

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.

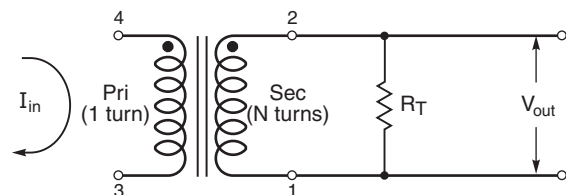
D = 13" machine-ready reel. EIA-481 embossed plastic tape (2200 parts per full reel).

- 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.



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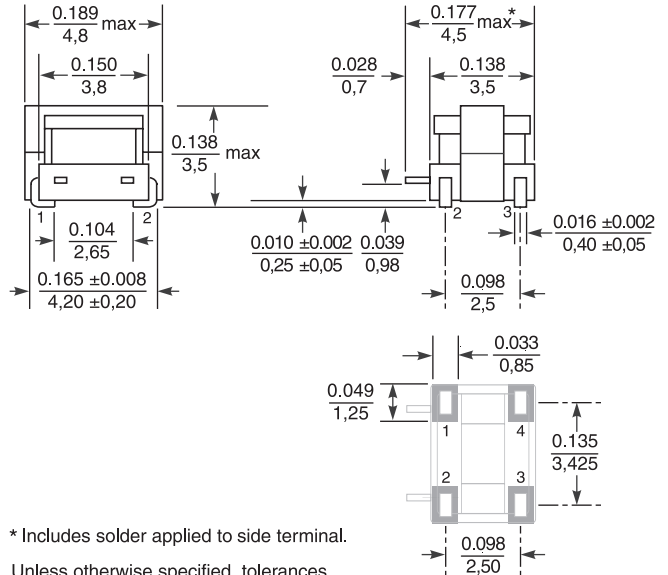
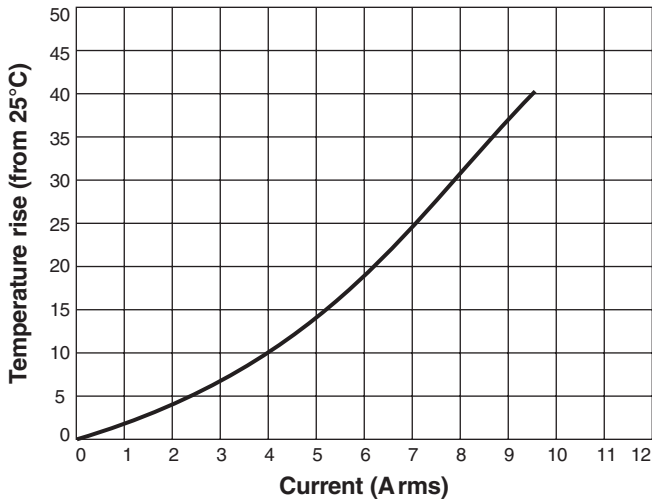
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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.



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.

Recommended Land Pattern

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