

SMT Current Sense Transformers

Ruggedized.



- R Surface Mount Package: Pick and Place Compatible
- R Moisture Sensitivity Level: 1
- R Storage Temperature: -55°C to +125°C
- R Reflow Peak Temperature: 235°C

Electrical Specifications @ 25°C — Operating Temperature -55°C to +125°C

Part ⁵ Number	Turns Ratio	Current ² Rating (A)	Secondary Inductance (mH MIN)	DCR (mΩMAX)		Hipot (V _{RMS})
				Primary (8-7)	Secondary (1-3)	
PL2035	1:50	20	0.50	0.75	1500	500

NOTES:

- The temperature of component (ambient temperature plus temperature 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.
- To calculate value of terminating resistor (RT) use the following formula:

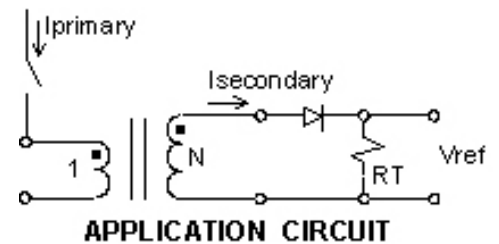
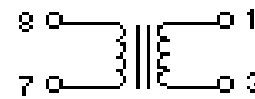
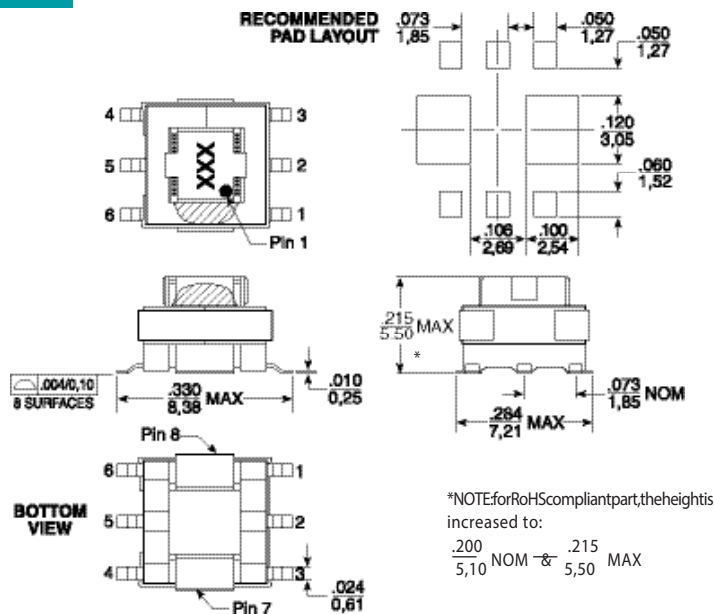
$$R_t (\Omega) = V_{REF} * N / (I_{peak_primary})$$
- The peak flux density of the device must remain below 2000 Gauss. To calculate the peak flux density for uni-polar current use following formula:

$$B_{pk} = 37.59 * V_{REF} * (Duty_Cycle_Max) * 10^5 / (N * Freq_kHz)$$
 * for bi-polar current applications divide Bpk (as calculated above) by 2.
- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PL2035 becomes PL2035T). PulseR complies to industry standard tape and reel specification EIA481.

Mechanical

Schematic

PL2035

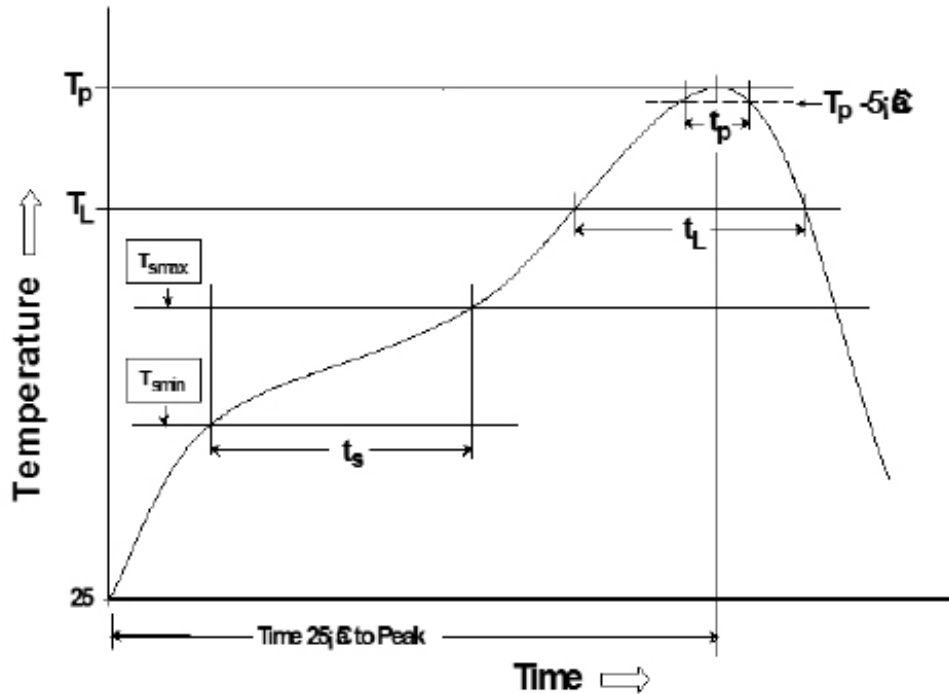


Weight.....0.34 grams
 Tray.....120/tray
 Tape & Reel.....900/reel
 Coplanarity.....0.004 inches

Dimensions: $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are $\pm \frac{.010}{0.25}$

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



T_{SMIN} (°C)	T_{SMAX} (°C)	T_L (°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	225	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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