

**NEW!**

# Current Sensing Transformers CST4835



- AEC-Q200 Grade 1 qualified ( $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  ambient)
- Miniature SMT design, only  $4.5 \times 4.8$  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**  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

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

Tape and reel Packaging:  $-40^{\circ}\text{C}$  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 <sup>1</sup>	Turns pri : sec (N)	Inductance <sup>2</sup> min ( $\mu\text{H}$ )	Primary DCR (Ohms)		Secondary DCR max (Ohms)	Sensed current <sup>3</sup> $I_{in}$ (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).

- Inductance measured between secondary pins at 100 kHz, 0.1 Vrms, 0 Adc.
- Primary current of 7 A causes approximately  $25^{\circ}\text{C}$  temperature rise from  $25^{\circ}\text{C}$  ambient. Higher current causes a greater temperature rise (see Temperature Rise vs Current curve).
- Electrical specifications at  $25^{\circ}\text{C}$ . Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



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# 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.

### Recommended Land Pattern

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

