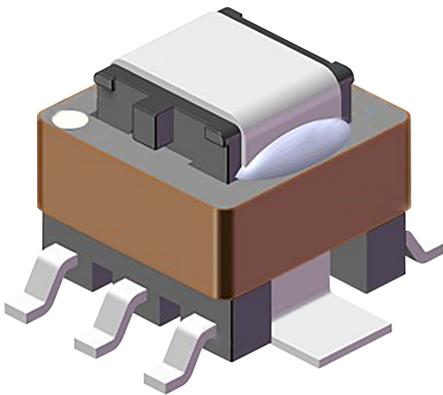


# SCS Series

## High Frequency SMD Current Sensing Transformers

The SCS Series is an entirely new line in our high frequency transformer product line offering. These surface mount components are used for detecting the current passing directly through an applications conductor. They can accurately sense current flow in power supply circuits through a non-invasive way, along with safety and control circuits.

The current sensor can be used in a variety of applications including feedback control, load drop/shutdown protection, safety/control circuits and power supply DC to DC converters/chargers. They present a cost effective low loss approach to measuring currents in high frequency voltage regulators and switch mode power supplies



### General Features

- Very low DC resistance
- Different turns ratios
- Designed for automatic pick and place
- Surface mount technology

### Specifications

- EE Core, 5.0
- Frequency range 50 kHz to 1 MHz
- Sensing current primary rating up to 10 Amps
- Primary current of 10 A causes less than 40°C temperature rise above 25°C ambient. Higher current causes an increased temperature rise
- Operating Temperature Range: -40 °C to +125 °C
- Storage conditions: If the product is preserved for more than 1 year below 35 °C and humidity 35-65% RH, the solderability of the terminals may deteriorate

### Applications

- Switching power supplies
- Feedback control
- Overload sensing
- Motor control
- Load drop/shut down detection

**PRODUCT IDENTIFICATION**

**SCS - 100 2K**

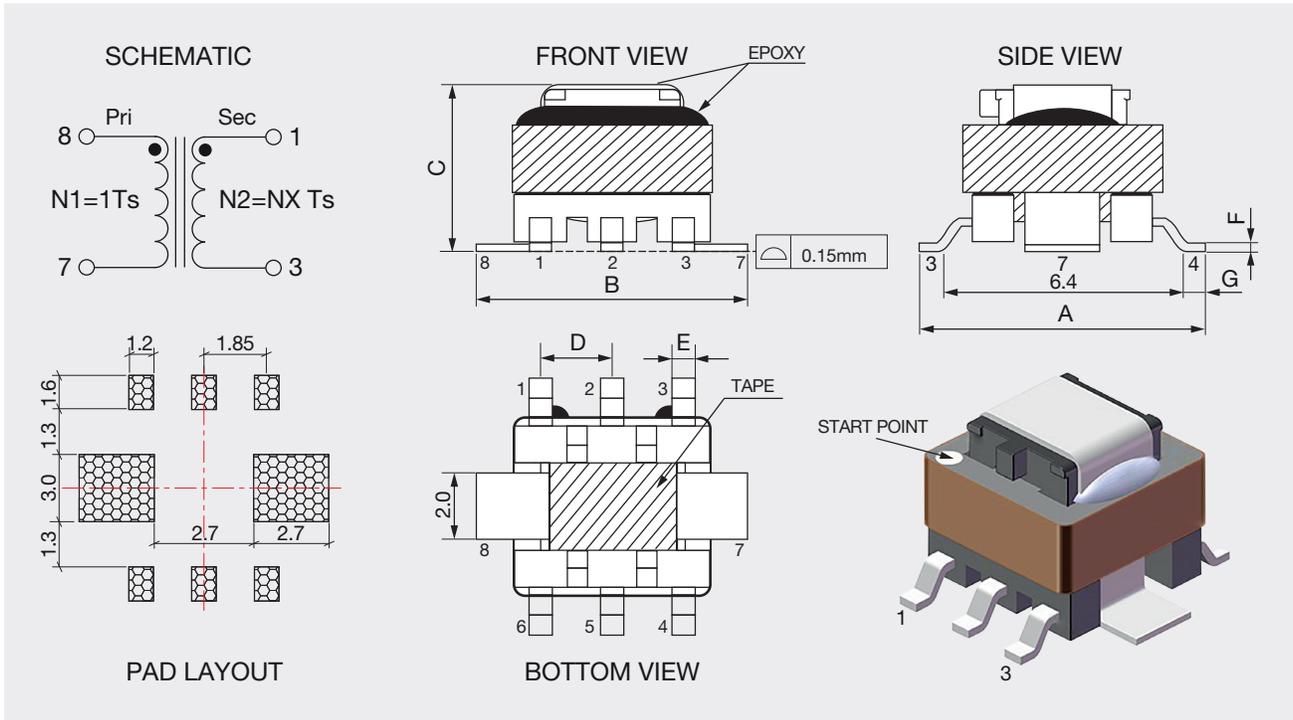
(1)      (2)      (3)

- (1) Type: Surface Mount Devices
- (2) Secondary turns: 100
- (3) Secondary inductance: 2K = 2000

**MECHANICAL SPECIFICATIONS**

Dimensions are in mm.

SERIES	A Max	B Max	C Max	D ± 0.3	E ± 0.1	F ± 0.2	G ± 0.2
SCS	8.38	8.0	5.5	185	0.6	0.25	0.7



**Custom versions available upon request.**



128 Atlantic Avenue, Lynbrook, NY 11563  
 Toll Free 866-239-5777 | Tel 516-239-5777 | Fax 516-239-7208  
 sales@signaltransformer.com | techhelp@signaltransformer.com

[belfuse.com/signal](http://belfuse.com/signal)

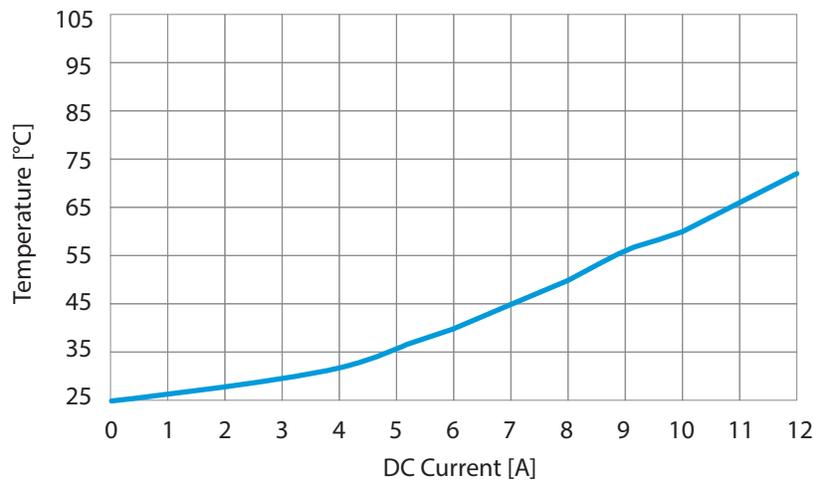
## ELECTRICAL SPECIFICATIONS

Electrical specifications for all part numbers measured at 25°C unless otherwise stated.

Part Number	Turns ratio Sec : Pri	Secondary Inductance @ 100 kHz 0.1 V (uH) Min	DCR		Hi-Pot Pri-Sec *	Primary Current (A) Max.
			Sec Max (Ω)	Pri Ref (mΩ)		
SCS-2080	20:1	80	0.40	0.70	500	10
SCS-30180	30:1	180	0.87	0.70	500	10
SCS-40320	40:1	320	1.14	0.70	500	10
SCS-50500	50:1	500	1.85	0.70	500	10
SCS-60730	60:1	730	2.30	0.70	500	10
SCS-70980	70:1	980	4.75	0.70	500	10
SCS-1002K	100:1	2000	5.50	0.70	500	10
SCS-1253K	125:1	3000	11.5	0.70	500	10

\* @ 0.5 mA, 3 s, 50 Hz

## TEMPERATURE RISE VS CURRENT



- Test equipment**  
 Inductance measured at 0 ADC on HP 4284A LCR meter or equivalent  
 DCR measured on Chroma 16502 micro-OHM meter or equivalent

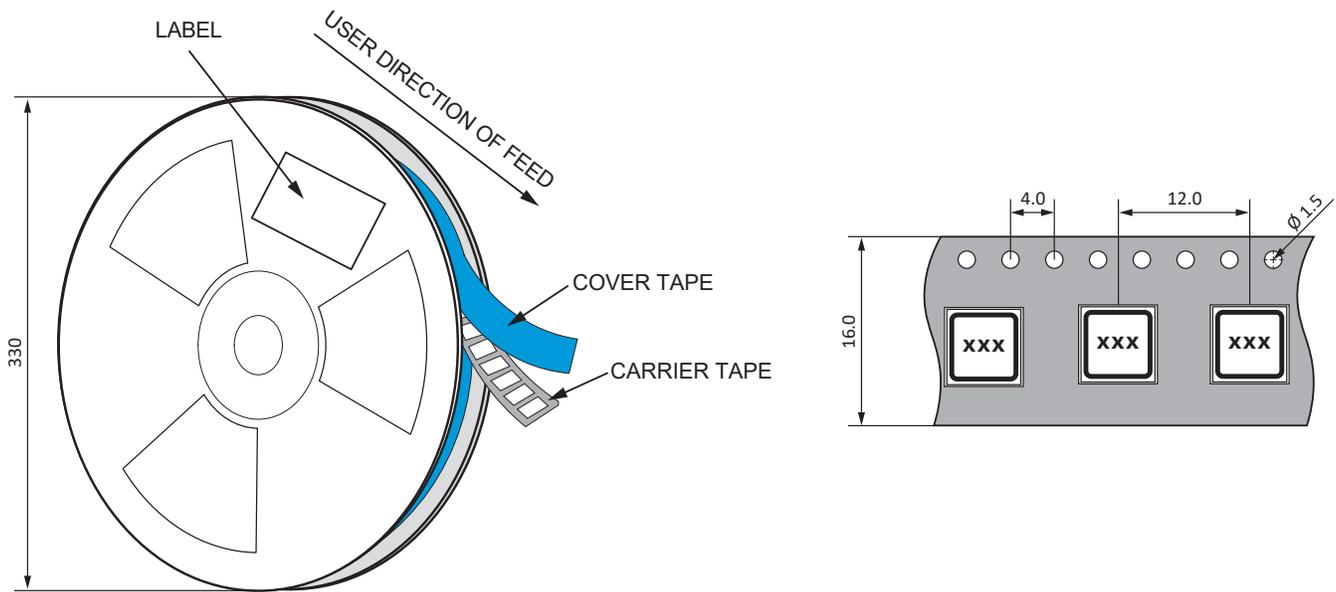
Custom versions available upon request.



128 Atlantic Avenue, Lynbrook, NY 11563  
 Toll Free 866-239-5777 | Tel 516-239-5777 | Fax 516-239-7208  
 sales@signaltransformer.com | techhelp@signaltransformer.com

[belfuse.com/signal](http://belfuse.com/signal)

**TAPE AND REEL SPECIFICATIONS**



Notes

1. Each reel: 1000 pcs
2. TAPE TRAILER 160~220 mm.
3. TAPE LEADER 388~428 mm.
4. The packaging shown on specification could be done by methods and requirements of similar products.
5. There may be slight differences between packaging picture and the real package.

Notes:

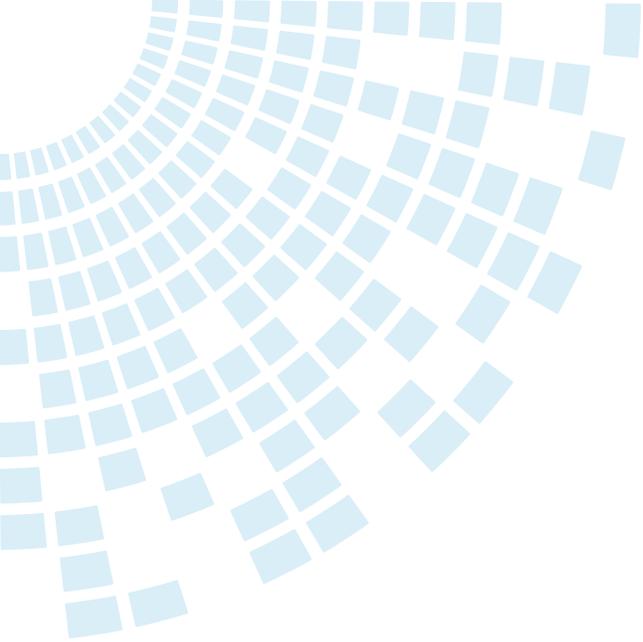
1. In general, the printing direction of the product is not fixed, but the electrode direction is fixed, unless otherwise specified
2. The storage period is less than 12 months, Be sure to follow the storage conditions (temperature: 10-30 Deg. humidity: 35 to 65% RH or less). If the storage period elapses the soldering of the terminal electrodes may deteriorate.
3. Tape and Reel specification compliant with EIA -481.

**Custom versions available upon request.**



128 Atlantic Avenue, Lynbrook, NY 11563  
 Toll Free 866-239-5777 | Tel 516-239-5777 | Fax 516-239-7208  
 sales@signaltransformer.com | techhelp@signaltransformer.com

[belfuse.com/signal](http://belfuse.com/signal)



## About Signal Transformer

Signal Transformer is known as the world's leader of wire wound magnetic solutions since 1959. With over 50 years of experience manufacturing transformers, chokes, inductors and custom or modified standard products. Signal offers not only the most comprehensive line of certified standard power conversion products, with our vast engineering, manufacturing and regulatory resources; Signal Transformer excels in the design and manufacturer of cost effective, specialized platforms.



**For more information,  
please contact us:**

128 Atlantic Avenue  
Lynbrook, NY 11563

**Toll Free +1 866-239-5777**

Tel +1 516-239-5777

Fax +1 516-239-7208

sales@signaltransformer.com  
techhelp@signaltransformer.com

**[belfuse.com/signal](https://belfuse.com/signal)**

