SMT Current Sense Transformers

Ruggedized

- Surface Mount Package: Pick and Place Compatible
- Moisture Sensitivity Level: 1
- Storage Temperature: -55^{0}C to +130^{0}C
- Reflow Peak Temperature: 235^{0}C

Electrical Specifications @ 25 °C — Operating Temperature - 55 °C to +130 °C

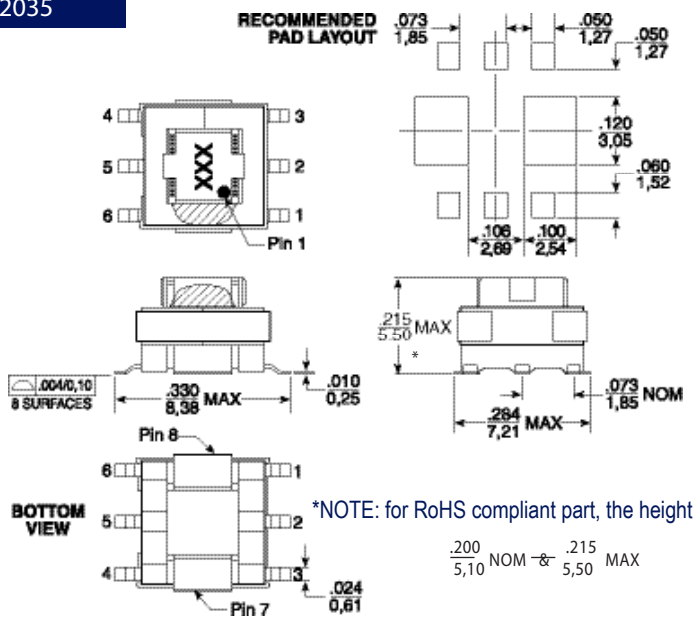
Part [5] Number	Turns Ratio	Current [2] Rating (A)	Secondary Inductance (mH MIN)	DCR (mΩ MAX)		Hipot (VRMS)
				Primary (8-7)	Secondary (1-3)	
PL2035	1:50	20	0.50	0.75	1500	500

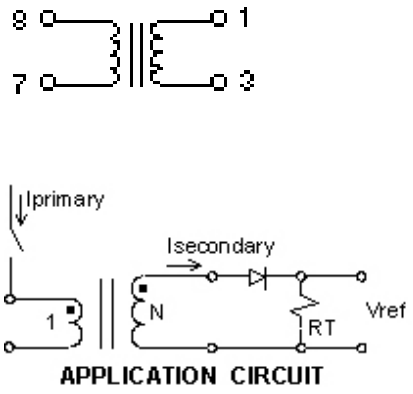
NOTES:

1. **The temperature of component (ambient temperature plus temper-ature 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 airflow when both one turn windings connected in parallel.**
3. **To calculate value of terminating resistor (Rt) use the following formula:**
   Rt (Ω) = 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:**
   Bpk = 37.59 * 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 packaging can be ordered by adding a "T" suffix to the part number (i.e. PL2035 becomes PL2035T).**

Mechanical | **Electrical Schematic**

PL2035



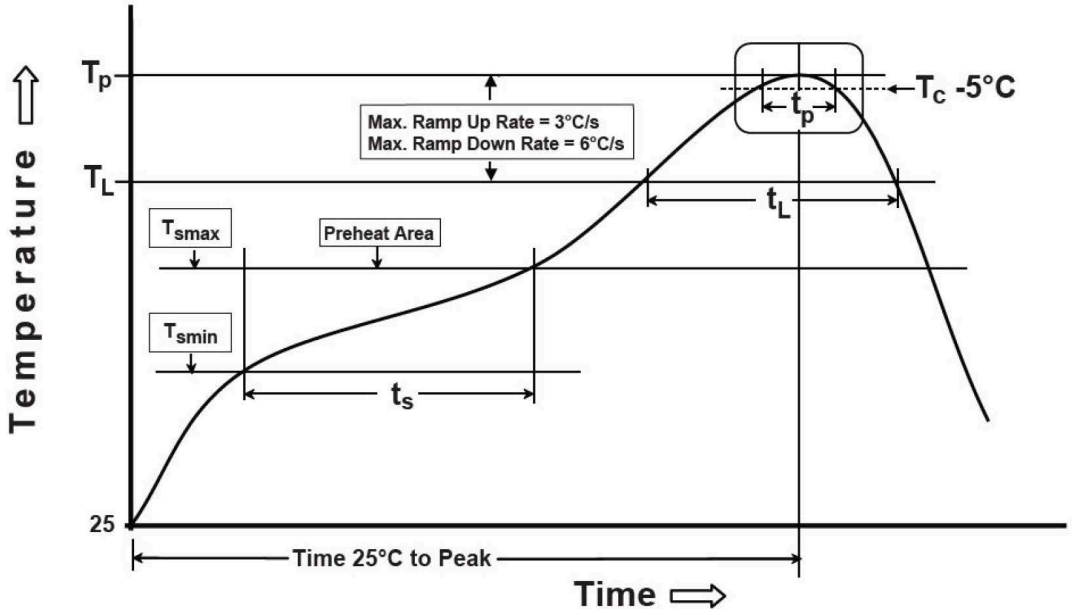


*NOTE: for RoHS compliant part, the height is increased to: .200 5,10 NOM & .215 5,50 MAX

Dimensions: Inches / mm

Unless otherwise specified, all tolerances are: ± .010 0,25

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	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

iNRCORE,LLC
311 Sinclair Road
Bristol,
PA 19007-6812 U.S.A
Tel: + 1.215.781.6400
Fax: +1.215.7816430

Global Sales Representatives and Locations: http://www.inrcore.com