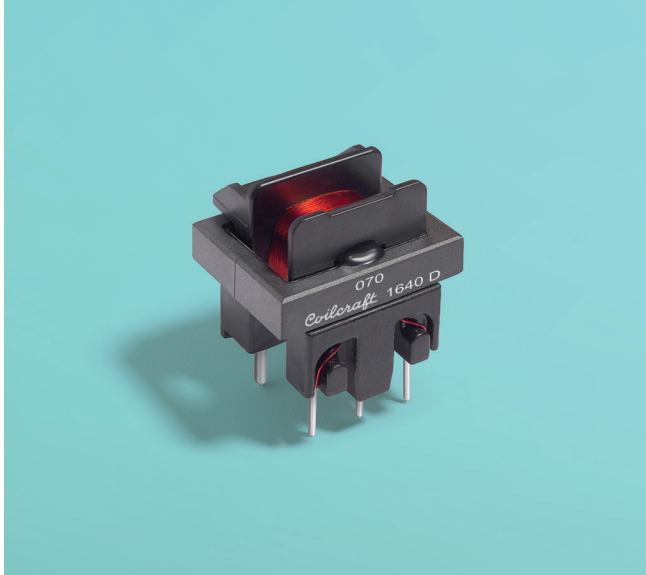


**NEW!**

# Current Sense Transformers ST630TCB



- Sensed current up to 40 A
- Frequency range 400 Hz – to 1 MHz
- Very low primary DC resistance
- Meets Reinforced Insulation per UL 60950-1
- 4000 Vrms, one minute isolation (hipot) between windings

**Core material** Ferrite

**Terminations** Tin-silver-copper over tin over copper over steel (pins 1 – 3); Tin-silver-copper over tin over nickel over copper (pins 4 – 5)

**Weight** 7.0 – 8.5 g

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

**Maximum part temperature** +165°C (ambient + temp rise)

**Storage temperature** Component: –55°C to +165°C.

**Tray packaging:** –40°C to +80°C

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

**Packaging** 100 per tray

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

Part number <sup>1</sup>	Turns (N) pri:sec	Inductance <sup>2</sup> min (mH)	DCR max (Ohms)		Frequency min (kHz)	Volt-time product <sup>3</sup> (Vµsec)	Sensed current $I_{in}$ <sup>4</sup> max (A)	Terminating resistance $R_T$ <sup>5</sup> (Ohms)
			pri	sec				
ST630TCB1070LZ	1:70	3.3	0.00084	0.83	1.8	277	40	1.75
ST630TCB1100LZ	1:100	6.8	0.00084	1.23	1.3	395	40	2.5
ST630TCB1200LZ	1:200	7.2	0.00084	3.95	0.6	791	40	5.0
ST630TCB1300LZ	1:300	12.0	0.00084	7.84	0.4	1186	40	7.5

1. When ordering, please specify **termination** and **screening** codes:

**ST630TCB1300LZ**

**Termination:** **L** = Tin-silver-copper over tin over copper over steel (pins 1 – 3); Tin-silver-copper over tin over nickel over copper (pins 4 – 5)

**S** = Tin-lead over tin over copper over steel (pins 1 – 3); Tin-lead over tin over nickel over copper (pins 4 – 5)

**Screening:** **Z** = Unscreened

**H** = Group A screening per Coilcraft CP-SA-10001

- Screening performed to the document's latest revision.
- Custom testing also available.
- Country of origin restrictions available; prefix option G.

2. Inductance measured between secondary pins at 10 kHz, 0.1 Vrms, 0 Adc.

3. Volt-time product is for the secondary, between pin 3 and 1.

4. Primary current of 40 A causes less than 40°C temperature rise from 25°C ambient. Higher current causes a greater temperature rise (see Temperature Rise vs Current curve).

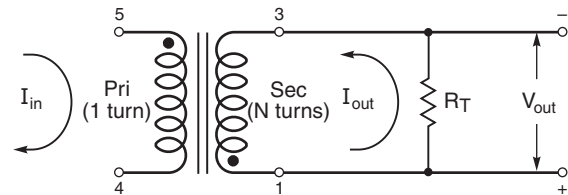
5. Terminating resistance ( $R_T$ ) value is based on 1 Volt output with 40 Amps flowing through the primary. Varying terminating resistance increases or decreases output Voltage/Ampere according to the following equation:

$$R_T = V_{out} \times N_{sec} / I_{in}$$

6. Electrical specifications at 25°C.

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

## Typical Circuit



**Coilcraft CPS**  
CRITICAL PRODUCTS & SERVICES

1102 Silver Lake Road  
Cary, IL 60013  
Phone 800-981-0363

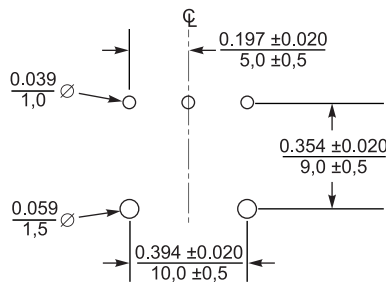
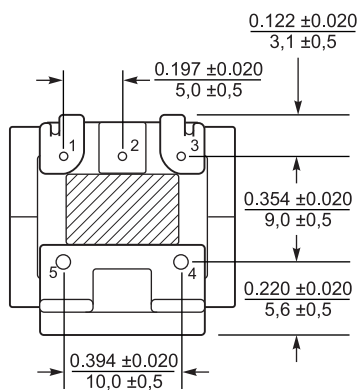
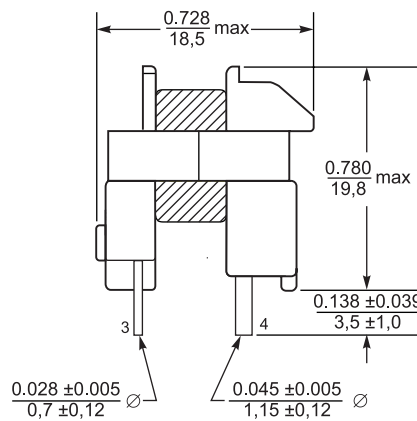
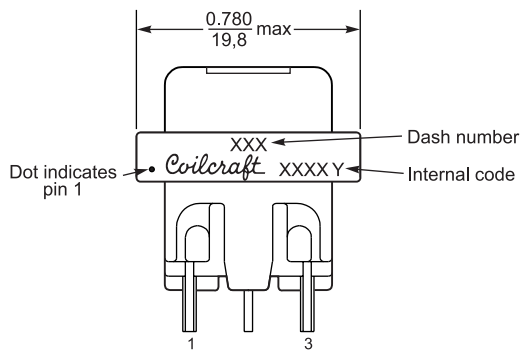
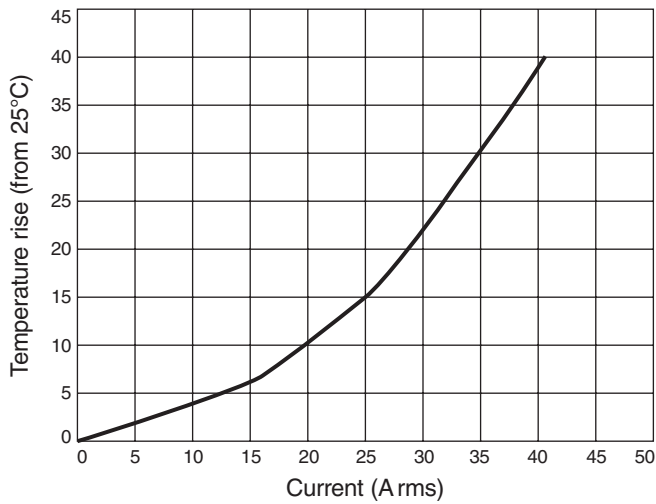
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Document ST1395 -1 Revised 12/08/21

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

# ST630TCB Current Sense Transformers

## Temperature Rise vs Current



**Suggested PC Board Layout**

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



CRITICAL PRODUCTS & SERVICES

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