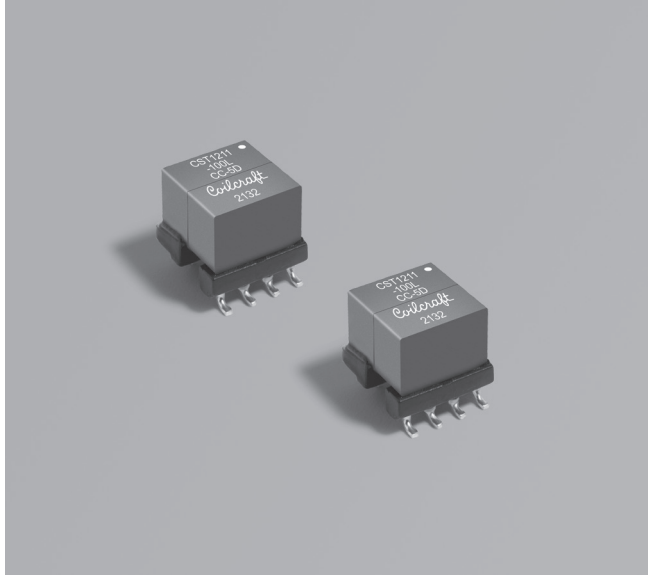


# Current Sense Transformers CST1211



- Designed for use up to 1 MHz and above
- AEC-Q200 Grade 1 (–40°C to +125°C)
- Insulation distances in compliance with IEC 60664 (basic insulation, working voltage  $V_{rms} = 800\text{ V}$ )
- UL Class 180 (H) insulating materials, UL 1446 Class F<sup>8</sup>
- Bobbin plastic UL 94-V0, CTI PLC3
- Pri/Sec: 9 mm creepage and 8 mm clearance<sup>9</sup>

**Core material** Ferrite

**Environmental** RoHS compliant

**Terminations** Tin-silver-copper over tin over nickel over copper

**Weight** 2.6 g

**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)

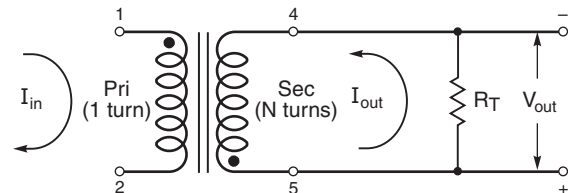
**Packaging** 350/13" reel; Plastic tape: 24 mm wide, 0.5 mm thick, 16 mm pocket spacing, 11.6 mm pocket depth

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

Part number <sup>1</sup>	Turns (N) pri:sec	L <sup>2</sup> min (mH)	DCR max (Ohms)		Frequency range <sup>3</sup> (kHz)	Isolation <sup>4</sup> (Vrms)	Volt-time product <sup>5</sup> (Vμsec)	Sensed current I <sub>in</sub> <sup>6</sup> (A)	Terminating resistance R <sub>T</sub> <sup>7</sup> (Ohms)
			pri	sec					
CST1211-050LD	1:50	1.7	0.00153	0.65	33 –>1000	3000	106.0	28	1.8
CST1211-070LD	1:70	3.0	0.00153	1.38	24 –>1000	3000	148.4	28	2.5
CST1211-100LD	1:100	7.0	0.00153	2.79	17 –>1000	3000	212.0	28	3.6
CST1211-125LD	1:125	11.0	0.00153	4.85	13 –>1000	3000	265.0	28	4.5
CST1211-200LD	1:200	32.0	0.00153	10.42	11 –>1000	3000	424.0	28	7.1

- Packaging:** D = 13" machine-ready reel. EIA-481 embossed plastic tape (350 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).
- Inductance measured between secondary pins at 100 kHz, 0.1 Vrms, 0 Adc.
- For specific questions regarding frequency range, please contact us at [cst@coilcraft.com](mailto:cst@coilcraft.com).
- 3000 Vrms, one minute isolation (hipot) between windings.
- Volt-time product is for the secondary, between pin 4 and 5.
- Primary current of 28 A causes less than 40°C temperature rise from 25°C ambient. Higher current causes a greater temperature rise (see Temperature Rise vs Current curve).
- Terminating resistance (R<sub>T</sub>) value is based on 1 Volt output with 28 Amps flowing through the primary. Varying terminating resistance increases or decreases output Voltage/Ampere according to the following equation:  
 $R_T = V_{out} \times N_{sec} / I_{in}$ .
- UL 1446 Class F (155°C) Insulation System (UL File E83628 CC-5D marking).
- Creepage distance: Pri/Sec: 9 mm; Pri/Core: 5 mm  
Clearance distance: Pri/Sec: 8 mm; Pri/Core: 4 mm.
- Electrical specifications at 25°C.

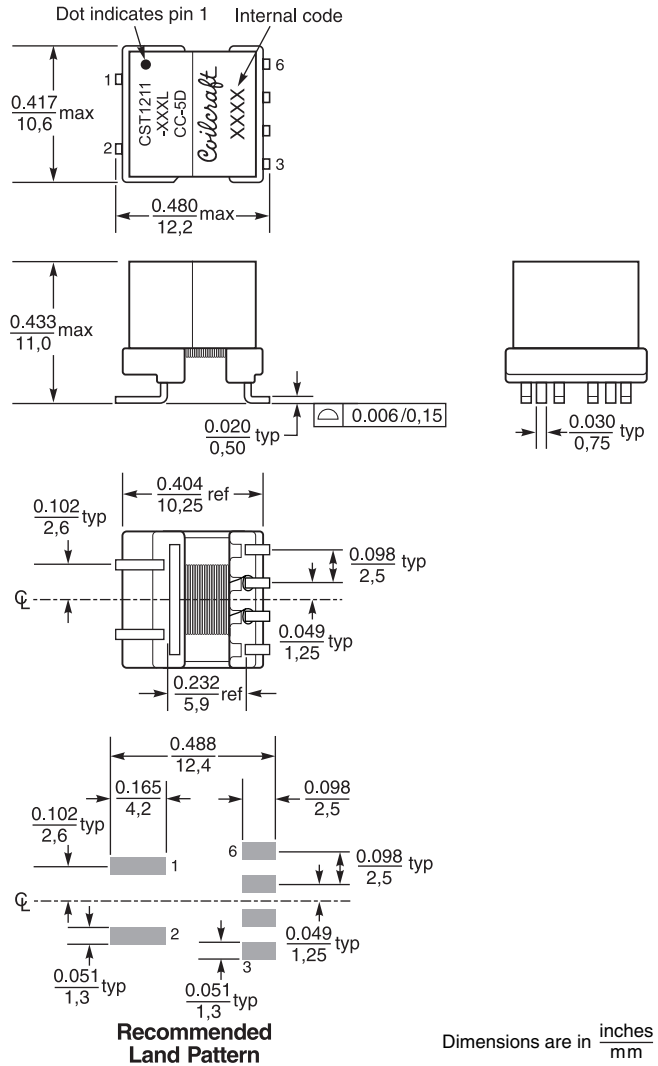
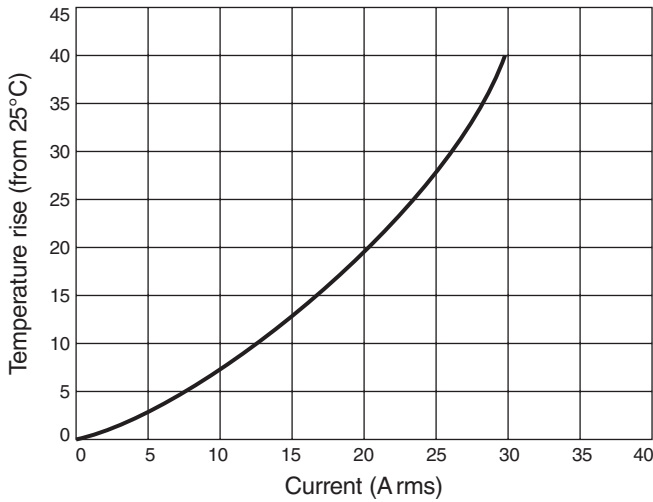
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.





# CST1211 Series SMT Current Sense Transformers

## Temperature Rise vs Current



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