

# SMT Current Sense Transformers

Ruggedized.



- 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 +125°C

Part <sup>5</sup> Number	Turns Ratio	Current <sup>2</sup> Rating (A)	Secondary Inductance (mH MIN)	DCR (mΩMAX)		Hipot (VRMS)
				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:  

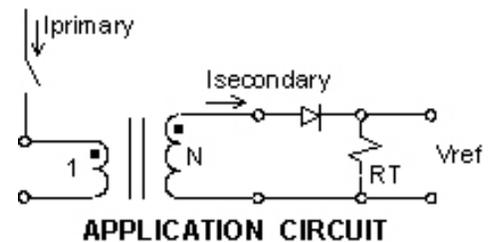
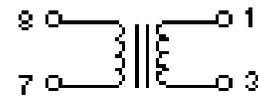
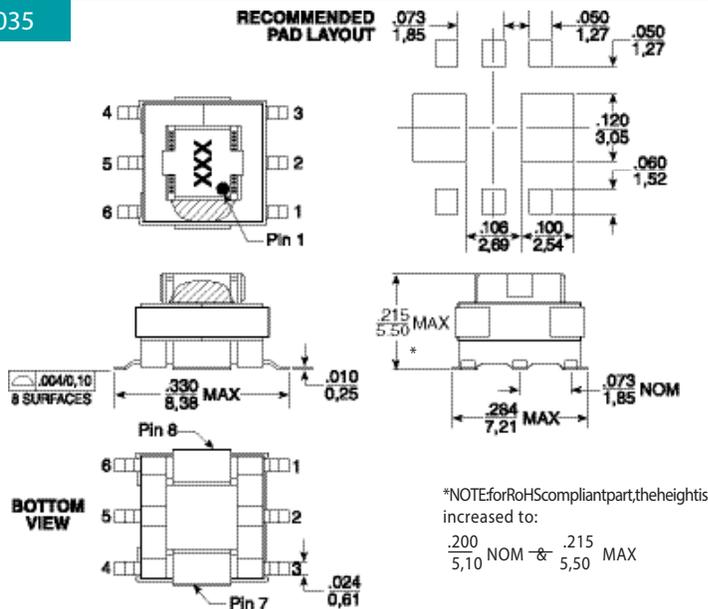
$$R_t (\Omega) = V_{REF} * N / (I_{peak\_primary})$$
- The peak flux density of the device must remain below 2000 Gauss. To calculate the peak flux density for uni-polar current use following formula:  

$$B_{pk} = 37.59 * V_{REF} * (Duty\_Cycle\_Max) * 10^5 / (N * Freq\_kHz)$$
 \* 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). Pulse complies to industry standard tape and reel specification EIA481.

## Mechanical

## Schematic

PL2035

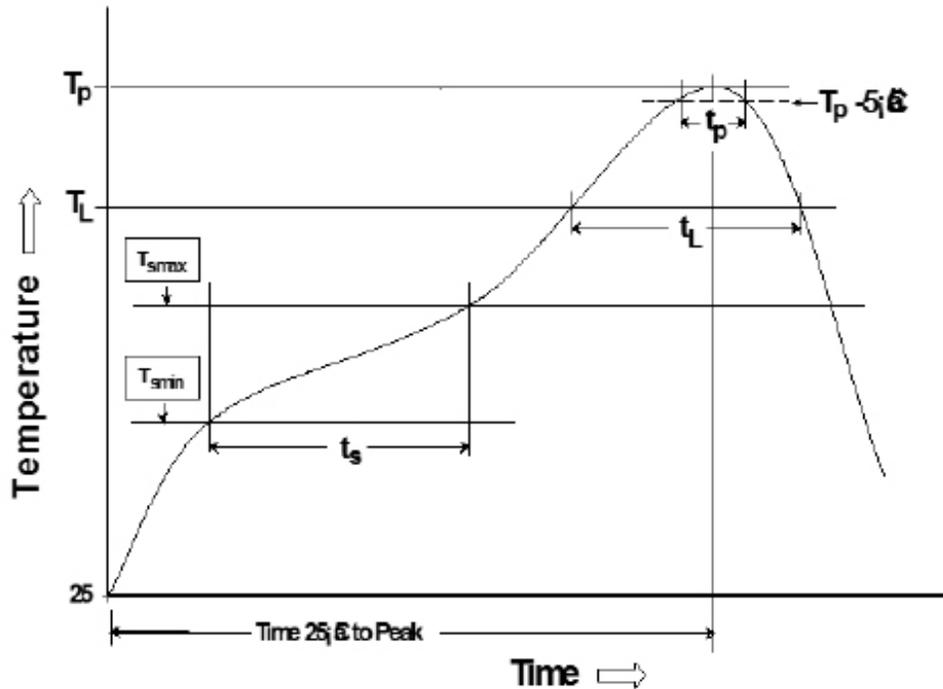


Weight.....0.34 grams  
 Tray.....120/tray  
 Tape & Reel.....900/reel  
 Coplanarity.....0.004 inches

Dimensions: Inches  
 mm

Unless otherwise specified, all tolerances are ± .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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