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SMT Current Sense Transformer

PA1005QNL Series



- ***Height**: 5.5mm Max*
- ***Footprint:** 8.4mm x 7.2mm Max*
- ***Current Rating:** up to 20A*
- ***Frequency Range:** 50kHz to 1MHz*

Electrical Specifications @ 25°C — Operating Temperature -40°C to +125°C

Part [5,6] Number	Turns Ratio	Current[2] Rating (A)	Secondary Inductance (mH MIN)	DCR (mΩ Max)		Hipot (V_{RMS})
				Primary (8-7)	Secondary (1-3)	
PA1005.020QNL	1:20	20	0.08	0.75	550	900
PA1005.030QNL	1:30	20	0.18	0.75	870	900
PA1005.040QNL	1:40	20	0.32	0.75	1140	900
PA1005.050QNL	1:50	20	0.50	0.75	1500	900
PA1005.060QNL	1:60	20	0.72	0.75	2250	900
PA1005.070QNL	1:70	20	0.98	0.75	4750	900
PA1005.100QNL	1:100	20	2.00	0.75	5500	900
PA1005.125QNL	1:125	20	3.00	0.75	6500	900

NOTES:

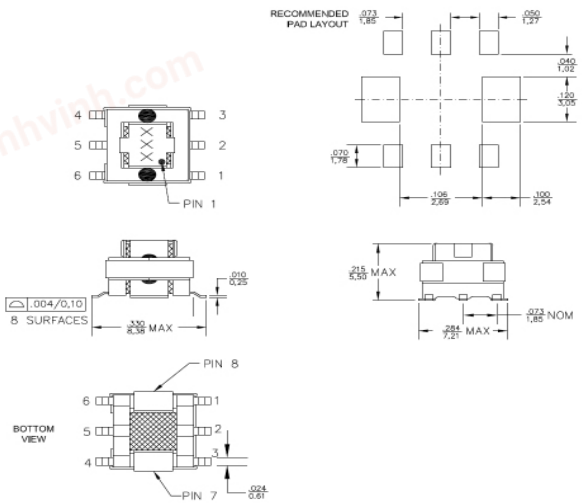
1. The temperature of component (ambient temperature plus temper-ature rise) must be within the specified operating temperature range.
2. The maximum current rating is based upon temperature rise of the component and represents the DC current which will cause a typical temperature rise of 40°C with no airflow when both one turn windings connected in parallel.
3. To calculate value of terminating resistor (Rt) use the following formula:
   $Rt\ (W) = V_{REF} * N / (Ipeak_primary)$
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:
   $Bpk = 37.59 * V_{REF} * (Duty_Cycle_Max) * 10^5 / (N * Freq_kHz)$
   * for bi-polar current applications divide Bpk (as calculated above) by 2.
5. Optional Tape & Reel packaging can be ordered by adding a "**T**" suffix to the part number (i.e. PA1005.020QNL becomes PA1005.020QNL**T**). Pulse complies to industry standard tape and reel specification EIA481.
6. The "**NL**" suffix indicates an RoHS-compliant part number.

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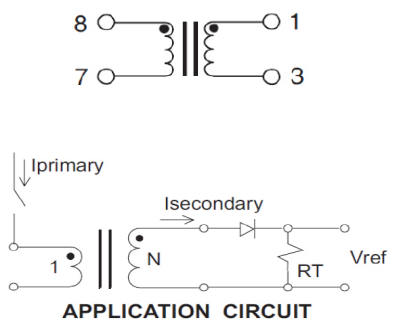
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Mechanical



Schematic

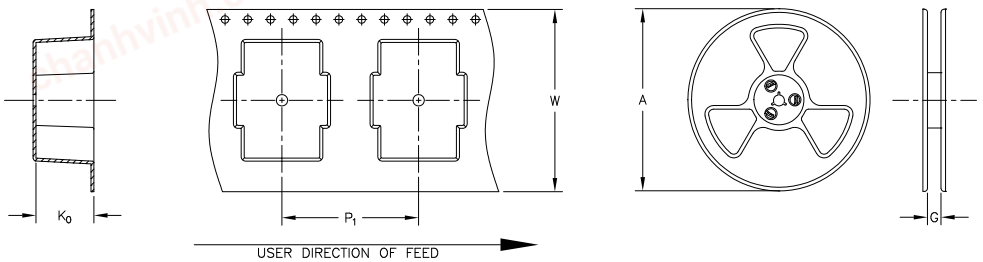


Weight . . . . . 0.34 grams
Tray. 120/tray
Tape & Reel 900/reel
Coplanarity. . . . . 0.004 inches

Dimensions: Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25

TAPE & REEL INFO



SURFACE MOUNTING TYPE, REEL/TAPE LIST						
PART NUMBER	REEL SIZE (mm)		TAPE SIZE (mm)			QTY
	A	G	P1	W	K0	PCS/REEL
PA1005.XXXQNLT	Ø330	16.4	12	16	5.65	900

For More Information

Americas - prodinfo_power_americas@yageo.com | **Europe -** prodinfo_power_emea@yageo.com | **Asia -** prodinfo_power_asia@yageo.com

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