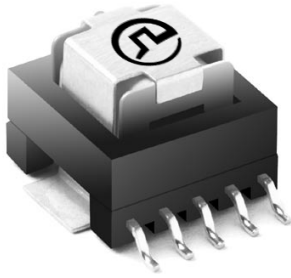


SMT Current Sense Transformers

PB002XNL Series



- Height:** 10mm Max
- Footprint:** 19.9mm x 15.0mm Max
- Frequency Range:** 50kHz to 500kHz
- Current Rating:** up to 35A

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

Part ^{5,6} Number	Turns Ratio	Secondary Inductance (mH MIN)	DCR (mΩ MAX)		Hipot (V _{RMS})
			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 when both one turn windings connected in parallel.
- To calculate the value of the terminating resistor (R_t) 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:

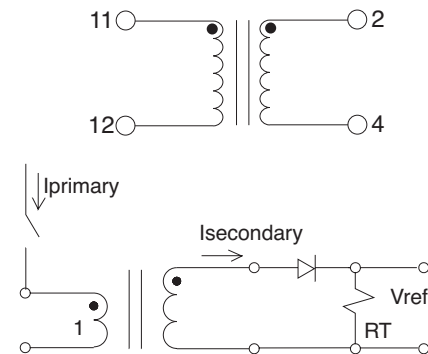
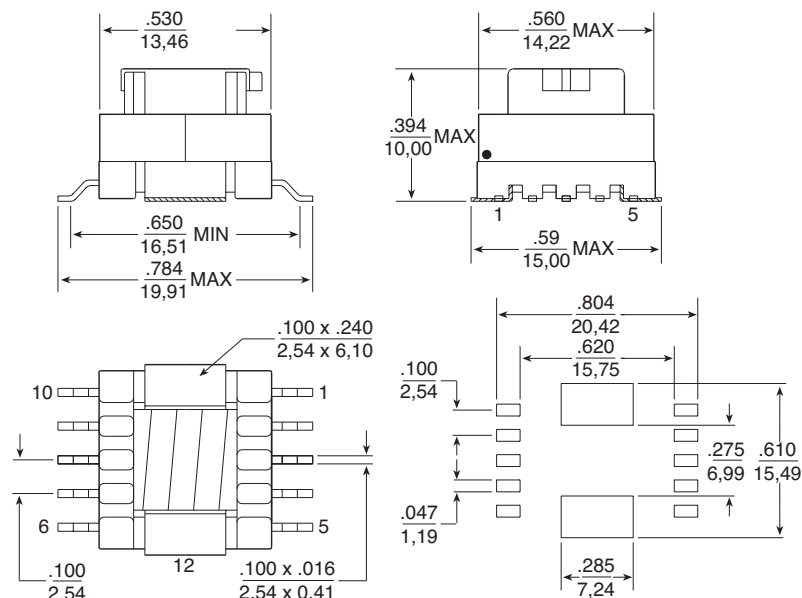
$$B_{PK} = 8.0 * V_{REF} * (Duty_Cycle_Max) * 10^5 / (N * Freq_kHz)$$

* for bi-polar current applications divide B_{PK} (as calculated above) by 2.
- Optional Tape & Packaging can be ordered by adding a "T" suffix to the part number (i.e. PB0025NL becomes PB0025NLT). Pulse complies to the 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

PBXXXXNL



APPLICATION CIRCUIT

Weight4.7 grams
 Tray100/tray
 Tape & Reel300/reel
 Coplanarity0.006 inches

Dimension: $\frac{\text{Inches}}{\text{mm}}$
 Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$