SMT Current Sense Transformers





Surface Mount Package: Pick and Place Compatible

Moisture Sensitivity Level: 1

Storage Temperature: -55°C to +125°C

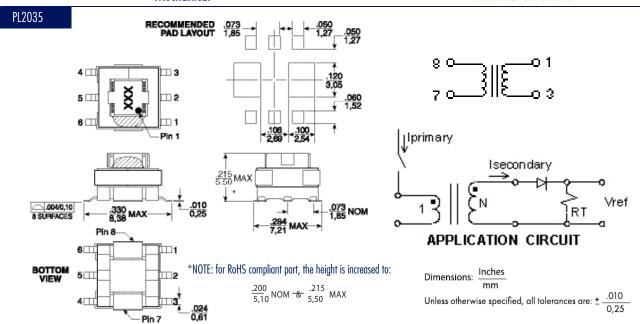
Reflow Peak Temperature: 235°C

Electrical Specifications @ 25°C – Operating Temperature – 55°C to +1&) °C												
Part ⁵	Turns	Current 2	Secondary	DCR (ms	Hipot							
Number	Ratio	Rating (A)	Inductance (mH MIN)	Primary (8-7)	Secondary (1-3)	(VRMS)						
PL2035	1:50	20	0.50	0.75	1500	500						

NOTES:

- The temperature of component (ambient temperature plus temper-ature rise) must be within the specified operating temperature range.
- 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 airflow when both one turn windings connected in parallel.
- 3. To calculate value of terminating resistor (Rt) use the following formula: Rt $(\Omega) = VREF * N / (Ipeak primary)$
- 4. The peak flux density of the device must remain below 2000 Gauss. To calculate the peak flux density for uni-polar current use following formula:
- $\begin{array}{l} \text{Bpk} = 37.59 \text{ * VREF * (Duty_Cycle_Max) * } 10^5 \text{/ (N * Freq_kHz)} \\ \text{* for bi-polar current applications divide Bpk (as calculated above) by } 2. \end{array}$
- 5. Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PL2035 becomes **PL2035T**).

Mechanical Electrical Schematic



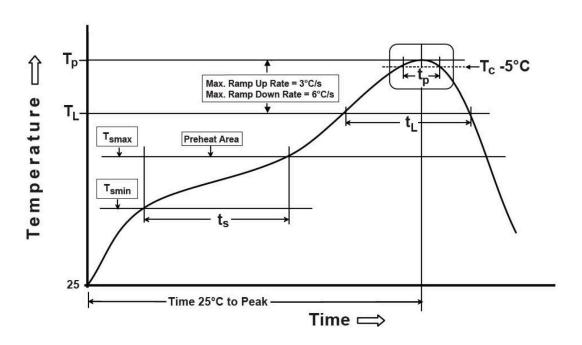


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Tin/Lead Recommended Reflow Profile (Based on J-STD-020D)



T _{SMIN} (°C)	T _{SMAX} (°C)		T _P (°C MAX)	t _S (s)	t _L (s)	t _P (s MAX)	Ramp-up rate (T _L to T _P)	Ramp-down rate (T _P to T _L)	Time 25°C to peak temperature (s MAX)
100	150	183	235	60-120	60-150	20	3°C/s MAX	6°C/s MAX	360

Notes:

- 1. All temperatures measured on the package leads.
- 2. Maximum times of reflow cycle: 2.

For More Information

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M145.D (07/20)

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