

**NEW!**

# Current Sense Transformers – SCS Series



- Sensed current up to 30 A
- Frequency range up to 1 MHz
- 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)**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**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

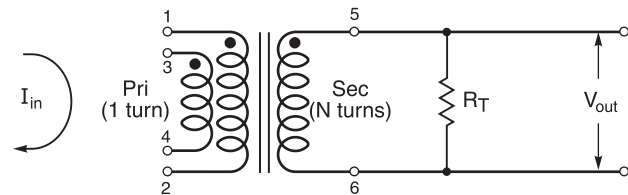
| Part number <sup>1</sup> | Turns (N)<br>pri:sec | Inductance <sup>2</sup><br>min (mH) | DCR max <sup>6</sup><br>(Ohms) |      | Frequency<br>range<br>(kHz) | Volt-time<br>product <sup>4</sup><br>(Vμsec) | Sensed<br>current I <sub>in</sub> <sup>5</sup><br>max (A) | Terminating<br>resistance R <sub>T</sub> <sup>6</sup><br>(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).B = Less than full reel. In tape, but not machine ready.  
To have a leader and trailer added (\$25 charge), use code letter C instead.

- Inductance measured between secondary pins at 10 kHz, 0.06 Vrms, 0 Adc.
- Primary DCR is measured with the windings connected in parallel.
- 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



www.coilcraft.com

**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

Document 1103-1 Revised 10/30/14

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# SCS Series Current Sense Transformers

## Temperature Rise vs Current



## Dimensions

