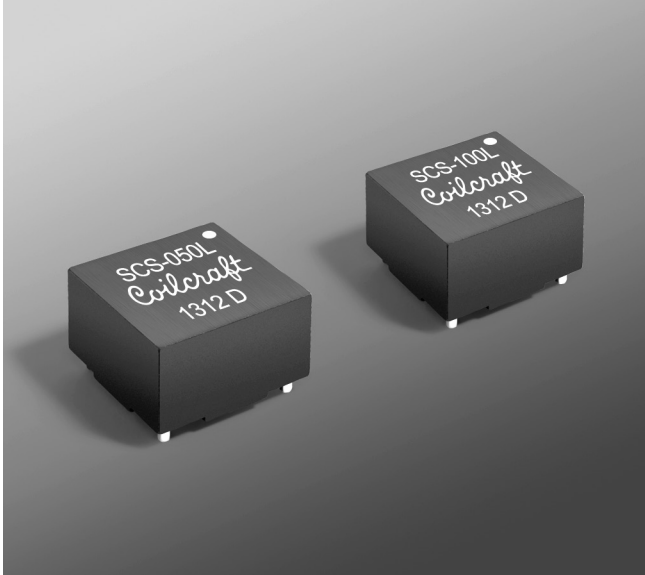




# SMT Current Sense Transformer SCS Series



- Sensed current up to 30 A
- Designed for up to 1 MHz and above
- 500 Vrms, one minute isolation (hipot) between windings.

**Core material** Ferrite

**Terminations** RoHS compliant matte tin over nickel over phos bronze

**Weight** 3.4 – 3.7 g

**Ambient temperature** –40°C to +125°C

**Storage temperature** Component: –40°C to +125°C.  
Tape and reel packaging: –40°C to +80°C

**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Packaging** 200/13" reel Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 3.0 mm pocket depth

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf

Part number <sup>1</sup>	Turns (N) pri:sec	Inductance <sup>2</sup> min (mH)	DCR max <sup>3</sup> (Ohms)		Frequency range <sup>4</sup> (kHz)	Volt-time product <sup>5</sup> (Vμsec)	Sensed current I <sub>in</sub> <sup>6</sup> max (A)	Terminating resistance R <sub>T</sub> <sup>7</sup> (Ohms)
			pri	sec				
SCS-050L_	1:50	3.8	0.0024	0.90	6 – >1000	80	30	1.7
SCS-100L_	1:100	14.8	0.0024	1.80	3 – >1000	160	30	3.3
SCS-200L_	1:200	59.2	0.0024	3.90	2 – >1000	320	30	6.7

1. When ordering, please specify **packaging** code:

**SCS-200LD**

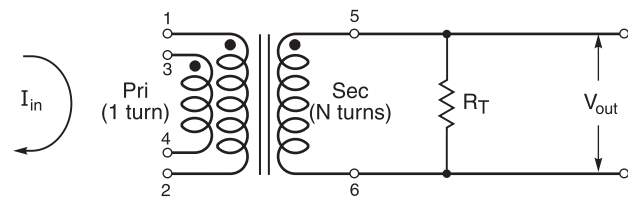
**Packaging:** **D** = 13" machine-ready reel. EIA-481 embossed plastic tape (200 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

**B** = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

- Inductance measured between secondary pins at 10 kHz, 0.06 Vrms, 0 Adc.
- Primary DCR is measured with the windings connected in parallel.
- For specific questions regarding frequency range, please contact us at [cst@coilcraft.com](mailto:cst@coilcraft.com).
- Maximum volt-time product is for the secondary, based on 2000 Gauss.
- Primary current of 30 A causes less than 25°C temperature rise from 25°C ambient. Higher current causes a greater temperature rise (see Temperature Rise vs Current curve).
- Terminating resistance (R<sub>T</sub>) value is based on 1 Volt output with 30 Amps flowing through the primary. Varying terminating resistance increases or decreases output Voltage/Ampere according to the following equation:  
 $R_T = V_{out} \times N_{sec} / I_{in}$ .
- Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

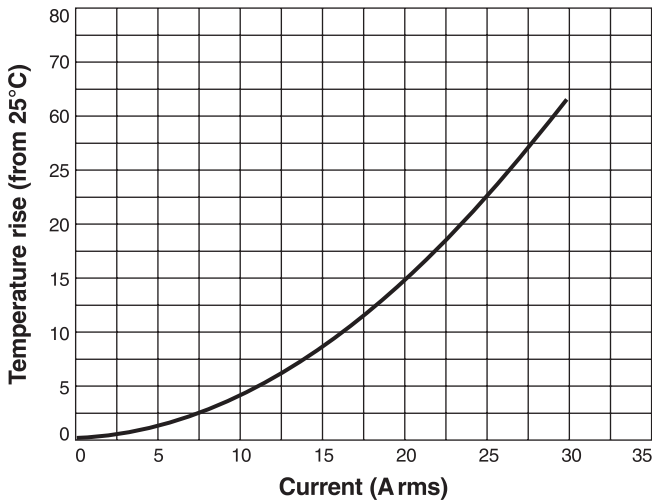
## Typical Circuit



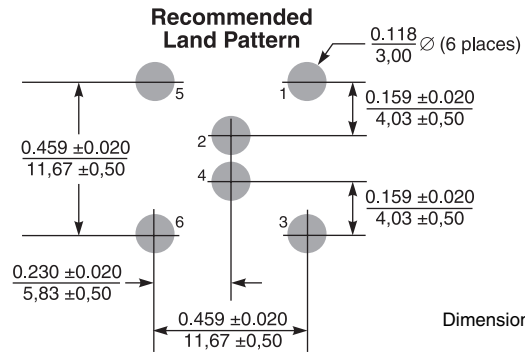
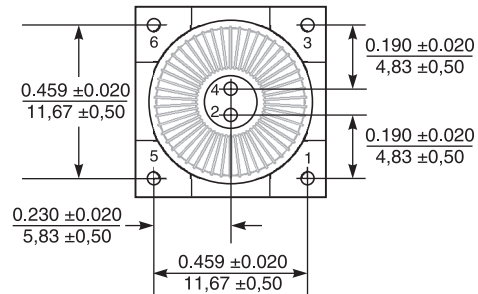
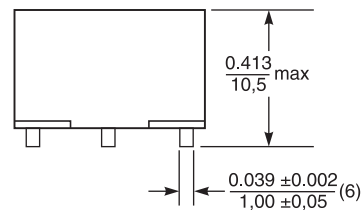
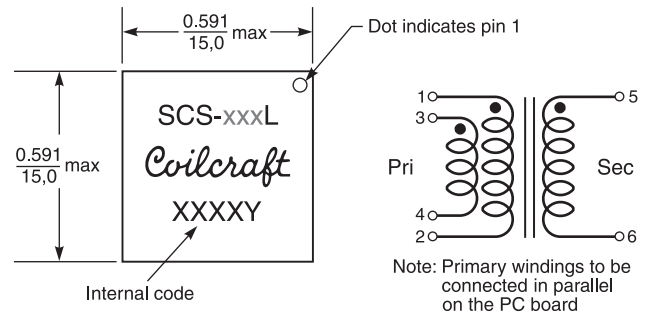


# SCS Series Current Sense Transformers

## Temperature Rise vs Current



## Dimensions



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$



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