SMT CURRENT SENSE TRANSFORMERS
PE-68XXXNL Series

RoHS COMPLIANT

- **Height:** 7.1mm Max
- **Footprint:** 14.6mm x 12.6mm Max
- **Current Rating:** up to 15A
- **Frequency Range:** 50kHz to 500kHz

Electrical Specifications @ 25°C — Operating Temperature -40°C to +130°C

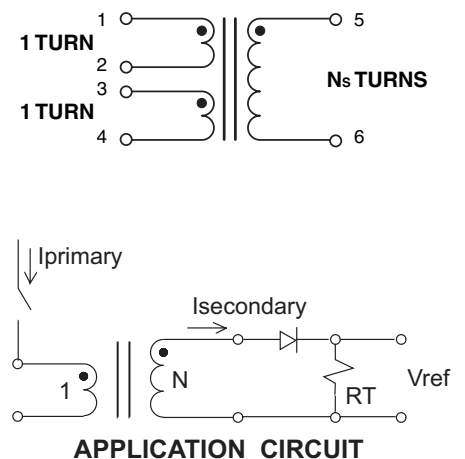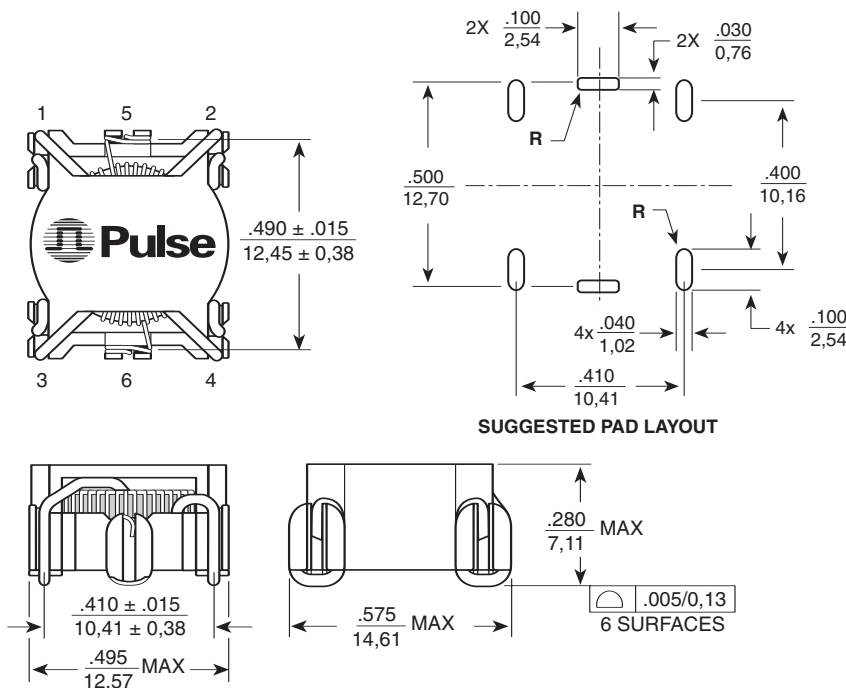| Part [5,6] Number	Turns Ratio	Current [2] Rating (A)	Secondary Inductance (mH MIN)	DCR (mΩ MAX) Primary (1,3-2,4)	DCR (mΩ MAX) Secondary (5-6)	Hipot (V_{RMS})
PE-68210NL	1:1:50	15	3.8	1.15	380	500
PE-68280NL	1:1:100	15	14.8	1.15	930	500
PE-68383NL	1:1:200	15	59.2	1.15	3900	500

NOTES:

1. The temperature of the component (ambient temperature plus 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 one turn windings connected in parallel.
3. To calculate the value of the terminating resistor (Rt) use the following formula: $Rt\ (\Omega) = V_{REF} * N / (I_{peak\_primary})$
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 following formula:

$$B_{PK} = 14.29 * V_{REF} * (Duty\_Cycle\_Max) * 10^5 / (N * Freq\_kHz)$$

* for bi-polar current applications divide B_{PK} as calculated above by 2.

5. Optional Tape & Reel packaging can be ordered by adding a "**T**" suffix to the part number (i.e. PE-68210NL becomes PE-68210NL**T**). Pulse complies to industry standard tape and reel specification EIA481.
6. The "**NL**" suffix indicates an RoHS-compliant part number. Non-NL suffixed parts are not necessarily RoHS compliant, but are electrically and mechanically equivalent to NL versions. If a part number does not have the "**NL**" suffix, but an RoHS compliant version is required, please contact Pulse for availability.

Mechanical

2X $\frac{.100}{2,54}$ 2X $\frac{.030}{0,76}$

R

$\frac{.500}{12,70}$ $\frac{.400}{10,16}$

R

4x $\frac{.040}{1,02}$ 4x $\frac{.100}{2,54}$

$\frac{.410}{10,41}$

SUGGESTED PAD LAYOUT

$\frac{.490 \pm .015}{12,45 \pm 0,38}$

$\frac{.410 \pm .015}{10,41 \pm 0,38}$

$\frac{.495}{12,57}$ MAX

$\frac{.575}{14,61}$ MAX

$\frac{.280}{7,11}$ MAX

$\frac{.005/0,13}$ 6 SURFACES

Schematic

1 TURN   1, 2   **1 TURN**   3, 4 N_S **TURNS**   5, 6

Iprimary

Isecondary

1   N   RT   Vref

APPLICATION CIRCUIT

Dimensions: $\frac{Inches}{mm}$
Unless otherwise specified, all tolerances are ± $\frac{.010}{0,25}$

USA 858 674 8100 • Germany 49 7032 7806 0 • Singapore 65 6287 8998 • Shanghai 86 21 54643211 / 2 • China 86 755 33966678 • Taiwan 886 3 4641811

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