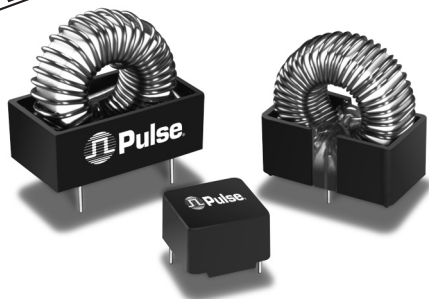





# INDUCTORS DESIGNED FOR NATIONAL'S 50 kHz SIMPLE SWITCHER™



-  Designed for use with National's device numbers LM2574/LM2575/LM2576
-  Base material meets flammability requirements of UL 94V-0
-  Performance verified by National Semiconductor

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

| Part Identification |               | Reference Operating Values <sup>1</sup> |                        |                           | Design Control Values                    |             |               |               |
|---------------------|---------------|---|------------------------|---------------------------|--|-------------|---------------|---------------|
| Part Number         | Inductor Code | Inductance Typical (μH)                 | I <sub>dc</sub> (Amps) | E <sub>Top</sub> (V-μSec) | Inductance No DC <sup>2</sup> (μH ± 20%) | DCR (Ω MAX) | Package Style | Lead Diameter |
| PE-53112            | L47           | 47                                      | 3.0                    | 90                        | 38                                       | 0.05        | KM-2.0        | .025          |
| PE-92114K           | L68           | 36                                      | 5.0                    | 90                        | 56                                       | 0.02        | KM-4.0        | .040          |
| PE-92108K           | L100          | 100                                     | 3.0                    | 90                        | 91                                       | 0.04        | KM-4.0        | .032          |
| PE-53113            | L150          | 150                                     | 2.0                    | 90                        | 130                                      | 0.10        | KM-4.0        | .025          |
| PE-52626            | L220          | 220                                     | 1.4                    | 90                        | 230                                      | 0.38        | Low Profile   | .025 SQ.      |
| PE-53145            | L220          | 220                                     | 1.4                    | 90                        | 176                                      | 0.14        | KM-3.0        | .020          |
| PE-52627            | L330          | 330                                     | 0.9                    | 90                        | 302                                      | 0.74        | Low Profile   | .025 SQ.      |
| PE-53146            | L330          | 330                                     | 0.9                    | 90                        | 267                                      | 0.18        | KM-3.0        | .020          |
| PE-53114            | L470          | 470                                     | 0.64                   | 90                        | 426                                      | 0.16        | KM-4.0        | .025          |
| PE-52629            | L680          | 680                                     | .85                    | 90                        | 657                                      | 1.25        | Low Profile   | .025 SQ.      |
| PE-53115            | H150          | 150                                     | 3.0                    | 200                       | 136                                      | 0.10        | KM-4.0        | .025          |
| PE-53116            | H220          | 220                                     | 3.0                    | 200                       | 167                                      | 0.07        | KM-5.0        | .032          |
| PE-53117            | H330          | 330                                     | 3.0                    | 200                       | 292                                      | 0.15        | KM-5.0        | .025          |
| PE-53118            | H470          | 470                                     | 2.0                    | 200                       | 369                                      | 0.17        | KM-5.0        | .025          |
| PE-53119            | H680          | 680                                     | 1.3                    | 200                       | 562                                      | 0.20        | KM-5.0        | .025          |
| PE-53120            | H1000         | 1000                                    | 0.95                   | 200                       | 762                                      | 0.24        | KM-5.0        | .025          |
| PE-53121            | H1500         | 1500                                    | 0.62                   | 200                       | 1150                                     | 1.00        | Case          | .032          |
| PE-53122            | H220          | 2200                                    | 0.42                   | 200                       | 1886                                     | 1.80        | Case          | .032          |

### NOTES:

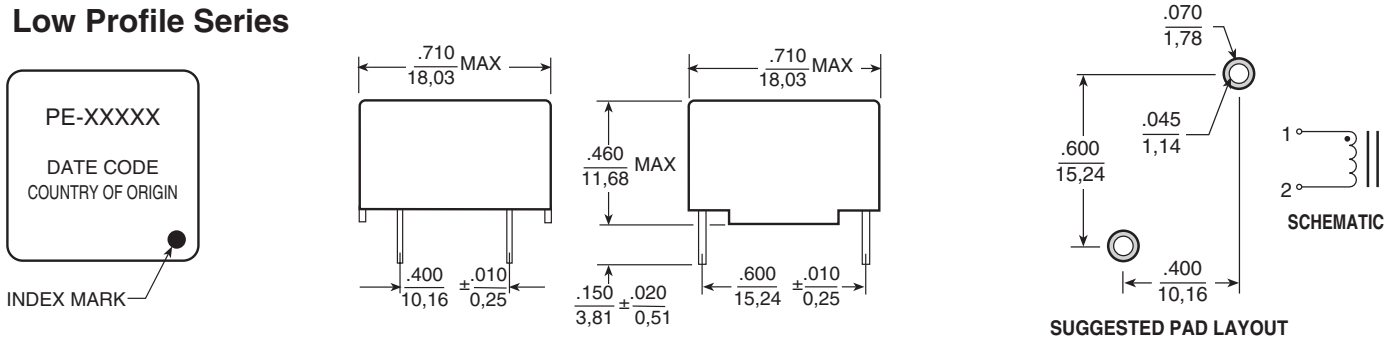
1. Typical inductance occurs at the I<sub>DC</sub> and E<sub>TOP</sub> values shown.
2. The control value of inductance is measured at B<sub>OP</sub> equal to or less than 10 gauss without DC current.
3. Inductance decreases with higher values of DC current and increases with lower values of DC current.
4. Inductance increases with increase in B<sub>OP</sub> or E<sub>TOP</sub>.
5. SIMPLE SWITCHER™ is a trademark of National Semiconductor Corporation.
6. RoHS compliant parts are available. Order RoHS compliant parts by adding the suffix "NL" to the part number (i.e. PE-53112 becomes PE-53112NL).

# INDUCTORS DESIGNED FOR NATIONAL'S 50 kHz SIMPLE SWITCHER™

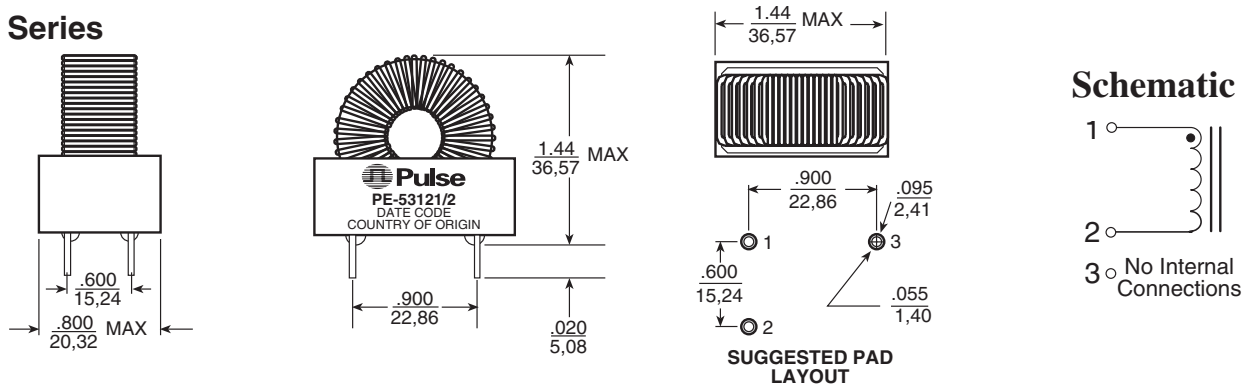


## Mechanicals

### Low Profile Series



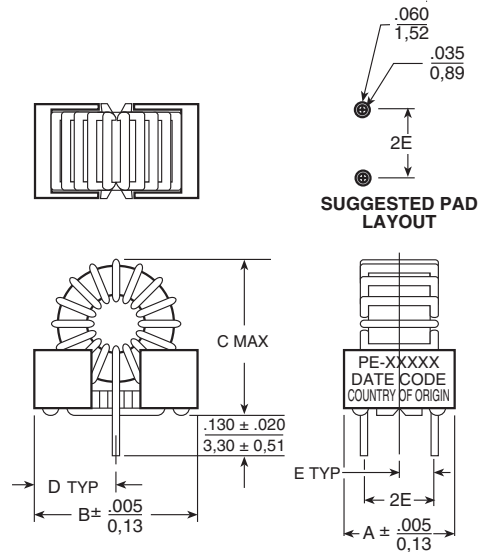
### Case Series



### KlipMount Series

| PKG    | A             | B             | C             | D             | E            |
|--------|---------------|---------------|---------------|---------------|--------------|
| KM-2.0 | .450<br>11,43 | .650<br>16,51 | .700<br>17,78 | .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 |
| KM-5.0 | .700<br>17,78 | 1.30<br>33,02 | 1.40<br>35,56 | .625<br>15,88 | .250<br>6,35 |

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0,25}$



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