# THT/SMT Power Inductors

*Toroid - Designed for National's 150kHz Simple Switcher™*

- *Tested and recommended by National Semiconductor*
- *Base material meets flammability requirements of UL 94V-0*
- *Available in surface mount and through hole versions*

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

| Pulse THT Part Number | Pulse SMT Part Number | National Part Number | Turns Ratio | | | Nominal DCR (Ω) | Package | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Nominal Inductance (µH) | Rated Current ($A_{DC}$) | Max ETOP (V-µSec) | | Through Hole | Surface Mount | Lead Diameter |
| PE-53801NL * | PE-53801SNL | LM259X-L1 | 259 | 0.13 | 23.1 | 3.4 | LP-25 | LCI-20 | - |
| PE-53802NL | PE-53802SNL | LM259X-L2 | 178 | 0.16 | 16.5 | 2.8 | LP-25 | LCI-20 | - |
| PE-53803NL | PE-53803SNL | LM259X-L3 | 118 | 0.2 | 13.2 | 1.8 | LP-25 | LCI-20 | - |
| PE-53804NL * | PE-53804SNL * | LM259X-L4 | 79 | 0.25 | 9.9 | 1.5 | LP-25 | LCI-20 | - |
| PE-53805NL * | PE-53805SNL * | LM259X-L5 | 55 | 0.3 | 6.6 | 1.0 | LP-25 | LCI-20 | - |
| PE-53806NL * | PE-53806SNL | LM259X-L6 | 39 | 0.34 | 6.6 | .80 | LP-25 | LCI-20 | - |
| PE-53807NL | PE-53807SNL * | LM259X-L7 | 26 | 0.45 | 6.6 | .62 | LP-25 | LCI-20 | - |
| PE-53808NL | PE-53808SNL | LM259X-L8 | 374 | 0.2 | 75.9 | 2.7 | LP-30 | LCI-30 | - |
| PE-53809NL | PE-53809SNL | LM259X-L9 | 256 | 0.25 | 33 | 2.2 | LP-30 | LCI-30 | - |
| PE-53810NL | PE-53810SNL | LM259X-L10 | 176 | 0.3 | 26.4 | 1.4 | LP-30 | LCI-30 | - |
| PE-53811NL | PE-53811SNL | LM259X-L11 | 118 | 0.38 | 19.8 | 1.2 | LP-30 | LCI-30 | - |
| PE-53812NL | PE-53812SNL | LM259X-L12 | 78 | 0.46 | 16.5 | 0.8 | LP-30 | LCI-30 | - |
| PE-53813NL * | PE-53813SNL | LM259X-L13 | 55 | 0.56 | 13.2 | 0.5 | LP-30 | LCI-30 | - |
| PE-53814NL | PE-53814SNL | LM259X-L14 | 39 | 0.68 | 9.9 | 0.3 | LP-30 | LCI-30 | - |
| PE-53815NL * | PE-53815SNL | LM259X-L15 | 26 | 0.84 | 6.6 | 0.2 | LP-30 | LCI-30 | - |
| PE-53816NL | PE-53816SNL | LM259X-L16 | 17 | 1.02 | 6.6 | 0.1 | LP-30 | LCI-30 | - |
| PE-53817NL | PE-53817SNL | LM259X-L17 | 375 | 0.36 | 75.9 | 1.3 | LP-37 | LCI-37 | - |
| PE-53818NL | PE-53818SNL | LM259X-L18 | 252 | 0.44 | 49.5 | 0.9 | LP-37 | LCI-37 | - |
| PE-53819NL | PE-53819SNL | LM259X-L19 | 173 | 0.54 | 36.3 | 0.6 | LP-37 | LCI-37 | - |
| PE-53820NL | PE-53820SNL | LM259X-L20 | 115 | 0.67 | 29.7 | 0.4 | LP-37 | LCI-37 | - |
| PE-53821NL | PE-53821SNL | LM259X-L21 | 78 | 0.82 | 23.1 | 0.3 | LP-37 | LCI-37 | - |
| PE-53822NL | PE-53822SNL | LM259X-L22 | 54 | 1.0 | 16.5 | 0.2 | LP-37 | LCI-37 | - |
| PE-53823NL | PE-53823SNL | LM259X-L23 | 38 | 1.2 | 13.2 | 0.1 | LP-37 | LCI-37 | - |
| PE-53824NL * | PE-53824SNL | LM259X-L24 | 26 | 1.48 | 9.9 | 0.1 | LP-37 | LCI-37 | - |
| PE-53825NL | PE-53825SNL | LM259X-L25 | 18 | 1.81 | 9.9 | 0.06 | LP-37 | LCI-37 | - |

# THT/SMT Power Inductors

*Toroid - Designed for National's 150kHz Simple Switcher™*

Pulse A YAGEO Company

| Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Pulse THT Part Number | Pulse SMT Part Number | National Part Number | Turns Ratio | | | Nominal DCR (Ω) | Package | | |
| | | | Nominal Inductance (µH) | Rated Current ($A_{DC}$) | Max ETOP (V-µSec) | | Through Hole | Surface Mount | Lead Diameter |
| **PE-53827NL** | **PE-53827SNL** | LM259X-L27 | 248 | 0.83 | 72.6 | 0.6 | LP-44 | LCI-44 | - |
| **PE-53828NL** | **PE-53828SNL** | LM259X-L28 | 168 | 1.02 | 56.1 | 0.4 | LP-44 | LCI-44 | - |
| **PE-53829NL** | **PE-53829SNL** | LM259X-L29 | 112 | 1.26 | 42.9 | 0.3 | LP-44 | LCI-44 | - |
| **PE-53830NL** | **PE-53830SNL** | LM259X-L30 | 77 | 1.54 | 33 | 0.2 | LP-44 | LCI-44 | - |
| **PE-53831NL** | **PE-53831SNL** | LM259X-L31 | 53 | 1.87 | 26.4 | 0.13 | LP-44 | LCI-44 | - |
| **PE-53932NL** | **PE-53932SNL** | LM259X-L32 | 37 | 2.24 | 19.8 | 0.10 | LP-44 | LCI-44 | - |
| **PE-53933NL** | **PE-53933SNL** | LM259X-L33 | 24 | 2.74 | 16.5 | 0.07 | LP-44 | LCI-44 | - |
| **PE-53934NL** * | **PE-53934SNL** | LM259X-L34 | 17 | 3.0 | 13.2 | 0.05 | KM-1.0 | LCI-44 | .023 |
| **PE-53935NL** | **PE-53935SNL** | LM259X-L35 | 250 | 1.5 | 72.6 | 0.23 | KM-3.0 | HCI-68 | .023 |
| **PE-54036NL** | **PE-54036SNL** | LM259X-L36 | 168 | 1.81 | 75.9 | 0.18 | KM-3.0 | HCI-68 | .023 |
| **PE-54037NL** | **PE-54037SNL** | LM259X-L37 | 114 | 2.22 | 62.7 | 0.10 | KM-3.0 | HCI-68 | .025 |
| **PE-54038NL** | **PE-54038SNL** | LM259X-L38 | 77 | 2.7 | 52.8 | 0.09 | KM-3.0 | HCI-68 | .025 |
| **PE-54039NL** | **PE-54039SNL** | LM259X-L39 | 53 | 3.0 | 42.9 | 0.08 | KM-3.0 | HCI-68 | .025 |
| **PE-54040NL** | **PE-54040SNL** | LM259X-L40 | 38 | 3.0 | 29.7 | 0.05 | KM-3.0 | HCI-68 | .028 |
| **PE-54041NL** | **PE-54041SNL** | LM259X-L41 | 25 | 3.0 | 19.8 | 0.04 | KM-2.0 | HCI-50 | .028 |
| **PE-54042NL** | - | LM259X-L42 | 167 | 2.5 | 75.9 | 0.14 | KM-4.0 | - | .028 |
| **PE-54043NL** | - | LM259X-L43 | 121 | 3.0 | 75.9 | 0.09 | KM-4.0 | - | .031 |
| **PE-54044NL** | **PE-54044SNL** | LM259X-L44 | 77 | 3.0 | 59.4 | 0.08 | KM-3.0 | HCI-68 | .025 |
| **PE-53900NL** | - | LM259X-L | 19 | 4.5 | 32[3] | 0.02 | KM-3.0 | - | .035 |

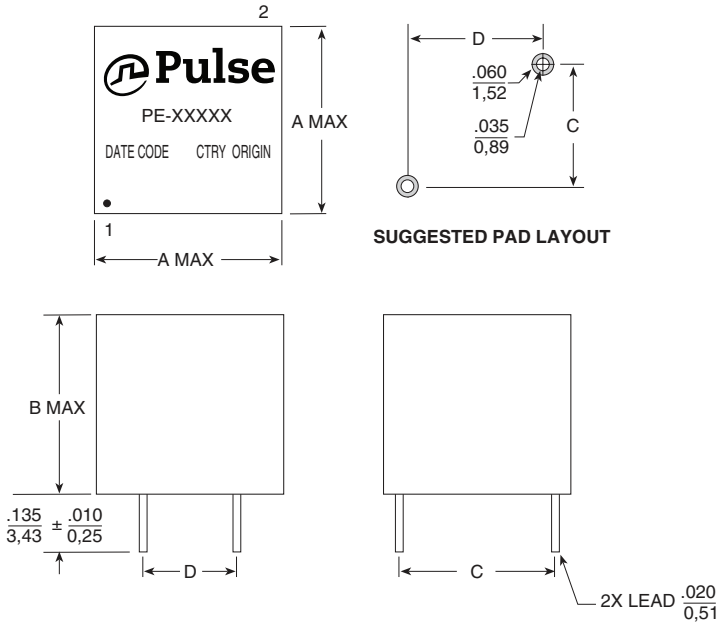
**Notes:**

1. Inductance values may vary ±20%.
2. ETop rated at 150kHz except where designated.
3. ETop rated at 100kHz.
4. SIMPLE SWITCHER™ is a trademark of National Semiconductor Corp.
5. For SMT parts, optional Tape & Reel packaging can be ordered by addin a "T" suffix to the part number (i.e. PE-53801SNL becomes PE-53801SNLT). 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 necesssarily 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.
7. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

* Contact Pulse for availability

## Mechanical

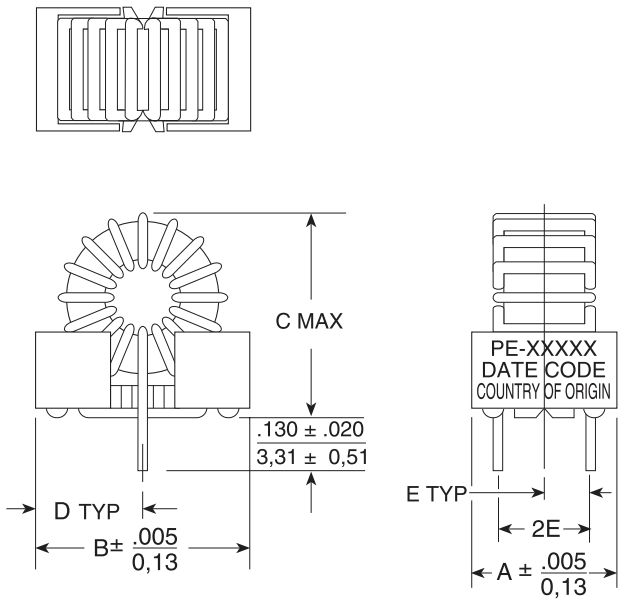
### LP series




| PKG | A | B | C | D |
|---|---|---|---|---|
| LP-25 | .360<br>9,14 | .310<br>7,87 | .250<br>6,35 | .250<br>6,35 |
| LP-30 | .400<br>10,16 | .300<br>7,62 | .300<br>7,62 | .300<br>7,62 |
| LP-37 | .495<br>12,57 | .375<br>9,52 | .375<br>9,52 | .375<br>9,52 |
| LP-44 | .635<br>16,13 | .365<br>9,27 | .500<br>12,7 | .300<br>7,62 |

## Mechanical

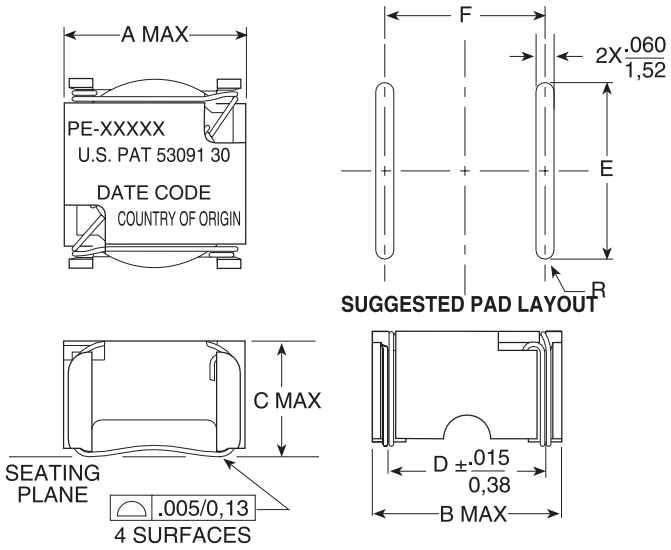
### KM Series




| PKG | A | B | C | D | E |
|---|---|---|---|---|---|
| KM-1.0 | .340<br>8,64 | .580<br>14,73 | .650<br>16,51 | .290<br>7,37 | .110<br>2,79 |
| KM-2.0 | .450<br>11,43 | .650<br>16,51 | .700<br>17,73 | .325<br>8,26 | .150<br>3,81 |
| KM-3.0 | .450<br>11,43 | .830<br>21,08 | .950<br>24,13 | .415<br>10,54 | .150<br>3,81 |
| KM-4.0 | .610<br>15,50 | .970<br>24,64 | 1.10<br>27,94 | .475<br>12,07 | .225<br>5,72 |

## Mechanical

### LCI Series

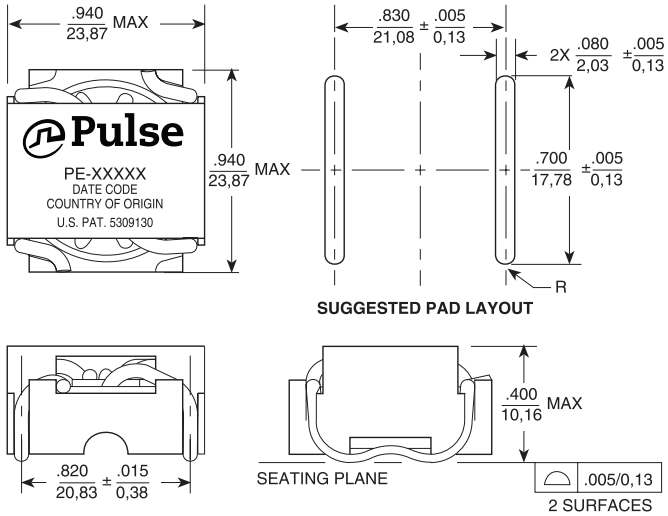



| PKG | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| LCI-20 | .340 8,64 | .340 8,64 | .270 6,86 | .260 6,60 | .300 7,62 | .270 6,86 |
| LCI-30 | .450 11,05 | .440 11,18 | .360 9,14 | .350 8,89 | .400 10,16 | .360 9,14 |
| LCI-37 | .565 14,35 | .570 14,48 | .360 9,14 | .450 11,43 | .520 13,21 | .460 11,68 |
| LCI-44 | .600 15,24 | .620 15,75 | .390 9,91 | .500 12,7 | .550 13,97 | .510 12,95 |
| LCI-50 | .670 17,02 | .700 17,78 | .390 9,91 | .580 14,73 | .620 15,75 | .590 14,99 |

**Notes:**
Dimension "D" is measured across terminal blocks only.
Coil must clear seating plane by .010 0,25 MIN

## Mechanical

### HCI-68




**Notes:**
Coil must clear seating plane by .010 0,25 MIN

**Dimensions:** Inches / mm
Unless otherwise specified,
all tolerances are: ± .010 0,25

## For More Information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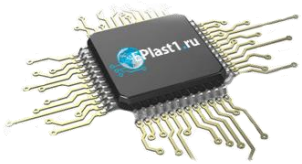
Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.




**Как с нами связаться**

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