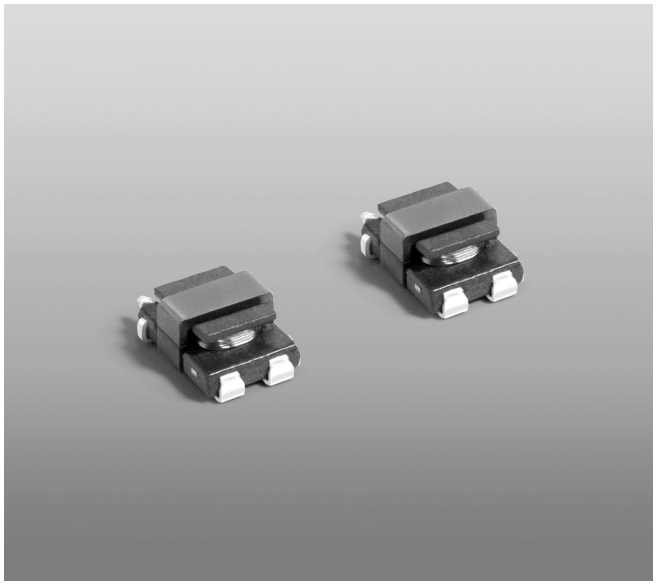
Current Sense Transformer CU8965-AL



- Developed for Analog Devices ADP1051 Eighth Brick Power Module
- Sensed current up to 20 A; Frequency range: 16 kHz – 1 MHz
- Very low primary DC resistance
- 1500 Vdc, one second isolation between windings.

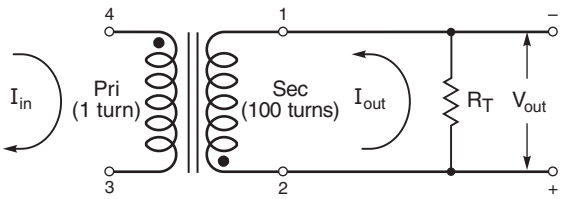
Core material Ferrite
Terminations RoHS compliant tin-silver over tin over nickel over phos bronze
Weight 0.16 g
Ambient temperature –40°C to +125°C
Maximum part temperature +165°C (ambient + temp rise)
Storage temperature Component: –40°C to +125°C.
Tape and reel packaging: –40°C to +80°C
Resistance 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 600/7″ reel; 2500/13″ reel Plastic tape: 16 mm wide, 0.35 mm thick, 8 mm pocket spacing, 3.0 mm pocket depth
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	Inductance[2] min (mH)	DCR max (Ohms) pri	DCR max (Ohms) sec	Frequency range (kHz)	Volt-time product[3] (Vµsec)	Sensed current I_{in}[4] max (A)	Terminating resistance R_T[5] (Ohms)
CU8965-AL_	1:100	1.33	0.0015	10.68	16 – 1000	32	20	5.0

1. When ordering, please specify **packaging** code:
   CU8965-ALC
   Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (600 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. Factory order only, not stocked (2500 parts per full reel).
2. Inductance measured between secondary pins at 100 kHz, 0.1 Vrms, 0 Adc.
3. Maximum volt-time product is for the secondary, based on 2000 Gauss.
4. Primary current of 20 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 (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: $R_T = V_{out} \times N_{sec}/I_{in}$.
6 Electrical specifications at 25°C.

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

Typical Circuit



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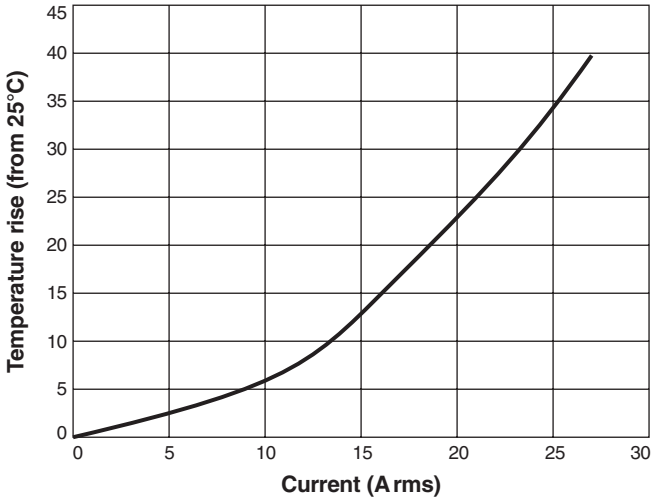
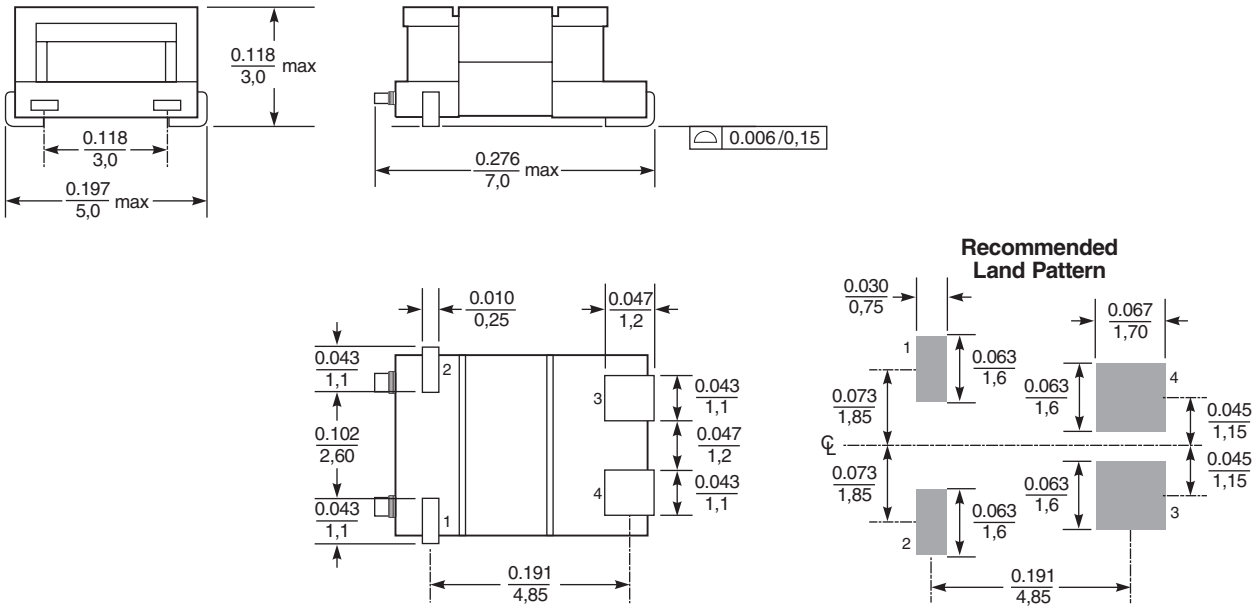
CU8965-AL Current Sense Transformer

Temperature Rise vs Current



Dimensions



Dimensions are in inches / mm

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