

# SMT Current Sense Transformers

PM820X Series



- Height: 5.5mm Max
- Footprint: 8.4mm x 7.2mm Max
- Current Rating: up to 10A
- Frequency Range: 50kHz to 1MHz
- Lower Primary DCR version available: PA1005.XXX series

Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C						
Part Number	Turns Ratio	Current <sup>2</sup> Rating (A)	Secondary Inductance (mH MIN)	DCR (mΩMAX)		Highpot (VRMS)
				Primary (8-7)	Secondary (1-3)	
PM8208NL	1:100	10	2.00	6	5500	500

**Notes:**

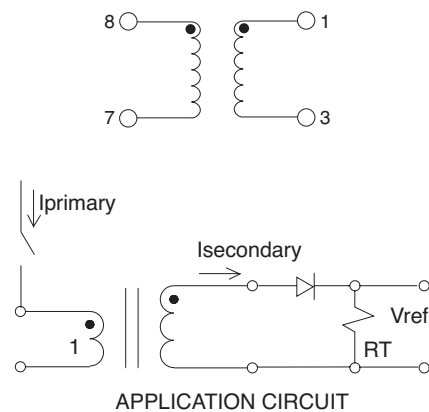
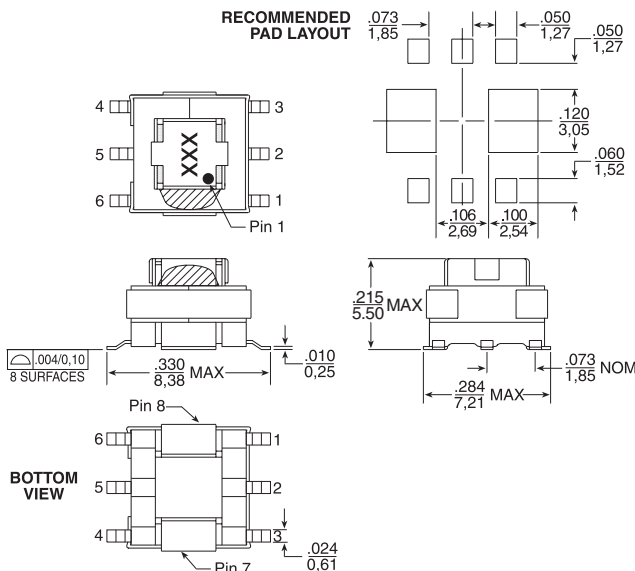
- The temperature of the component (ambient temperature plus temperature rise) must be within the specified operating temperature range.
- The maximum current rating is based upon temperature rise of the component and represents the DC current which will cause a typical temperature rise of 40°C with no airflow when both one turn windings connected in parallel.
- To calculate the value of the terminating resistor (Rt) use the following formula:  

$$R_t (W) = V_{ref} * N / (I_{peak\_primary})$$
- 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: 1. The maximum volt-usec rating limits the peak flux density to 3600 gauss when used in bi-polar drive application with 200KHz. For unipolar drive applications or a bi-polar drive with 350kHz, a maximum volt-usec could be 60% of the listed value. For Push-Pull topology, where the voltage is applied across half the primary winding turns, the maximum volts-use needs to be derated by 50%.

- $$B_{pk} = 37.59 * V_{ref} * (Duty\_Cycle\_Max) * 105 / (N * Freq\_kHz)$$
- \* 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. P8202NL becomes P8202NLT). 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 ..... 0.34 grams  
 Tray ..... 120/tray  
 Tape & Reel ..... 900/reel  
 Coplanarity ..... 0.004 inches

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