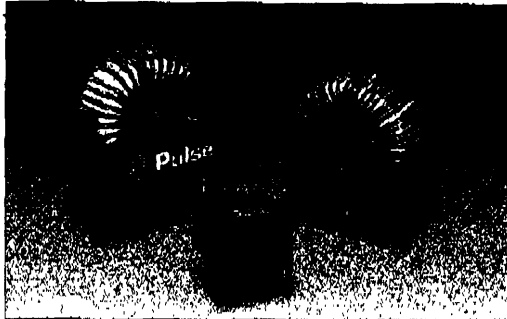


# INDUCTORS DESIGNED FOR NATIONAL'S 50 KHz SIMPLE SWITCHER™



- 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:  $T = 25^{\circ}\text{C}$  Operating Temperature:  $-30^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$

| Part Identification |               | Reference Operating Values <sup>(1)</sup> |                 |                                 | Design Control Values                                      |                     |               |               |
|---------------------|---------------|-------------------------------------------|-----------------|---------------------------------|------------------------------------------------------------|---------------------|---------------|---------------|
| Pulse Part Number   | Inductor Code | Inductance Typical ( $\mu\text{H}$ )      | $I_{DC}$ (Amps) | $E_{TOP}$ (V- $\mu\text{Sec}$ ) | Inductance No DC <sup>(2)</sup> ( $\mu\text{H} \pm 20\%$ ) | DCR ( $\Omega$ MAX) | Package Style | Lead Diameter |
| PE-53112            | L47           | 47                                        | 3.0             | 90                              | 38                                                         | 0.05                | KM-2.0        | .025          |
| PE-92114K           | L68           | 68                                        | 3.0             | 90                              | 55                                                         | 0.02                | KM-4.0        | .040          |
| PE-92108K           | L100          | 100                                       | 3.0             | 90                              | 91                                                         | 0.04                | KM-4.0        | .032          |
| PE-53113            | L160          | 160                                       | 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            | H160          | 160                                       | 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                             | 662                                                        | 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                             | 1730                                                       | 1.80                | Case          | .032          |

## Notes:

- Typical Inductance occurs at the  $I_{DC}$  and  $E_{TOP}$  values shown.
- The control value of Inductance is measured at  $B_{OP}$  equal to or less than 10 gauss (10 mV @ 20 KHz) without DC current.
- Inductance decreases with higher values of DC current and increases with lower values of DC current.
- Inductance increases with increase in  $B_{OP}$  or  $E_{TOP}$ .
- SIMPLE SWITCHER™ is a trademark of National Semiconductor Corporation.

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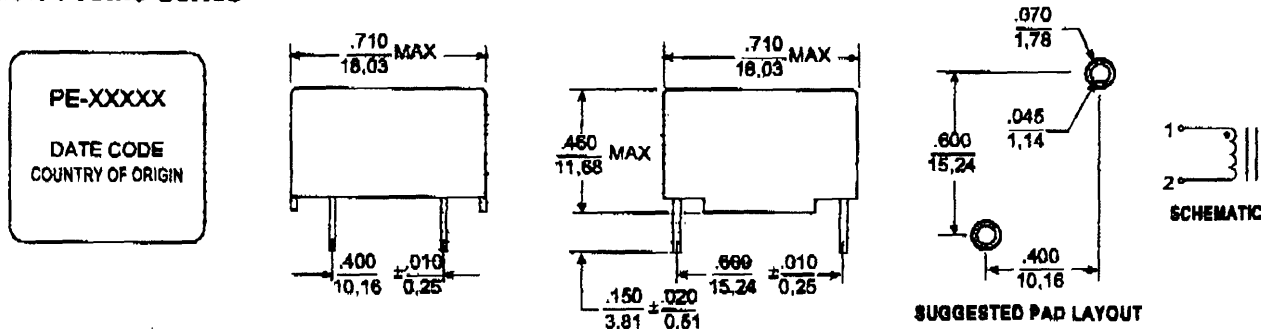
PC501.E (12/97)

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

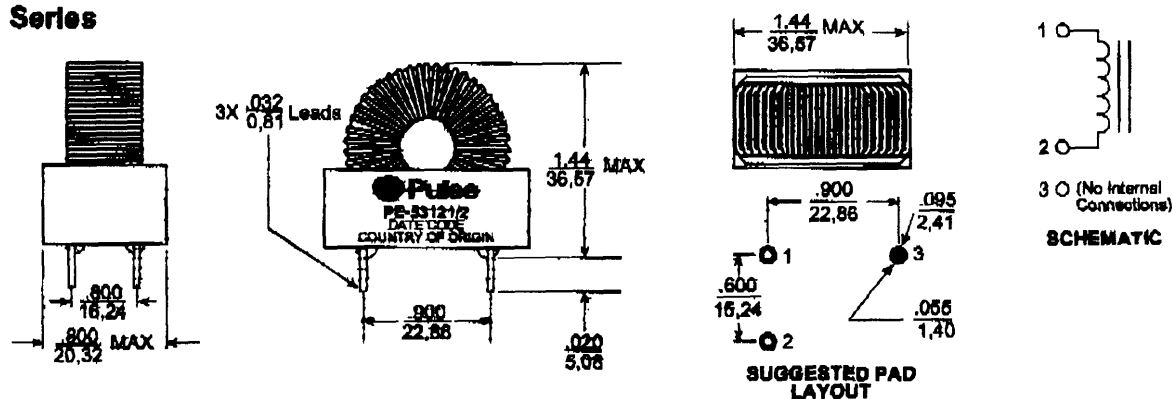


## Mechanicals

### Low Profile Series



### Case Series



### KilpMount Series

| PKG    | A             | B             | C             | D             | E            | F            |
|--------|---------------|---------------|---------------|---------------|--------------|--------------|
| KM-2.0 | .450<br>11.43 | .850<br>21.51 | .700<br>17.73 | .325<br>8.26  | .150<br>3.81 | .130<br>3.30 |
| KM-3.0 | .450<br>11.43 | .830<br>21.08 | .850<br>21.43 | .415<br>10.54 | .150<br>3.81 | .130<br>3.30 |
| KM-4.0 | .600<br>15.24 | .850<br>21.43 | 1.00<br>25.4  | .475<br>12.07 | .225<br>5.72 | .130<br>3.30 |
| KM-5.0 | .700<br>17.73 | 1.30<br>33.02 | 1.40<br>35.56 | .625<br>15.88 | .250<br>6.35 | .130<br>3.30 |

Unless otherwise specified,  
all tolerances are  $\pm .010$   
0.25

Dimensions: Inches  
mm

