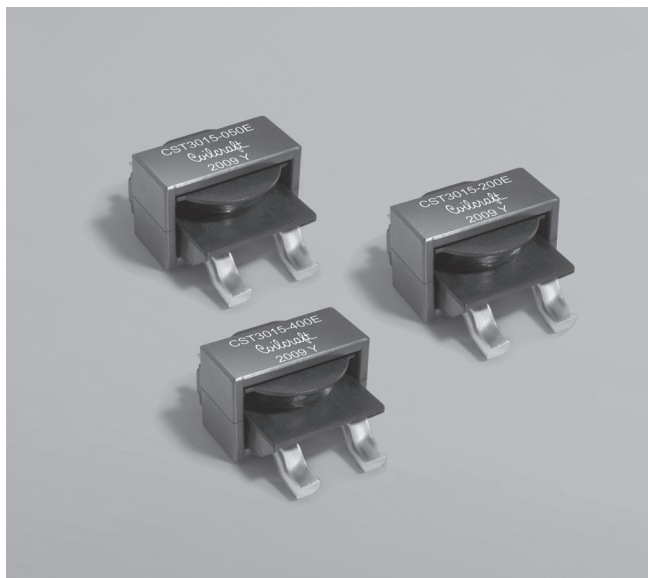




Current Sense Transformers CST3015



- Designed for up to 1 MHz and above
- Sensed current is 80 A and higher
- Very low primary DC resistance
- 5000 Vrms, one minute isolation (hipot) between windings.
- Designed to meet reinforced insulation, at least 8 mm creep-age/clearance
- AEC-Q200 qualified

Core material Ferrite

Environment RoHS compliant, halogen free

Terminations RoHS compliant tin-silver-copper over copper (pins 1 – 2); RoHS compliant tin-silver-copper over matte tin over nickel over phos bronze (pins 3 – 4)

Weight 16.6 – 16.9 g

Ambient temperature –40°C to +125°C

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

Storage temperature Component: –40°C to +165°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)

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	Turns (N)	Inductance ² nom ±25% (mH)	DCR (Ohms)		Frequency range ³ (kHz)	Volt-time product ⁴ (V-μsec)	Sensed current I_{in} ⁵ (A)	Terminating resistance R_T ⁶ (Ohms)
	pri:sec		Pri max	Sec max				
CST3015-050ED	1:50	0.80	0.0001	0.44	1.57 - >1000	319	80	0.5
CST3015-100ED	1:100	3.20	0.0001	1.54	0.78 - >1000	638	88	1
CST3015-200ED	1:200	12.80	0.0001	5.94	0.39 - >1000	1276	87	2
CST3015-300ED	1:300	28.80	0.0001	13.78	0.26 - >1000	1914	84	3
CST3015-400ED	1:400	51.20	0.0001	24.41	0.20 - >1000	2553	83	4

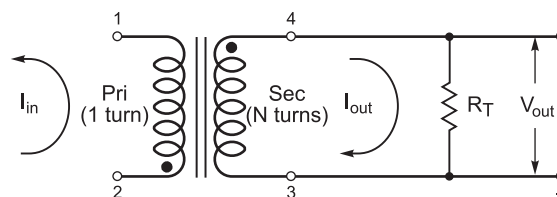
1. **Termination:** E = RoHS compliant tin-silver-copper over copper (pins 1 – 2); RoHS compliant tin-silver-copper over matte tin over nickel over phos bronze (pins 3 – 4)

Packaging: D = 13" machine-ready reel. EIA-481 embossed plastic tape (90 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

2. Inductance measured between secondary pins at 1 kHz, 0.1 Vrms.
3. For specific questions regarding frequency range, please contact us at cst@coilcraft.com.
4. Volt-time product is for the secondary, between pin 4 and 3.
5. DC current through the primary, with simultaneous secondary DC current determined by the turns ratio, causes a 40°C rise at 25°C ambient. Higher current causes a greater temperature rise. See Temperature Rise vs Current curve.
- This information is for reference only and does not represent absolute maximum ratings.
6. Terminating resistance (R_T) value is based on 1 Volt output with 100 Amps flowing through the primary. Varying terminating resistance increases or decreases output Voltage/Ampere according to the following equation: $R_T \text{ (Ohms)} = V_{out} \times N_{sec} / I_{in}$.
7. Electrical specifications at 25°C.

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

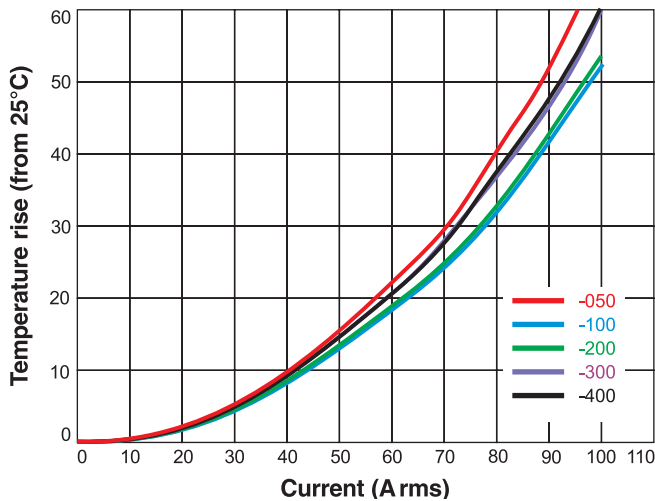
Typical Circuits



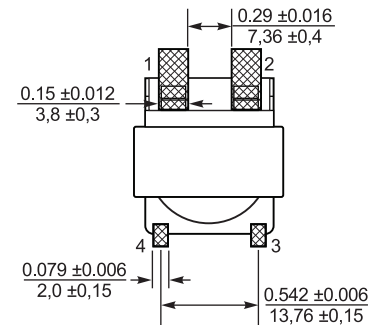
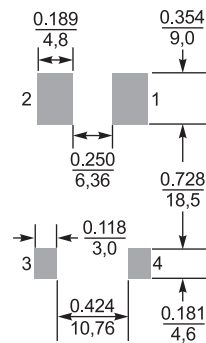
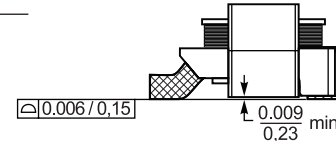
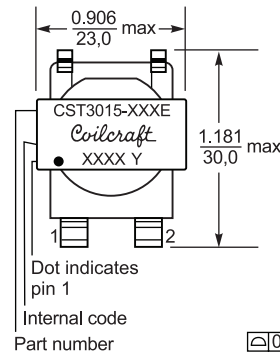


CST3015 Series Current Sense Transformers

Temperature Rise vs Current



Dimensions



Recommended Land Pattern

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

Packaging 90/13" reel; Plastic tape: 56 mm wide, 0.5 mm thick, 36 mm pocket spacing, 16 mm pocket depth