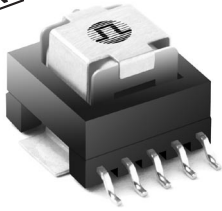
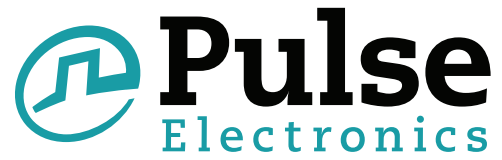


# SMT CURRENT SENSE TRANSFORMERS

## PB002XNL Series



- Height:** 10mm Max
- Footprint:** 19.9mm x 14.5mm Max
- Frequency Range:** 50kHz to 500kHz
- Current Rating:** up to 35A

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

Part Number <sup>5,6</sup>	Turns Ratio	Secondary Inductance (mH MIN)	DCR (mΩ MAX)		Hipot (V <sub>RMS</sub> )
			Primary (11-12)	Secondary (2-4)	
PB0025NL	50:1	1.4	0.42	700	500
PB0026NL	100:1	5.6	0.42	1400	500
PB0027NL	200:1	22.4	0.42	2900	500

#### NOTES:

- The temperature of the 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.
- To calculate the value of the 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 a uni-polar current use the following formula:

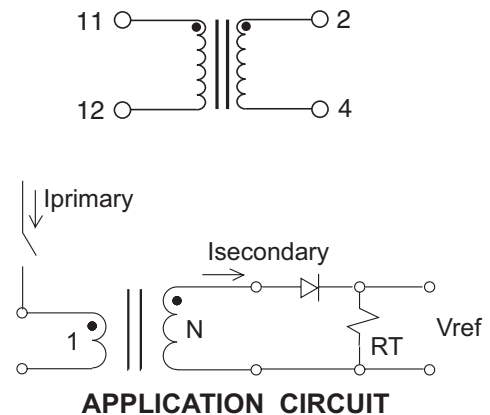
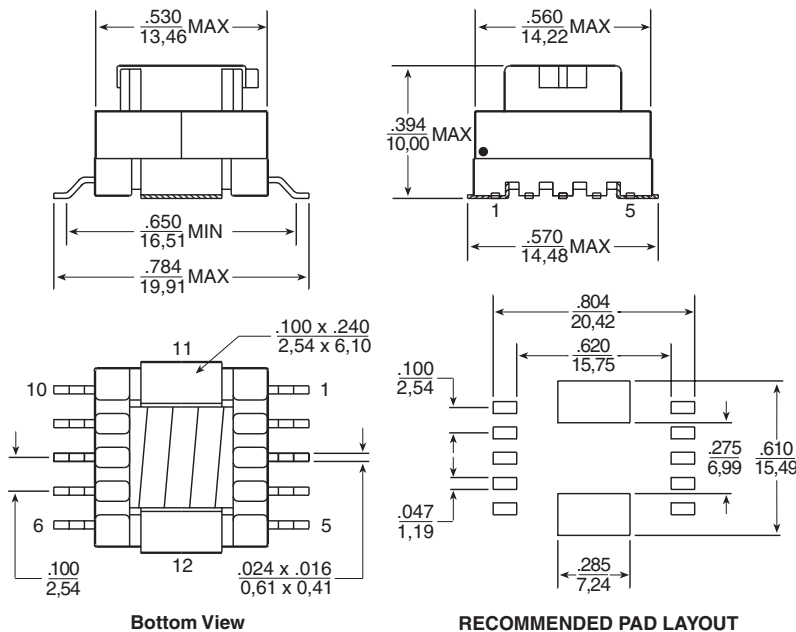
$$B_{PK} = 8.0 * V_{REF} * (Duty\_Cycle\_Max) * 10^5 / (N * Freq\_kHz)$$

\* for bi-polar current applications divide B<sub>PK</sub> as calculated above by 2.

- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PB0025NL becomes PB0025NLT). Pulse complies to industry standard tape and reel specification EIA481.
- 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

### Schematic



Weight ..... 4.7 grams  
 Tray ..... 100/tray  
 Tape & Reel ..... 300/reel  
 Coplanarity ..... 0.006 inches

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

Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0,25}$