

# SMT POWER INDUCTORS

## Unshielded Drum Core - PB2020NL Series



- Height:** 10.2mm Max
- Footprint:** 23.9mm x 20.8mm Max
- Current Rating:** up to 30A
- Inductance Range:** 0.68μH to 33μH

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

Part Number <sup>6,7</sup>	Inductance @ 0 A <sub>DC</sub> (μH ±20%)	Inductance @ I <sub>rated</sub> <sup>2</sup> (μH TYP)	I <sub>rated</sub> <sup>3</sup> (A <sub>DC</sub> )	DCR (mΩ)		Saturation <sup>4</sup> Current @ 25°C (A <sub>DC</sub> )	Heating <sup>5</sup> Current (A <sub>DC</sub> )
				(TYP)	(MAX)		
PB2020.681NL	0.68	0.62	30.0	1.60	1.80	70	30.0
PB2020.102NL	1.20	1.20	23.7	2.00	2.20	55	23.7
PB2020.222NL	2.20	1.90	21.8	2.60	2.80	40	21.8
PB2020.332NL	3.30	3.40	18.3	3.60	3.90	35	18.3
PB2020.472NL	4.70	4.40	16.8	4.20	4.50	28	16.8
PB2020.682NL	6.80	5.90	13.6	6.10	6.50	25	13.6
PB2020.103NL	10.00	8.40	12.6	7.40	7.80	20	12.6
PB2020.153NL	15.00	14.00	9.7	12.00	13.00	18	9.7
PB2020.223NL	22.00	19.00	8.1	17.00	20.00	13	8.1
PB2020.333NL	33.00	31.00	6.5	26.00	29.00	10	6.5

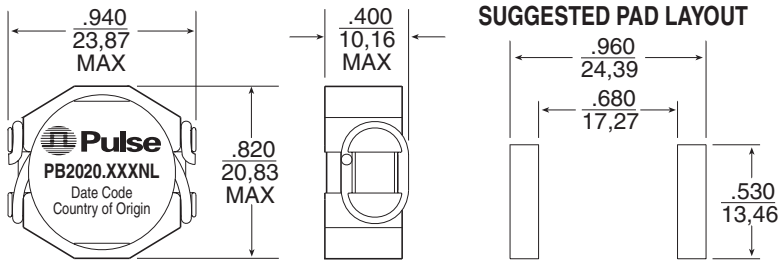
- NOTES:**
- The temperature of the component (ambient plus temperature rise) must be within the specified operating temperature range.
  - Inductance at I<sub>rated</sub> is typical inductance value for component taken at rated current.
  - The rated current listed is the lower of saturation current @ 25°C or heating current.
  - The saturation current, I<sub>sat</sub>, is the current at which the component inductance drops by 10% (typical) at an ambient temperature of 25°C. This current is determined by placing the component in the specified ambient environment and applying a short duration pulse current (to eliminate self-heating effects) to the component.
  - The heating current, I<sub>hc</sub>, is the DC current required to raise the component

temperature by approximately 40°C. The heating current is determined by mounting the component on a typical PCB and applying current for 30 minutes.

- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PB2020.102NL becomes PB2020.102NLT). 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 . . . . . 9.5 grams  
Tape & Reel . . . . . 100/reel  
Tray . . . . . 20/tray

Dimensions: Inches  
mm  
Unless otherwise specified, all tolerances are ± .010 / 0.25

