeros.	Blank = None H = Presence (only for core sizes 87HY, 80HY and 11HY)	B = Bulk Blank = Tape and reel

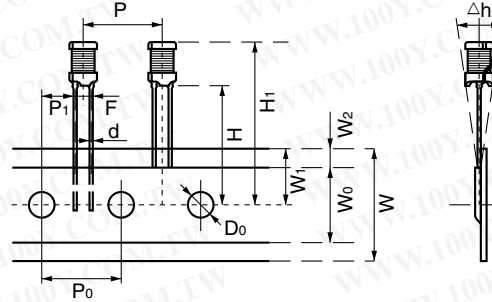
## Dimensions – Millimeters

### SBCP-47HY Series



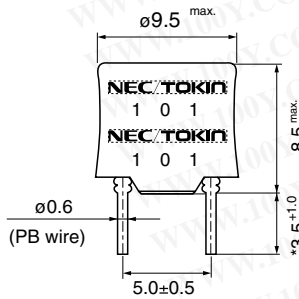
\*Lead: hard copper wire (ø0.5)

### Dimensions of Indented Square Hole Plastic Tape



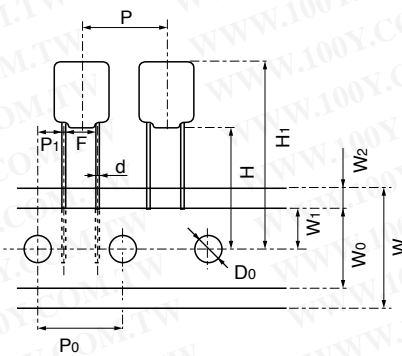
P	P <sub>0</sub>	P <sub>1</sub>	F	W	W <sub>0</sub>	W <sub>1</sub>	W <sub>2</sub>	H	H <sub>1</sub>	D <sub>0</sub>	d	Δh
±1	±0.3	±0.7	±0.5	+1, -0.5	Minimum	+0.75, -0.5	Maximum	+0.2, -0	Maximum	±0.2	ø 0.5	±2
12.7	12.7	5.1	2.5	18	12.5	9	3	18	29.5	ø 4	ø 0.5	0

### SBCP-87HY Series



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

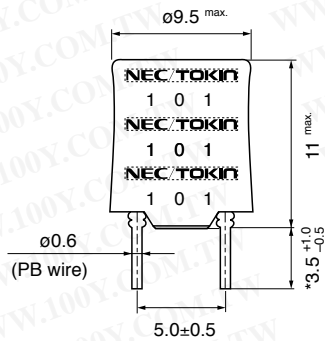
### Dimensions of Indented Square Hole Plastic Tape



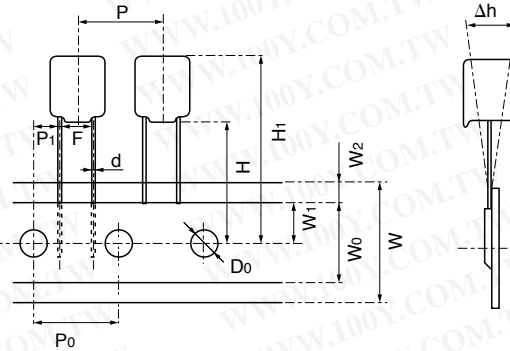
P	P <sub>0</sub>	P <sub>1</sub>	F	W	W <sub>0</sub>	W <sub>1</sub>	W <sub>2</sub>	H	H <sub>1</sub>	D <sub>0</sub>	d	Δh
±1.0	±0.3	±0.7	±1	+1, -0.5	Minimum	+0.75, -0.5	Maximum	+0.2, -0	Maximum	±0.2	ø 0.6	±2
12.7	12.7	3.85	5	18	12.5	9	3	18	28.5	ø 4	ø 0.6	0

## Dimensions – Millimeters cont'd

### SBCP-80HY Series



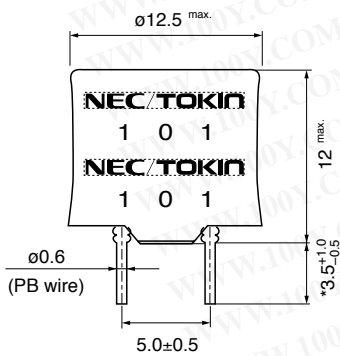
### Dimensions of Indented Square Hole Plastic Tape



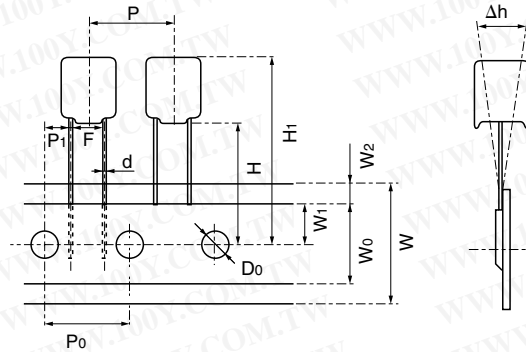
\* For bulk type  
\* Lead pitch is value at the root end.

P	P <sub>0</sub>	P <sub>1</sub>	F	W	W <sub>0</sub>	W <sub>1</sub>	W <sub>2</sub>	H	H <sub>1</sub>	D <sub>0</sub>	d	Δh
±1	±0.3	±0.7	±1	+1, -0.5	Minimum	+0.75, -0.5	Maximum	+2, -0	Maximum	±0.2	∅ 0.6	±2
12.7	12.7	3.85	5	18	12.5	9	3	18	31	∅ 4	∅ 0.6	0

### SBCP-11HY Series



### Dimensions of Indented Square Hole Plastic Tape



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

P	P <sub>0</sub>	P <sub>1</sub>	F	W	W <sub>0</sub>	W <sub>1</sub>	W <sub>2</sub>	H	H <sub>1</sub>	D <sub>0</sub>	d	Δh
±1	±0.3	±0.7	±1	+1, -0.5	Minimum	+0.75, -0.5	Maximum	+2, -0	Maximum	±0.2	∅ 0.6	±2
12.7	12.7	3.85	5	18	12.5	9	3	18	32	∅ 4	∅ 0.6	0

## Dimensions – Millimeters cont'd

### SBCP-14HY Series

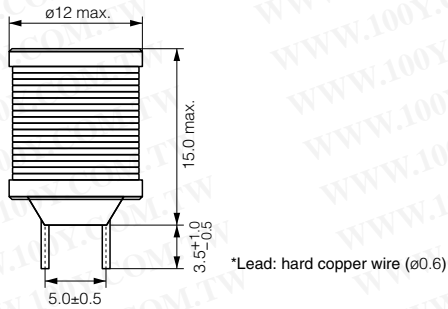


Table 1A – Ratings & Part Number Reference

Part Number	Inductance L ( $\mu$ H) at 10 kHz, 1 mA	DC Resistance ( $\Omega$ ) Maximum	Rated Current (A)	Current (Reference Value) (A)		
				$\Delta T = 20^\circ\text{C}$	$\Delta T = 40^\circ\text{C}$	L -10% (85°C)
SBCP-47HY2R2B	2.2 $\pm$ 20%	29 m	2.60	2.59	3.66	3.20
SBCP-47HY3R3B	3.3 $\pm$ 20%	37 m	2.30	2.28	3.21	2.70
SBCP-47HY6R8B	6.8 $\pm$ 20%	52 m	1.90	1.92	2.71	1.93
SBCP-47HY100B	10 $\pm$ 20%	67 m	1.60	1.69	2.38	1.60
SBCP-47HY331B	330 $\pm$ 10%	1.80	0.27	0.29	0.39	0.27
SBCP-47HY102B	1000 $\pm$ 10%	6.00	0.15	0.15	0.21	0.16

**Table 1B – Ratings & Part Number Reference**

Part Number	Inductance L (μH) at 10 kHz, 1 mA	DC Resistance (Ω) Maximum	Rated Current (A) ΔT = 20°C	Current (Reference Value) (A)	
				ΔT = 40°C	L Change Rate -10%
SBCP-87HY4R7H	4.7 ±20%	0.03	3.20	4.40	4.30
SBCP-87HY6R8H	6.8 ±20%	0.04	2.80	3.90	3.40
SBCP-87HY101H	100 ±10%	0.30	0.90	1.20	0.87
SBCP-87HY681H	680 ±10%	1.66	0.33	0.46	0.32
SBCP-80HY100H	10 ±20%	0.05	2.90	4.00	5.30
SBCP-80HY470H	47 ±10%	0.13	1.90	2.60	2.20
SBCP-80HY680H	68 ±10%	0.16	1.70	2.30	1.80
SBCP-80HY820H	82 ±10%	0.24	1.30	1.80	1.70
SBCP-80HY101H	100 ±10%	0.35	1.10	1.50	1.60
SBCP-80HY331H	330 ±10%	0.75	0.70	0.98	0.85
SBCP-80HY102H	1000 ±10%	1.89	0.40	0.56	0.48
SBCP-11HY470H	47 ±20%	0.10	2.00	2.90	4.40
SBCP-11HY101H	100 ±10%	0.19	1.30	1.90	3.00
SBCP-11HY681H	680 ±10%	1.00	0.55	0.77	1.10
SBCP-14HY221B	220 ±10%	0.31	1.05	1.51	2.20
SBCP-14HY331B	330 ±10%	0.38	0.95	1.35	1.84
SBCP-14HY102B	1000 ±10%	1.16	0.59	0.82	1.01
SBCP-14HY222B	2200 ±10%	2.36	0.38	0.54	0.69
SBCP-14HY332B	3300 ±10%	2.42	0.33	0.46	0.57
Part Number	Inductance L (μH) at 10 kHz, 1 mA	DC Resistance (Ω) Maximum	Rated Current (A) ΔT = 20°C	Current (Reference Value) (A)	
				ΔT = 40°C	L Change Rate -10%

**Packaging**

Series	Packaging Type	Pieces per Box
SBCP-47HY	Bulk	6,000
	Tape & Reel	4,000 <sup>1</sup>
SBCP-87HY	Bulk	4,000
	Tape & Reel	2,000 <sup>2</sup>
SBCP-80HY	Bulk	4,000
	Tape & Reel	2,000 <sup>2</sup>
SBCP-11HY	Bulk	2,000
	Tape & Reel	1,600 <sup>3</sup>
SBCP-14HY	Bulk	1,500

<sup>1</sup> The box contains 4 reels of 1,000 pieces each

<sup>2</sup> The box contains 4 reels of 500 pieces each

<sup>3</sup> The box contains 4 reels of 400 pieces each

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