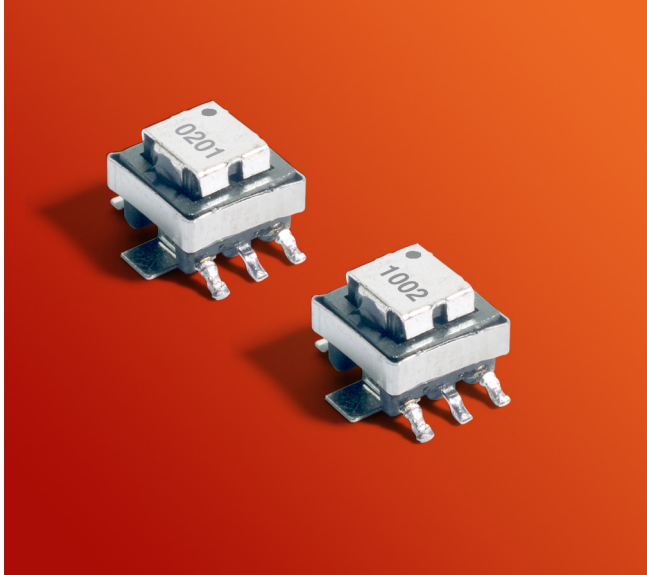


Outgassing Compliant Current Sensors CP-N0530



- For use from 50 kHz to nearly 1 MHz
- Two different pinouts to meet the requirements of different applications.
- Low primary DC resistance
- 500 Vac isolation from secondary to the core

Core material Ferrite

Terminations Tin-lead (63/37) over tin over nickel over phos bronze (pins 1 – 6); tin-lead over gold over nickel over copper (pins 7 – 8). Other terminations also available at additional cost

Weight 0.4 g

Ambient temperature –55°C to +125°C

Storage temperature Component: –55°C to +125°C.
Tape and reel packaging: –55°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 250/7" reel Plastic tape: 16 mm wide, 0.35 mm thick, 12 mm pocket spacing, 5.6 mm pocket depth

Part number (CP-N0530-) ¹		Turns (N) pri:sec	Inductance ² min (μH)	DCR (Ohms)		Sensed current ³ I _{in} (A)	Terminating resistance R _T ⁴ (Ohms)	Volt-time product ⁵ (V-μsec)
				pri ref	sec max			
0201SZ	0202SZ	1:20	81	0.0007	0.400	10	2.0	16
0301SZ	0302SZ	1:30	180	0.0007	0.870	10	3.0	24
0401SZ	0402SZ	1:40	320	0.0007	1.14	10	4.0	32
0501SZ	0502SZ	1:50	500	0.0007	1.50	10	5.0	41
0601SZ	0602SZ	1:60	730	0.0007	1.98	10	6.0	49
0701SZ	0702SZ	1:70	980	0.0007	4.75	10	7.0	57
1001SZ	1002SZ	1:100	2000	0.0007	5.50	10	10.0	81
1251SZ	1252SZ	1:125	3000	0.0007	6.50	10	12.5	101

1. When ordering, specify **termination** code and complete part number:

↓
CP-N0530-0202SZ

Termination S = Tin-lead (63/37)

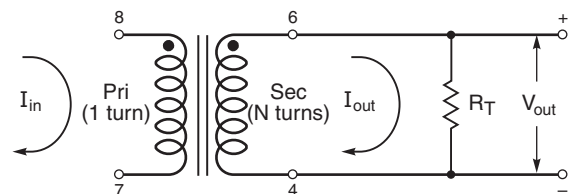
T = Tin-silver-copper (95.5/4/0.5)

- Inductance measured between secondary pins at 100 kHz, 0.1 Vrms.
- Primary current of 10 A causes approximately 25°C temperature rise from 25°C ambient. Higher current causes a greater temperature rise (see Temperature Rise vs Current curve).
- Terminating resistance (R_T) value is based on 1 Volt output with 10 Amps flowing through the primary. Varying terminating resistance increases or decreases output Voltage/Ampere according to the following equation: R_T (Ohms) = V_{out} × N_{sec}/I_{in}.
- Maximum volt-time product for the secondary.
- Electrical specifications at 25°C.

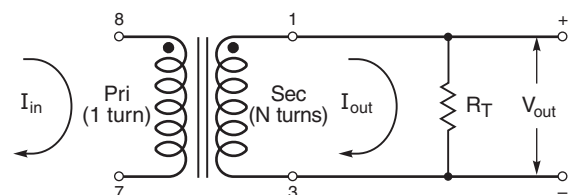
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Typical Circuits

CP-N0530-xxx1

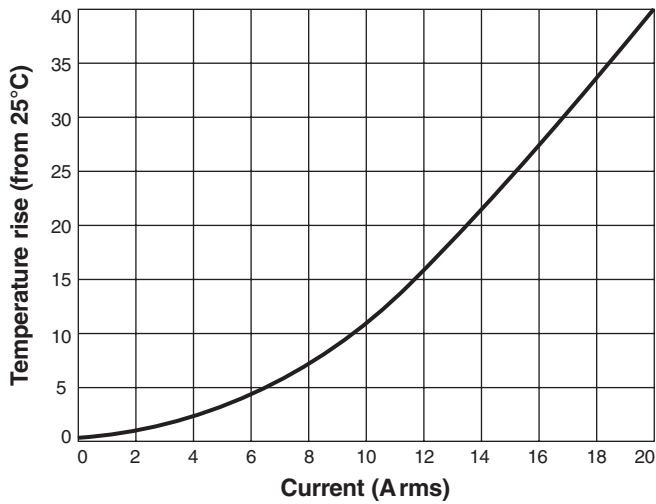


CP-N0530-xxx2

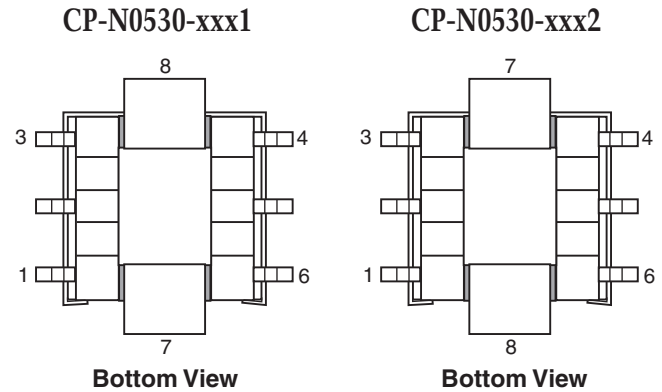


CP-N0530 Outgassing Compliant Current Sensors

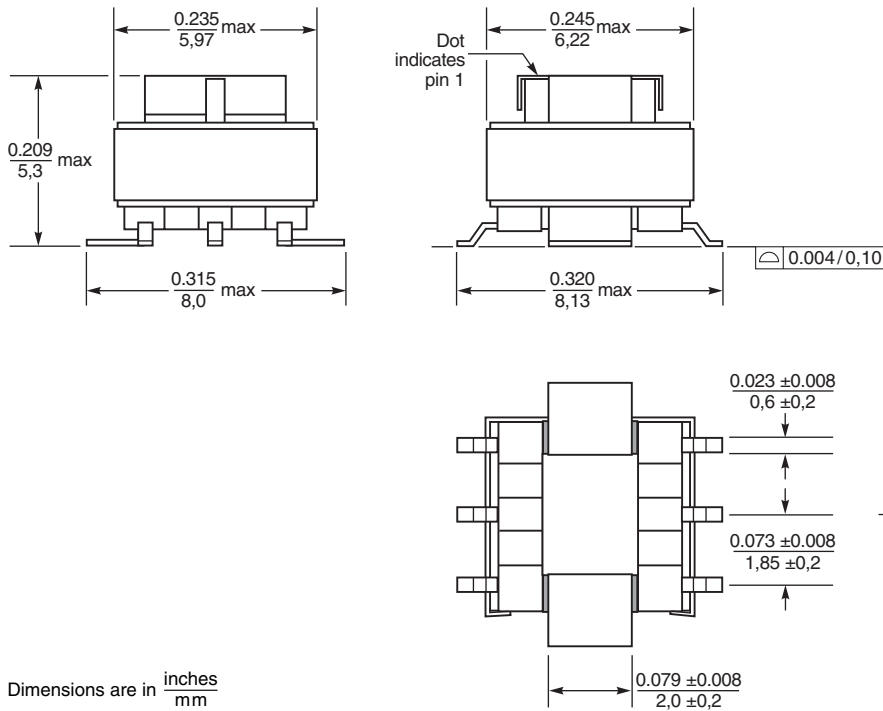
Temperature Rise vs Current



Pinouts



Dimensions



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

Suggested Land Pattern

