SMT Current Sense Transformers

PL1170







Maximum Reflow Temperature: 235°C

Storage Temperature: -55°C to +135°C

Moisture Sensitivity Level (MSL): 3

Height: 7.1mm Max

Footprint: 14.6mm x 12.6mm Max

Current Rating: up to 15 A

• Can be made available in a RoHS configuration

by a special request (Sn100 lead finish)

Frequency Range: 50kHz to 500kHz

Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C									
				DCR (m Ω MAX)					
Part Number	Turns Ratio	Current Rating (A)	Secondary Inductance (mH MIN)	Primary (1, 3-2, 4)	Secondary (5-6)	Hipot (Vrms)			
PL1170	1:1:100	15	14.8	1.5	930	500			

Notes:

- The temperature of the component (ambient temperature plus the temperature rise) must be within the specified operating temperature range.
- 2. The maximum current rating is based upon temperature rise of the component and represents the dc current which will cause a typical temperature rise of 40°C with no air flow when both single turn windings connected in parallel.
- 3. To calculate the value of the terminating resistor (Rt), use the following formula:

Rt $\Omega = V_{REF} * N / (Ipeak primary)$

4. The peak flux density of the device must remain below 2000 Gauss. To calculate the peak flux density for a uni-polar current use the formula below:

Bpk = 14.29 * Vref * (Duty_Cycle_Max) * 10 5 (N * Freq_kHz) * for bi-polar current applications divide Bpk as calculated above by 2.

5. Optional Tape & Reel can be ordered by adding a "**T**" suffix to the part number (i.e. PL1170 becomes PL1170**T**).

USA 858 674 8100 Germany 49 7032 7806 0 Singapore 65 6287 8998 Shanghai 86 21 62787060 China 86 755 33966678 Taiwan 886 3 4356768

pulseelectronics.com M133.C (12/11)

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Mechanical Schematic PL1170 5 2 **-**○ 5 1 0-1T .490 ±.015 100T ± 2% DATE CODE COUNTRY OF ORIGIN 12,45 ±0,38 US PAT 5309130 **○** 6 6 .280 7,11 MAX .005/0,13 $\frac{.575}{14,61}$ MAX \longrightarrow .400 ± .015 6 SURFACES 10,15 ±0,38 $\frac{.495}{12,57}$ MAX \longrightarrow 3° 6 .490 ± .015 $12,45 \pm 0,38$ 5° 2 400 10,16 SUGGESTED PAD LAYOUT

For More Information

For More In	tormation				
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