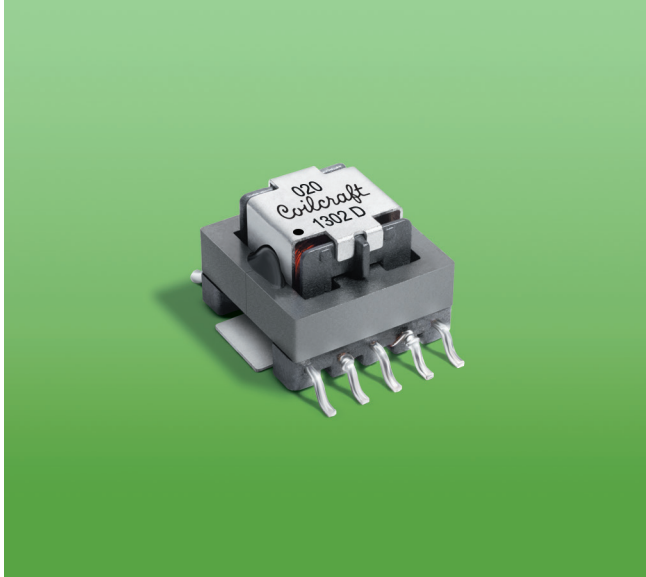


NEW!

Current Sense Transformers ST629TCB



- Sensed current up to 47 A; Designed for frequency range up to 1 MHz and above.
- Very low primary DC resistance
- 1500 Vrms, one minute isolation (hipot) between windings

Core material Ferrite

Terminations Tin-silver over tin over nickel over phos bronze (pins 1-10); Matte tin over nickel over copper (pins 11-12)

Weight 4 – 4.25 g

Ambient temperature –40°C to +125°C with Irms current

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

Storage temperature Component: –55°C to +165°C.
Tape and reel Packaging: –55°C to +80°C

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

Enhanced crush-resistant packaging 300/13" reel; Plastic tape: 32 mm wide, 0.5 mm thick, 20 mm pocket spacing, 10.6 mm pocket depth

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

Part number ¹	Turns (N) pri:sec	Inductance ² ±30% (mH)	DCR max (Ohms)		Frequency range ³ (kHz)	Volt-time product ⁴ (Vµsec)	Sensed current ⁵ I _{in} (A)	Terminating resistance R _T ⁶ (Ohms)
			pri	sec				
ST629TCB1020L_	1:20	0.34	0.00036	0.180	10 – >1000	50.8	47	0.5
ST629TCB1030L_	1:30	0.76	0.00036	0.265	7 – >1000	76.2	47	0.8
ST629TCB1040L_	1:40	1.36	0.00036	0.560	5 – >1000	101.6	47	1.0
ST629TCB1050L_	1:50	2.12	0.00036	0.705	4 – >1000	127.0	47	1.3
ST629TCB1060L_	1:60	3.06	0.00036	0.850	3 – >1000	152.4	47	1.5
ST629TCB1070L_	1:70	4.16	0.00036	1.00	3 – >1000	177.8	47	1.8
ST629TCB1080L_	1:80	5.44	0.00036	1.15	2 – >1000	203.2	47	2.0
ST629TCB1100L_	1:100	8.50	0.00036	1.45	2 – >1000	254.0	47	2.5
ST629TCB1125L_	1:125	13.3	0.00036	1.85	2 – >1000	317.5	47	3.1
ST629TCB1150L_	1:150	19.2	0.00036	2.25	1 – >1000	381.0	47	3.8
ST629TCB1200L_	1:200	34.0	0.00036	4.06	1 – >1000	508.0	47	5.0

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

ST629TCB1200LZ

Screening: Z = Unscreened

H = Coilcraft CP-SA-10001 Group A

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

2. Inductance measured between secondary pins 2-4 at 1 kHz, 0.1 Vrms, 0 Adc.
3. For specific questions regarding frequency range, please contact us at cst@coilcraft.com.
4. Volt-time product is for the secondary, between pin 2 and 4.
5. Primary current of 47 A causes approximately 40°C temperature rise from 25°C ambient. Higher current causes a greater temperature rise (see Temperature Rise vs Current curve).

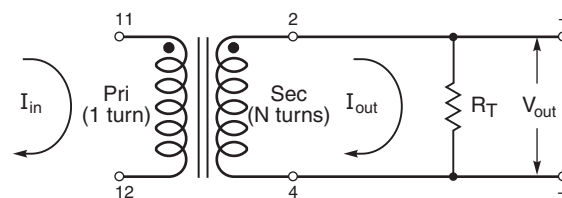
6. Terminating resistance (R_T) value is based on 1 Volt output with 40 Amps flowing through the primary. Varying terminating resistance increases or decreases output Voltage/Ampere according to the following equation:

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

7. 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

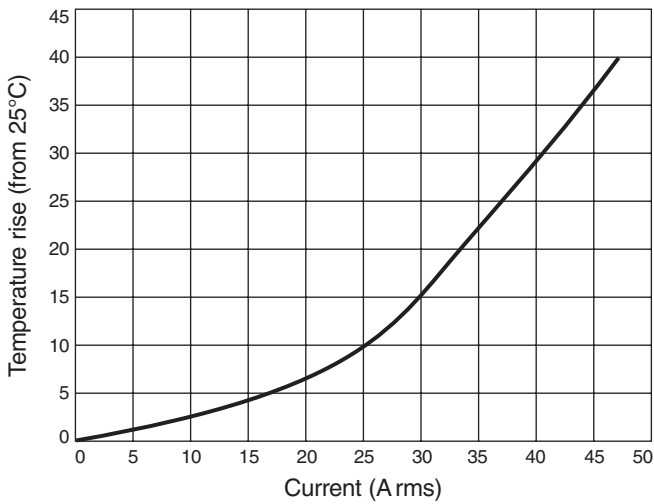
Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

Document ST1100-1 Revised 05/06/24

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.

SMT Current Sense Transformers – ST629TCB

Temperature Rise vs Current



Dimensions

