SMT Current Sense Transformers



PA1005.XXXNL and PM2165.XXXNL





- *•* Height: 5.5mm Max
- *P* Footprint: 8.4mm x 7.2mm Max
- Current Rating: up to 20A
- *P* Frequency Range: 20kHz to 1MHz
- *Description Description Description Description Description of P820X*

Electrical Specifications @ 25°C — Operating Temperature -40°C to +130°C							
Part Number			Current Rating ²	Secondary Inductance	DCR (m Ω MAX)		Hipot
Commerical	Automotive ⁷	Turns Ration	(A)	(mH MIN)	Primary (8-7)	Secondary (1-3)	(V _{RMS})
PA1005.020NL	PM2165.020NL	1:20	20	0.08	0.75	550	1000
PA1005.030NL	PM2165.030NL	1:30	20	0.18	0.75	870	1000
PA1005.040NL	PM2165.040NL	1:40	20	0.32	0.75	1140	1000
PA1005.050NL	PM2165.050NL	1:50	20	0.5	0.75	1500	1000
PA1005.060NL	PM2165.060NL	1:60	20	0.72	0.75	2250	1000
PA1005.070NL	PM2165.070NL	1:70	20	0.98	0.75	4750	1000
PA1005.100NL	PM2165.100NL	1:100	20	2.00	0.75	5500	1000
PA1005.125NL	PM2165.125NL	1:125	20	3.00	0.75	6500	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.
- To calculate value of terminating resistor (Rt) use the following formula: Rt (W) = Vref * N /(lpeak_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) * 10⁵ / (N * Freq_kHz) * for bi-polar current applications divide Bpk (as calculated above) by 2.

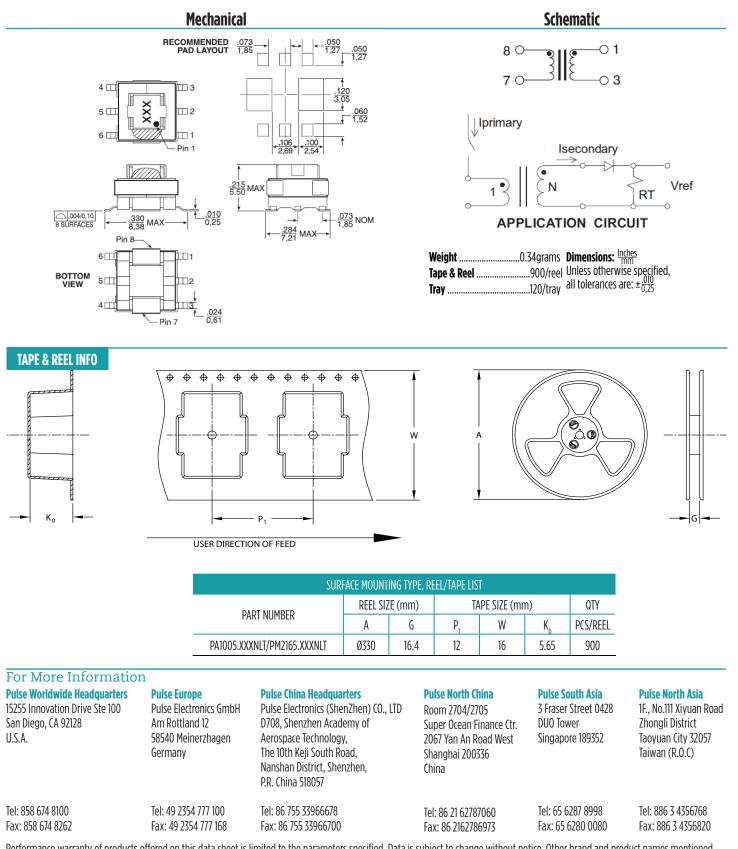
- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PA1005.020NL becomes PA1005.020NLT). Pulse complies to industry standard tape and reel specification EIA481.
- 6. The "NL" suffix indicates an RoHS-compliant part number. Non-NL suffixed parts are not necessarily 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.

 The PM2165.XXXNL part numbers are AEC-Q200 and IATF16949 certified. The mechanical dimensions are 100% tested in production but do not necessarily meet aproduct capability index (Cpk) >1.33 and therefore may not strictly conform to PPAP.

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