

Current Sense Transformers CST4835



- AEC-Q200 Grade 1 qualified (–40°C to +125°C ambient)
- Miniature SMT design, only 4.5 × 4.8 mm footprint
- 500 Vrms, one minute isolation (hipot) between windings
- Designed for use up to 1 MHz to sense continuous currents to 7 Amps

Core material Ferrite

Environmental RoHS compliant, halogen free

Terminations RoHS compliant silver over nickel over phos bronze.

Weight 115 – 122 mg

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)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

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

Packaging 500/7" reel; 2200/13" reel; Plastic tape: 12 mm wide, 0.35 mm thick, 8 mm pocket spacing, 3.6 mm pocket depth

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

Part number ¹	Turns (N) pri:sec	Inductance ² min (µH)	DCR max (Ohms)		Frequency range (kHz)	Volt-time product ³ (Vµsec)	Sensed current I _{in} ⁴ max (A)	Terminating resistance R _T ⁵ (Ohms)
			pri	sec				
CST4835-020E_	1:20	33	0.003	0.35	83 – 1000	6.0	7	2.9
CST4835-030E_	1:30	74	0.003	0.90	56 – 1000	9.0	7	4.3
CST4835-040E_	1:40	132	0.003	1.60	42 – 1000	12.0	7	5.7
CST4835-050E_	1:50	205	0.003	2.50	33 – 1000	15.0	7	7.1
CST4835-060E_	1:60	295	0.003	3.60	28 – 1000	18.0	7	8.6
CST4835-070E_	1:70	400	0.003	4.60	24 – 1000	21.0	7	10.0
CST4835-100E_	1:100	820	0.003	9.50	17 – 1000	30.0	7	14.3
CST4835-125E_	1:125	1280	0.003	13.0	13 – 1000	37.5	7	17.9
CST4835-150E_	1:150	1800	0.003	21.0	11 – 1000	45.0	7	21.4

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

CST4835-150EC

Packaging: C = 7" machine-ready reel. EIA-481 embossed plastic tape (500 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.

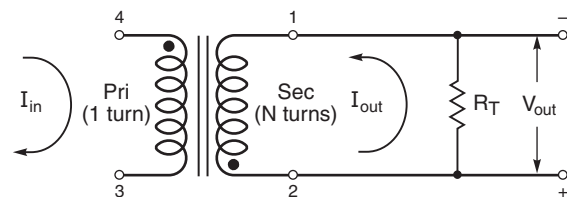
D = 13" machine-ready reel. EIA-481 embossed plastic tape (2200 parts per full reel).

- Inductance measured between secondary pins at 100 kHz, 0.1 Vrms, 0 Adc.
- Maximum volt-time product is for the secondary, based on 2000 Gauss.
- Primary current of 7 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_T) value is based on 1 Volt output with 7 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.

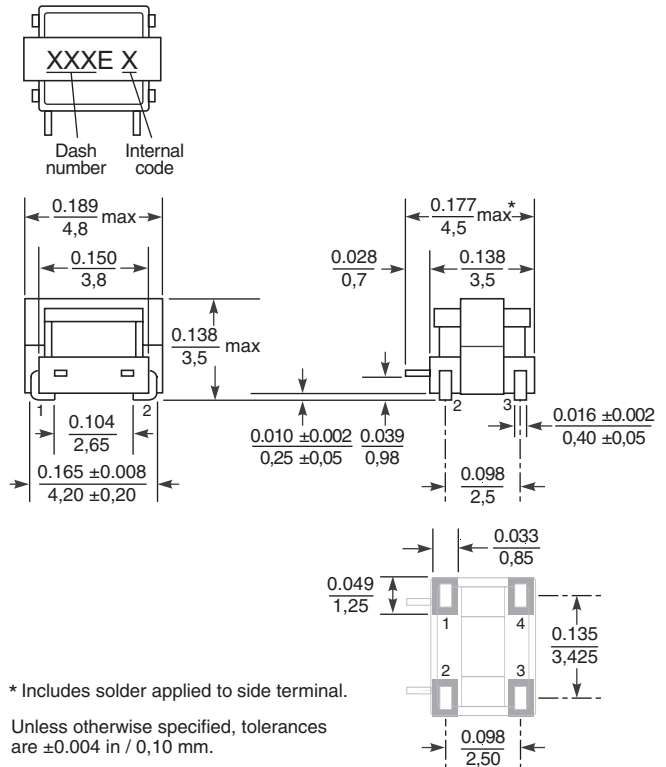
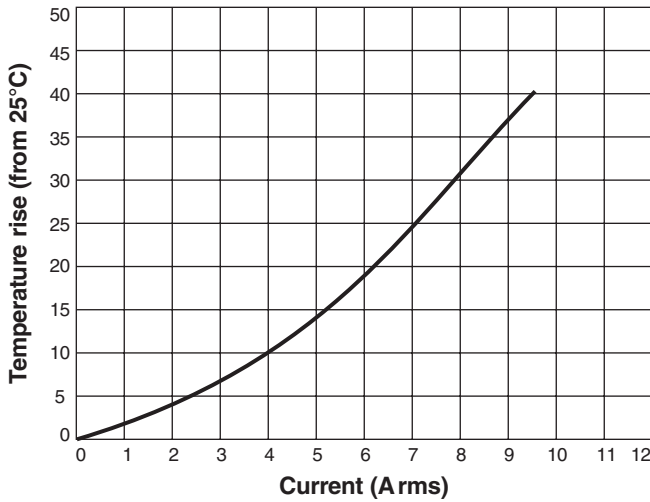
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.





CST4835 Series SMT Current Sense Transformers

Temperature Rise vs Current



* Includes solder applied to side terminal.

Unless otherwise specified, tolerances are ±0.004 in / 0,10 mm.

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

Recommended Land Pattern

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Coilcraft:

[CST4835-030EC](#) [CST4835-125EC](#) [CST4835-020EB](#) [CST4835-150EC](#) [CST4835-060EC](#) [CST4835-050EB](#)
[CST4835-100EB](#) [CST4835-070EB](#) [CST4835-150EB](#) [CST4835-050EC](#) [CST4835-020EC](#) [CST4835-040EB](#)
[CST4835-060EB](#) [CST4835-070EC](#) [CST4835-030EB](#) [CST4835-125EB](#) [CST4835-040EC](#) [CST4835-100EC](#)