

NEW!

Current Sense Transformers CSX7045



- Very low primary DC resistance
- Designed for use up to 800 kHz
- 1800 Vrms, one minute isolation (hipot) between primary and secondary
- Qualified based on AEC-Q200 Rev E
 - Solderability: Tested per J-STD-002, Method S1 and Method D

Core material Ferrite**Environment** RoHS compliant, halogen free**Terminations** RoHS compliant tin over nickel over silver glass frit (primary). RoHS compliant tin over nickel over copper (secondary).**Weight** 500 – 550 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)**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	L ² min (mH)	DCR max ³		Frequency range (kHz)	Isolation ⁴ (Vrms)	Volt-time product ⁵ (Vμsec)	Sensed current I _{in} ⁶ (A)	Terminating resistance R _T ⁷ (Ohms)
			pri	sec					
CSX7045-050RC	1:50	0.38	0.50	1.4	30 – >800	1800	51.75	20	2.5
CSX7045-100RC	1:100	1.54	0.50	3.8	14 – >800	1800	103.5	20	5.0
CSX7045-150RC	1:150	3.65	0.50	9.0	10 – >800	1800	155.3	20	7.5
CSX7045-175RC	1:175	5.32	0.50	12.0	8 – >800	1800	181.1	20	8.75
CSX7045-200RC	1:200	6.93	0.50	17.3	6 – >800	1800	207.0	20	10.0
CSX7045-250RC	1:250	11.06	0.50	22.0	4 – >800	1800	258.7	20	12.5

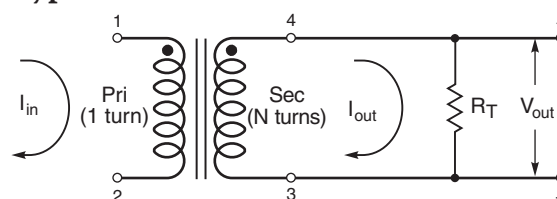
1. When ordering, please specify **packaging** code:**CSX7045-250RC****Packaging:** **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (350 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).**D** = 13" machine-ready reel. EIA-481 embossed plastic tape (1500 parts per full reel). Factory order only, not stocked.

- Inductance is measured at 100 kHz, 0.1 Vrms, 0 ADC on an Agilent 4263B (or equivalent) with a Coilcraft CCF1546 test fixture.
- DCR is measured on a Keithley 580 Micro-ohmmeter (or equivalent).
- 1800 Vrms, one minute isolation (hipot) between primary and secondary.
- Volt-time product is for the secondary, between pins 3 and 4.
- Primary current that causes a 40°C rise from 125°C.
- Terminating resistance (R_T) value is based on 1 Volt output with 20 Amps flowing through the primary. Varying terminating resistance increases or decreases output Voltage/Ampere according to the following equation:

$$R_T = V_{out} \times N_{sec} / I_{in}$$
- Electrical specifications at 25°C.

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

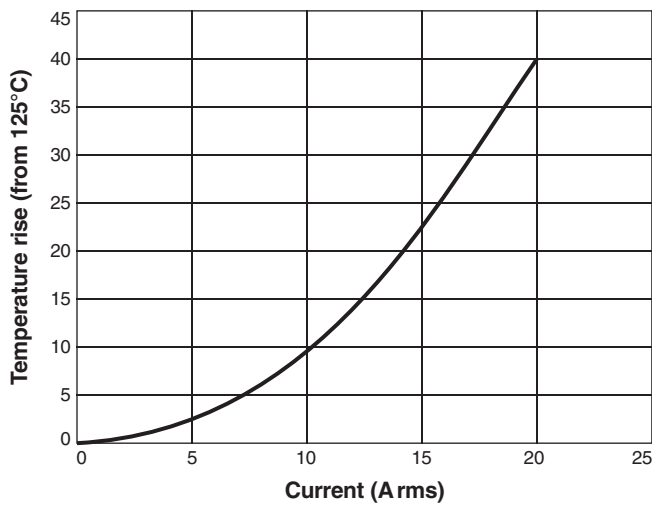
Typical Circuit



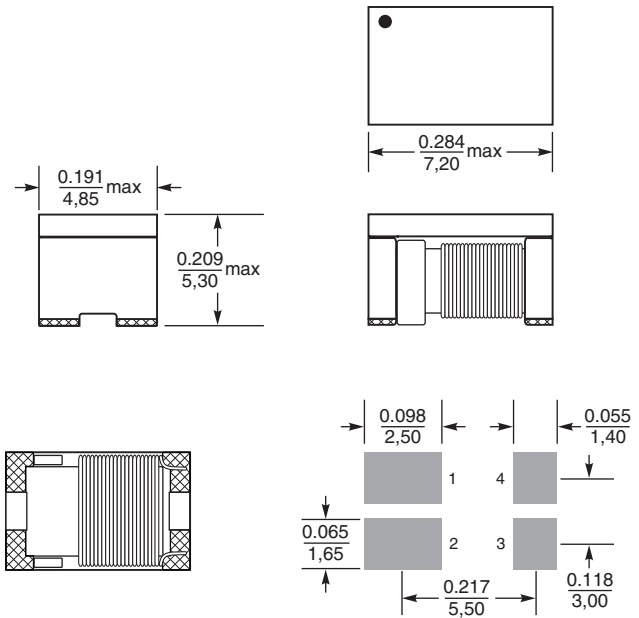


CSX7045 SMT Current Sense Transformers

Temperature Rise vs Current



Dimensions



Recommended Land Pattern

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

Packaging 350/7" reel 1500/13" reel Plastic tape: 16 mm wide, 0.4 mm thick, 8 mm pocket spacing, 5.5 mm pocket depth