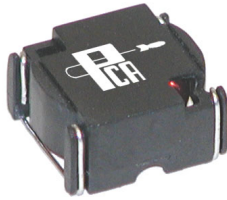


## EPI B44 Series



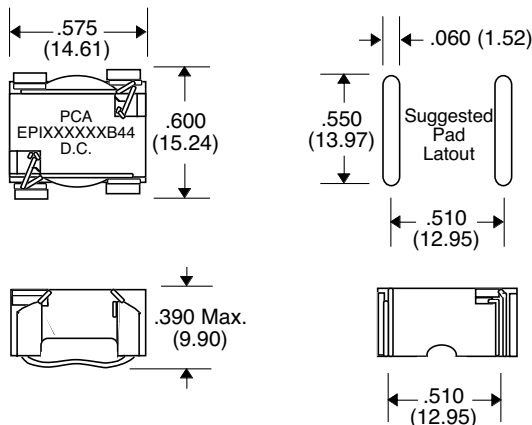
- 150 KHz Switching Frequency for National's LM259X Series
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 500 KHz Switching Frequency

### Primary Specification

| Part Number  | National Semiconductor Chip | Induct. ( $\mu\text{H} \pm 15\%$ ) @ 0 Adc | DCR ( $\Omega$ Typ.) | Induct. ( $\mu\text{H} \pm 15\%$ ) @ Idc | Idc (Amps) | Vt1 (V- $\mu\text{Sec}$ ) @ 500 KHz | Vt2 (V- $\mu\text{Sec}$ ) @ 150 KHz | Temp.Rise @ Vt1 $^{\circ}\text{C}$ (Typ.) | Temp.Rise @ Vt2 $^{\circ}\text{C}$ (Typ.) |
|--------------|-----------------------------|--|----------------------|--|------------|-------------------------------------|-------------------------------------|---|---|
| EPI0L8103B44 | ---                         | 0.92                                       | .0036                | .82 $\pm 20\%$                           | 10.0       | 1.2                                 | ---                                 | 38  | ---                                       |
| EPI1L5902B44 | ---                         | 1.60                                       | .0048                | 1.5 $\pm 20\%$                           | 9.0        | 1.6                                 | ---                                 | 40  | ---                                       |
| EPI2L2802B44 | ---                         | 2.55                                       | .0061                | 2.2 $\pm 20\%$                           | 8.0        | 2.0                                 | ---                                 | 40  | ---                                       |
| EPI3L3702B44 | ---                         | 4.31                                       | .0079                | 3.3                                      | 7.0        | 2.6                                 | ---                                 | 40  | ---                                       |
| EPI4L5602B44 | ---                         | 5.74                                       | .009                 | 4.5                                      | 6.0        | 3.0                                 | ---                                 | 35  | ---                                       |
| EPI6L5502B44 | ---                         | 8.26                                       | .014                 | 6.5                                      | 5.0        | 3.6                                 | ---                                 | 37  | ---                                       |
| EPI100452B44 | ---                         | 13.5                                       | .022                 | 10                                       | 4.5        | 4.6                                 | ---                                 | 45  | ---                                       |
| EPI150352B44 | LM259X-L34                  | 20.0                                       | .027                 | 15                                       | 3.5        | 5.6                                 | 13.3                                | 36  | 38  |
| EPI220312B44 | LM259X-L33                  | 29.5                                       | .043                 | 22                                       | 3.1        | 6.8                                 | 16.7                                | 41  | 43  |
| EPI330252B44 | LM259X-L32                  | 45.0                                       | .065                 | 33                                       | 2.5        | 8.4                                 | 20.0                                | 41  | 43  |
| EPI470222B44 | LM259X-L31                  | 63.75                                      | .077                 | 47                                       | 2.2        | 10.0                                | 24.7                                | 39  | 41  |
| EPI560202B44 | ---                         | 77.0                                       | .121                 | 56                                       | 2.0        | 11.0                                | ---                                 | 44  | ---                                       |
| EPI680182B44 | LM259X-L30                  | 95.0                                       | .122                 | 68                                       | 1.8        | 12.2                                | 30                                  | 40  | 42  |
| EPI101152B44 | LM259X-L29                  | 140  | .182                 | 100                                      | 1.5        | 14.8                                | 36.7                                | 41  | 43  |
| EPI151122B44 | LM259X-L28                  | 202  | .284                 | 150                                      | 1.2        | 17.8                                | 43.3                                | 41  | 43  |
| EPI221102B44 | LM259X-L27                  | 303  | .427                 | 220                                      | 1.0        | 21.8                                | 53.3                                | 42  | 45  |
| EPI331801B44 | LM259X-L26                  | 451  | .650                 | 330                                      | 0.8        | 26.6                                | 65.3                                | 42  | 44  |
| EPI471701B44 | ---                         | 645  | .778                 | 470                                      | 0.7        | 31.8                                | ---                                 | 39  | ---                                       |
| EPI681581B44 | ---                         | 930  | 1.20                 | 680                                      | 0.58       | 38.2                                | ---                                 | 41  | ---                                       |
| EPI102481B44 | ---                         | 1372                                       | 1.45                 | 1000                                     | 0.48       | 46.4                                | ---                                 | 36  | ---                                       |

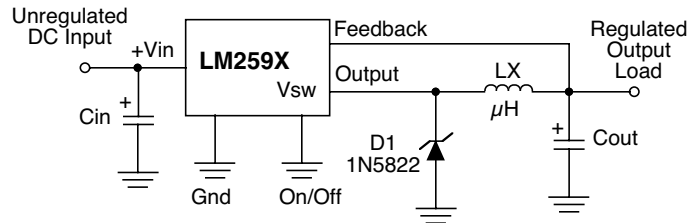
• Core Loss at Ref. Vt1 : 45 mW • Core Loss at Ref. Vt2 : 72 mW •

### Package B44



Note: Coplanarity within .005" Max.

### Application



Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$