

NEW!

Current Sensing Transformers CST4835



- AEC-Q200 Grade 1 qualified (-40°C to $+125^{\circ}\text{C}$ ambient)
- Miniature SMT design, only 4.5×4.8 mm footprint
- 500 Vac, one minute isolation between windings
- Designed for use from 50 kHz 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. Other terminations available at additional cost.

Weight 115 – 122 mg

Ambient temperature -40°C to $+85^{\circ}\text{C}$

Storage temperature Component: -40°C to $+85^{\circ}\text{C}$.

Tape and reel Packaging: -40°C to $+80^{\circ}\text{C}$

Resistance to soldering heat Max three 40 second reflows at $+260^{\circ}\text{C}$, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at $<30^{\circ}\text{C}$ / 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 with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

Part number ¹	Turns pri:sec (N)	Inductance ² min (μH)	Primary DCR (Ohms)		Secondary DCR max (Ohms)	Sensed current ³ I_{in} (A)
			typ	max		
CST4835-020E_	1:20	33	0.002	0.003	0.35	7
CST4835-030E_	1:30	74	0.002	0.003	0.90	7
CST4835-040E_	1:40	132	0.002	0.003	1.60	7
CST4835-050E_	1:50	205	0.002	0.003	2.50	7
CST4835-060E_	1:60	295	0.002	0.003	3.60	7
CST4835-070E_	1:70	400	0.002	0.003	4.60	7
CST4835-100E_	1:100	820	0.002	0.003	9.50	7
CST4835-125E_	1:125	1280	0.002	0.003	13.0	7
CST4835-150E_	1:150	1800	0.002	0.003	21.0	7

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

CST4835-150EC

Termination: **E** = RoHS compliant silver over nickel over phos bronze

Special order:

T = RoHS tin-silver-copper (95.5/4/0.5) or

S = non-RoHS tin-lead (63/37).

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.

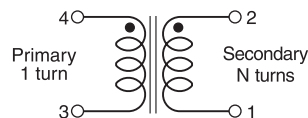
D = 13" machine-ready reel. EIA-481 embossed plastic tape (2200 parts per full reel).

2. Inductance measured between secondary pins at 100 kHz, 0.1 Vrms, 0 Adc.

3. Primary current of 7 A causes approximately 25°C temperature rise from 25°C ambient. Higher current causes a greater temperature rise (see Temperature Rise vs Current curve).

4. Electrical specifications at 25°C .

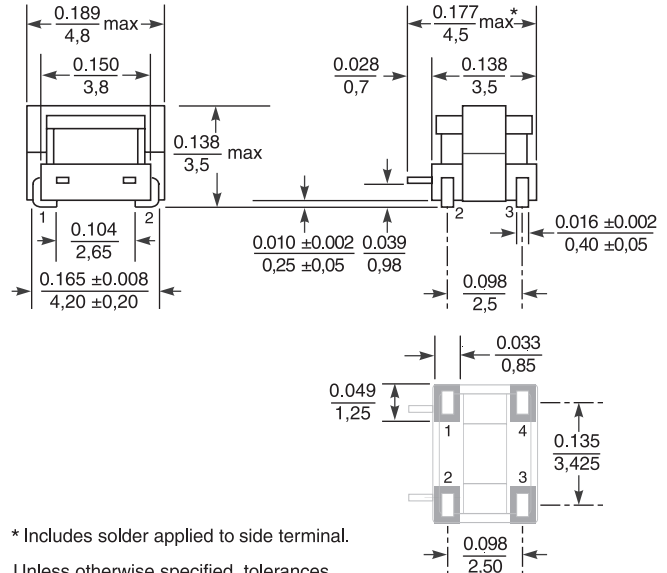
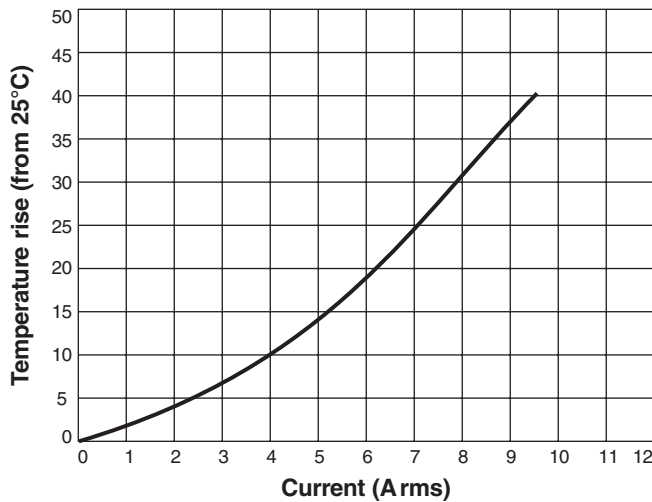
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



NEW!

CST4835 Series SMT Current Sensing 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



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Document 915-2 Revised 10/03/14

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Coilcraft:

<u>CST4835-030EC</u>	<u>CST4835-125EC</u>	<u>CST4835-020EB</u>	<u>CST4835-150EC</u>	<u>CST4835-060EC</u>	<u>CST4835-050EB</u>
<u>CST4835-100EB</u>	<u>CST4835-070EB</u>	<u>CST4835-150EB</u>	<u>CST4835-050EC</u>	<u>CST4835-020EC</u>	<u>CST4835-040EB</u>
<u>CST4835-060EB</u>	<u>CST4835-070EC</u>	<u>CST4835-030EB</u>	<u>CST4835-125EB</u>	<u>CST4835-040EC</u>	<u>CST4835-100EC</u>