### 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](#).

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### Specifications

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Turns (N) pri: sec</th>
<th>Inductance2 min (µH) pri: sec</th>
<th>DCR max (Ohms)</th>
<th>Frequency range (kHz)</th>
<th>Volt-time product3 (V·µsec)</th>
<th>Sensed current Is max (A)</th>
<th>Terminating resistance RT2 (Ohms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CST4835-020E_</td>
<td>1:20</td>
<td>33</td>
<td>0.003 0.35</td>
<td>83 – 1000</td>
<td>6.0</td>
<td>7</td>
<td>2.9</td>
</tr>
<tr>
<td>CST4835-030E_</td>
<td>1:30</td>
<td>74</td>
<td>0.003 0.90</td>
<td>56 – 1000</td>
<td>9.0</td>
<td>7</td>
<td>4.3</td>
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<tr>
<td>CST4835-040E_</td>
<td>1:40</td>
<td>132</td>
<td>0.003 1.60</td>
<td>42 – 1000</td>
<td>12.0</td>
<td>7</td>
<td>5.7</td>
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<tr>
<td>CST4835-050E_</td>
<td>1:50</td>
<td>205</td>
<td>0.003 2.50</td>
<td>33 – 1000</td>
<td>15.0</td>
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<td>7.1</td>
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<tr>
<td>CST4835-060E_</td>
<td>1:60</td>
<td>295</td>
<td>0.003 3.60</td>
<td>28 – 1000</td>
<td>18.0</td>
<td>7</td>
<td>8.6</td>
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<tr>
<td>CST4835-070E_</td>
<td>1:70</td>
<td>400</td>
<td>0.003 4.60</td>
<td>24 – 1000</td>
<td>21.0</td>
<td>7</td>
<td>10.0</td>
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<td>820</td>
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<td>30.0</td>
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<td>14.3</td>
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<td>CST4835-125E_</td>
<td>1:125</td>
<td>1280</td>
<td>0.003 13.0</td>
<td>13 – 1000</td>
<td>37.5</td>
<td>7</td>
<td>17.9</td>
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<tr>
<td>CST4835-150E_</td>
<td>1:150</td>
<td>1800</td>
<td>0.003 21.0</td>
<td>11 – 1000</td>
<td>45.0</td>
<td>7</td>
<td>21.4</td>
</tr>
</tbody>
</table>

1. When ordering, please specify **packaging** code:
   - **CST4835-150E**
   - **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.


4. 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).

5. Terminating resistance (RT) 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:

   \[ RT = V_{out} \times N_{sec}/I_{in} \]

6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

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Specification subject to change without notice.

Please check web site for latest information.
CST4835 Series SMT Current Sense Transformers

Temperature Rise vs Current

Dimensions are in inches

Recommended Land Pattern

* Includes solder applied to side terminal.

Unless otherwise specified, tolerances are ±0.004 in / 0.10 mm.