



# Ferrite Inductors

## Conformally Coated SBC & SBCP Coils



### Why Choose KEMET

KEMET Electronics Corporation is a leading global supplier of electronic components. We offer our customers the broadest selection of capacitor technologies in the industry, along with an expanding range of electromechanical devices, electromagnetic compatibility solutions and supercapacitors. Our vision is to be the preferred supplier of electronic component solutions for customers demanding the highest standards of quality, delivery and service.

### Features & Benefits

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

### Product Checklist

- How much inductance is needed?
- What is the circuit's ripple current and frequency?
- What is the operating temperature range?
- Are there any size constraints?

For more information, samples and engineering kits, please visit us at [www.kemet.com](http://www.kemet.com) or call 1.877.myKEMET.

### Applications

- Embedded computer systems
- LED lighting
- Smart meters
- Electric home appliances
- Smoke detectors & alarm systems
- Power supplies
- Filtering for decoupling networks



SBC Coils



SBCP Coils

### Ordering Information

#### SBC Coils

	1-	101-	571
Series	Core Size	Inductance Code ( $\mu$ H)	Rate Current Code (mA)
SBC	1 2 3 4 6 7 8 9	First two digits represent significant figures. Third digit specifies number of zeros.	First two digits represent significant figures. Third digit specifies number of zeros.

#### SBCP Coils

SBCP-	47HY	150	H	B
Series	Core Size	Inductance Code ( $\mu$ H)	External Tube	Packaging Type
SBCP	Outer size x height 47HY = $\phi$ 4.5 x 7.0 87HY = $\phi$ 8.0 x 7.5 80HY = $\phi$ 8.0 x 10.0 11HY = $\phi$ 11.0 x 11.0 14HY = $\phi$ 11.0 x 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 & reel



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### Electrical/Physical Characteristics

#### SBC Coils

Part Number	Inductance L ( $\mu$ H) at 10 kHz/1 mA	Maximum DC Resistance ( $\Omega$ )	Rated Current (A) $\Delta T = 20^\circ\text{C}$	Current (Reference Value) (A)	
				$\Delta T = 40^\circ\text{C}$	L Change Rate at 10%
SBC1	1.0 $\pm$ 20% to 1,000 $\pm$ 10%	0.03 to 4.90	3.10 to 0.21	4.30 to 0.29	5.20 to 0.14
SBC2	1.0 $\pm$ 20% to 1,000 $\pm$ 10%	0.01 to 4.00	6.10 to 0.18	8.50 to 0.25	6.40 to 0.21
SBC3	4.7 $\pm$ 20% to 1,500 $\pm$ 10%	0.02 to 3.64	4.20 to 0.25	5.80 to 0.35	4.60 to 0.26
SBC4	1.0 $\pm$ 20% to 10,000 $\pm$ 10%	0.01 to 19.5	7.40 to 0.11	10.30 to 0.15	14.90 to 0.14
SBC6	1.0 $\pm$ 20% to 10,000 $\pm$ 10%	0.01 to 13.6	9.60 to 0.16	13.40 to 0.22	37.70 to 0.35
SBC7	22.0 $\pm$ 20% to 1,000 $\pm$ 10%	0.03 to 1.20	4.30 to 0.54	6.00 to 0.75	7.80 to 1.10
SBC8	6.8 $\pm$ 20% to 1,000 $\pm$ 10%	0.02 to 0.78	8.60 to 0.76	12.00 to 1.00	13.90 to 1.10
SBC9	1.0 $\pm$ 20% to 680 $\pm$ 10%	0.01 to 1.05	9.80 to 0.55	13.70 to 0.77	31.10 to 1.10

#### SBCP Coils

Part Number	Inductance L ( $\mu$ H) at 10 kHz/1 mA	Maximum DC Resistance ( $\Omega$ )	Rated Current (A) $\Delta T = 20^\circ\text{C}$	Current (Reference Value) (A)	
				$\Delta T = 40^\circ\text{C}$	L Change Rate at 10%
SBCP-47HY	2.2 $\pm$ 20% to 1,000 $\pm$ 10%	29 m to 6.00	2.59 to 0.15	3.66 to 0.21	3.20 to 0.16
SBCP-87HY	4.7 $\pm$ 20% to 680 $\pm$ 10%	0.03 to 1.66	3.20 to 0.33	4.40 to 0.46	4.30 to 0.32
SBCP-80HY	10 $\pm$ 20% to 1,000 $\pm$ 10%	0.05 to 1.89	2.90 to 0.40	4.00 to 0.56	5.30 to 0.48
SBCP-11HY	47 $\pm$ 20% to 680 $\pm$ 10%	0.10 to 1.00	2.00 to 0.55	2.90 to 0.77	4.40 to 1.10
SBCP-14HY	220 $\pm$ 10% to 3,300 $\pm$ 10%	0.31 to 2.42	1.05 to 0.33	1.51 to 0.46	2.20 to 0.57