## **SMT POWER INDUCTORS**

Ruggedized



- Maximum Reflow Temperature: 225°C (245°C for RoHS compliant)
- Moisture Sensitivity Level: 1
- © Can be made available in a RoHS configuration by special reguest (Sn100 lead finish)

Electrical Specifications @ 25 $^{\circ}$ C – Operating Temperature $-$ 40 $^{\circ}$ C to $+$ 130 $^{\circ}$ C											
Part5,6 Number	Turns Ratio	Current Rating	Secondary Inductance	DCR Primary (1,3-2,4)	DCR Secondary (5-6)	Hipot					
		(A)	(mH MIN)	(m $\Omega$ MAX)	$(m\Omega MAX)$						
PL1961	1:1:200	15.00	59.200	2.30	4200.0	500					

### NOTES:

- 1. The temperature of the component (ambient temperature plus tem-per-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 air flow when both one turn wind-ings connected in parallel.
- 3. To calculate the value of the terminating resistor (Rt) use the follow-ing formula: Rt (W) =VREF \* N / (Ipeak\_primary)

  4. 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: BPK = 14.29 \* VREF \* (Duty\_Cycle\_Max) \* 108 / (N \* Freq\_kHz) for bi-polarcurrent applications divide BPK as calculated above by 2.

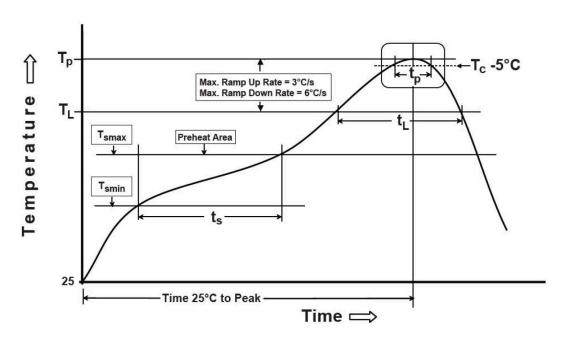
  5. For RoHS compliant parts add suffix NL to the part number.
- 6. Add T suffix to the part number for tape and reel packaging.

**Electrical Schematic** Mechanical PL1961 **INRC©**RE  $\frac{.490}{12,45}$  ±  $\frac{.015}{0,38}$  $200T \pm 23$ PART NUMBER DATE CODE U.S. PAT 5309130 Tape & Reel......300/reel .575 14,61 MAX Dimensions: Unless otherwise specified, all tolerances are ± .010 0,25 10,41 0,38 SUGGESTED PAD LAYOUT .005/0. 6 SURFACE





# Tin/Lead Recommended Reflow Profile (Based on J-STD-020D)



T <sub>SMIN</sub> (°C)	T <sub>SMAX</sub> (°C)	T <sub>L</sub> (°C)	T <sub>P</sub> (°C MAX)	t <sub>s</sub> (s)	t <sub>L</sub> (s)	t <sub>P</sub> (s MAX)	Ramp-up rate (T <sub>L</sub> to T <sub>P</sub> )	Ramp-down rate $(T_P \text{ to } T_L)$	Time 25°C to peak temperature (s MAX)
100	150	183	235	60-120	60-150	20	3°C/s MAX	6°C/s MAX	360

#### Notes:

- 1. All temperatures measured on the package leads.
- 2. Maximum times of reflow cycle: 2.

### **For More Information**

iNRCORE,LLC 311 Sinclair Road Bristol, PA 19007-6812 U.S.A Tel: + 1.215.781.6400

Fax: +1.215.7816430

Global Sales Representatives and Locations:

http://www.inrcore.com

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