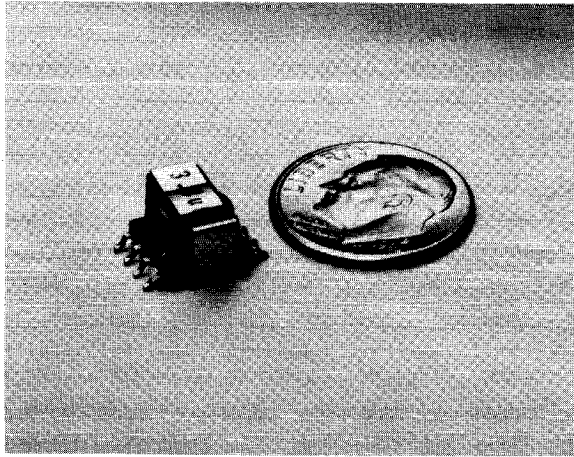




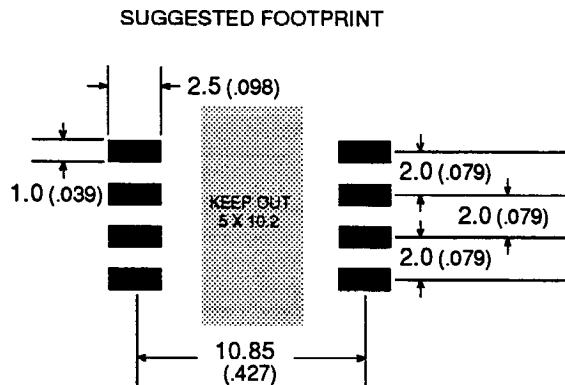
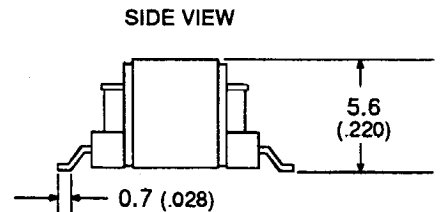
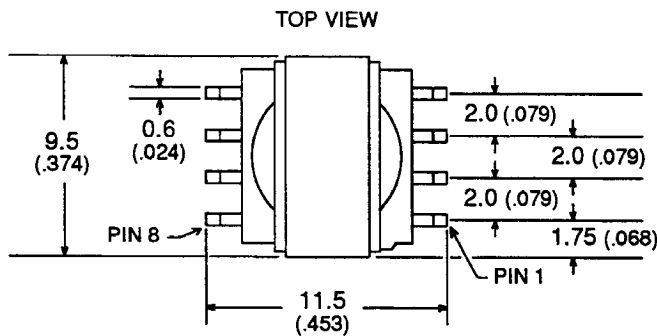
SL2 SERIES (9.5 W X 11.5 D X 5.6 H) HIGH CURRENT SURFACE MOUNT INDUCTORS



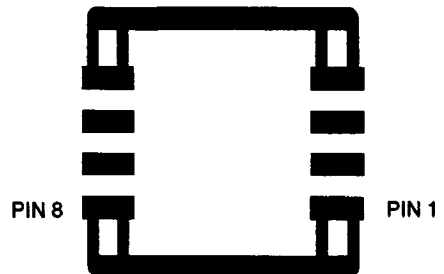
Features

- Surface Mount
- Miniature 9.5 W x 11.5 D x 5.6 H mm
- Low Profile, 5.6 mm
- Multiple Versions to Match Applications
- High Frequency Power Ferrite Core
- No External Air Gap for Low EMI
- Designed for Voltage Regulator ICs
- Inductance Range, 1 μ H to 1000 μ H
- High Peak Current Ratings, up to 21 Amps
- High RMS Current Ratings, up to 8 Amps
- Operating Temperature -40°C to 120°C

Pin Configuration and Dimensions



UNIVERSAL CIRCUIT LAYOUT FOR TYPE A AND B INDUCTORS



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SL2 SERIES

Ordering Information

Part Number: **SL2 - A 20 - 473**

MODEL

Surface Mount Inductor
9.5 W x 11.5 D x 5.6 H

TYPE

A = Schematic A
B = Schematic B

PEAK TO RMS CURRENT

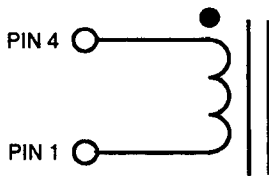
20 = Approx. 4 to 1
40 = Approx. 2 to 1
60 = Approx. 1 to 1
70 = Approx. 1 to 1

INDUCTANCE VALUE

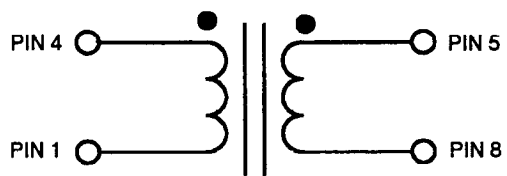
Two significant figures plus
number of zeros to follow
in nH.

Schematics

SCHMATIC A
TYPE A INDUCTOR



SCHMATIC B
TYPE B INDUCTOR



Notes

1. Part number see ordering information
2. Inductance in uH $\pm 15\%$ tolerance.
3. RMS (DC) Current in amps for a coil temperature rise of 20°C.
4. RMS (DC) Current in amps for a coil temperature rise of 40°C.
5. Peak Current in amps for a 10% drop in iductance at 60°C core temperature.
6. Peak Current in amps for a 10% drop in iductance at 85°C core temperature.
7. Peak Current in amps for a 20% drop in iductance at 60°C core temperature.
8. Peak Current in amps for a 20% drop in iductance at 85°C core temperature.
9. DC Resistance in ohms.

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SL2 SERIES

| PART NUMBER (Note 1) | INDUCTANCE uH (Note 2) | RMS CURRENT, AMPS | | PEAK AMPS (10% L DROP) | | PEAK AMPS (20% L DROP) | | DCR OHMS (Note 9) |
|----------------------------|------------------------------|-----------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|-------------------------|
| | | 20°C RISE (Note 3) | 40°C RISE (Note 4) | 60°C CORE (Note 5) | 85°C CORE (Note 6) | 60°C CORE (Note 7) | 85°C CORE (Note 8) | |
| SL2-A20-102 | 1.0 | 3.37 | 4.77 | 18.52 | 16.99 | 21.67 | 19.88 | 0.017 |
| SL2-B60-102 | 1.0 | 5.64 | 7.97 | 9.48 | 8.70 | 11.58 | 10.62 | 0.006 |
| SL2-A20-152 | 1.5 | 2.98 | 4.21 | 14.41 | 13.21 | 16.86 | 15.46 | 0.022 |
| SL2-A60-152 | 1.5 | 3.99 | 5.65 | 7.59 | 6.96 | 9.26 | 8.49 | 0.012 |
| SL2-A20-222 | 2.2 | 2.82 | 3.99 | 12.97 | 11.89 | 15.17 | 13.91 | 0.025 |
| SL2-A60-222 | 2.2 | 3.64 | 5.15 | 6.32 | 5.80 | 7.72 | 7.08 | 0.015 |
| SL2-A20-332 | 3.3 | 2.21 | 3.13 | 9.97 | 9.15 | 11.67 | 10.70 | 0.041 |
| SL2-A40-332 | 3.3 | 2.98 | 4.21 | 6.66 | 6.11 | 7.94 | 7.28 | 0.022 |
| SL2-A70-332 | 3.3 | 3.37 | 4.77 | 4.54 | 4.16 | 5.61 | 5.14 | 0.017 |
| SL2-A20-472 | 4.7 | 1.83 | 2.58 | 8.64 | 7.93 | 10.11 | 9.28 | 0.059 |
| SL2-B40-472 | 4.7 | 3.02 | 4.27 | 5.45 | 5.00 | 6.49 | 5.96 | 0.022 |
| SL2-A70-472 | 4.7 | 3.16 | 4.46 | 3.97 | 3.64 | 4.91 | 4.50 | 0.020 |
| SL2-A20-682 | 6.8 | 1.67 | 2.36 | 7.20 | 6.61 | 8.43 | 7.73 | 0.071 |
| SL2-A40-682 | 6.8 | 2.21 | 3.13 | 4.61 | 4.23 | 5.50 | 5.04 | 0.041 |
| SL2-A70-682 | 6.8 | 2.82 | 3.99 | 3.18 | 2.91 | 3.92 | 3.60 | 0.025 |
| SL2-A20-103 | 10.0 | 1.51 | 2.13 | 5.89 | 5.41 | 6.90 | 6.32 | 0.087 |
| SL2-A40-103 | 10.0 | 1.77 | 2.50 | 3.75 | 3.44 | 4.47 | 4.10 | 0.063 |
| SL2-A70-103 | 10.0 | 2.30 | 3.26 | 2.65 | 2.43 | 3.27 | 3.00 | 0.037 |
| SL2-A20-153 | 15.0 | 1.08 | 1.53 | 4.80 | 4.40 | 5.62 | 5.15 | 0.170 |
| SL2-A40-153 | 15.0 | 1.62 | 2.30 | 3.16 | 2.90 | 3.76 | 3.45 | 0.075 |
| SL2-A70-153 | 15.0 | 1.83 | 2.58 | 2.12 | 1.94 | 2.62 | 2.40 | 0.059 |
| SL2-A20-223 | 22.0 | 0.87 | 1.23 | 3.93 | 3.60 | 4.60 | 4.22 | 0.262 |
| SL2-A40-223 | 22.0 | 1.17 | 1.66 | 2.61 | 2.39 | 3.11 | 2.85 | 0.145 |
| SL2-A70-223 | 22.0 | 1.67 | 2.36 | 1.76 | 1.62 | 2.18 | 2.00 | 0.071 |
| SL2-A20-333 | 33.0 | 0.70 | 0.99 | 3.16 | 2.90 | 3.70 | 3.39 | 0.403 |
| SL2-A40-333 | 33.0 | 1.04 | 1.47 | 2.07 | 1.90 | 2.46 | 2.26 | 0.183 |
| SL2-A70-333 | 33.0 | 1.51 | 2.13 | 1.44 | 1.32 | 1.78 | 1.64 | 0.087 |
| SL2-A20-473 | 47.0 | 0.65 | 0.92 | 2.70 | 2.48 | 3.16 | 2.90 | 0.472 |
| SL2-A40-473 | 47.0 | 0.86 | 1.21 | 1.76 | 1.62 | 2.10 | 1.93 | 0.270 |
| SL2-A70-473 | 47.0 | 1.10 | 1.56 | 1.22 | 1.12 | 1.51 | 1.38 | 0.164 |
| SL2-A20-683 | 68.0 | 0.46 | 0.66 | 2.24 | 2.05 | 2.62 | 2.40 | 0.920 |
| SL2-A40-683 | 68.0 | 0.70 | 0.99 | 1.46 | 1.34 | 1.74 | 1.60 | 0.403 |
| SL2-A70-683 | 68.0 | 1.01 | 1.43 | 1.02 | 0.94 | 1.27 | 1.16 | 0.195 |
| SL2-A20-104 | 100.0 | 0.42 | 0.59 | 1.83 | 1.67 | 2.14 | 1.96 | 1.126 |
| SL2-A40-104 | 100.0 | 0.64 | 0.90 | 1.20 | 1.10 | 1.43 | 1.31 | 0.492 |
| SL2-A70-104 | 100.0 | 0.73 | 1.03 | 0.84 | 0.77 | 1.03 | 0.95 | 0.374 |
| SL2-A20-154 | 150.0 | 0.34 | 0.48 | 1.49 | 1.37 | 1.74 | 1.60 | 1.746 |
| SL2-A40-154 | 150.0 | 0.45 | 0.64 | 0.98 | 0.90 | 1.17 | 1.07 | 0.967 |
| SL2-A70-154 | 150.0 | 0.66 | 0.94 | 0.69 | 0.63 | 0.85 | 0.78 | 0.453 |
| SL2-A20-224 | 220.0 | 0.27 | 0.39 | 1.23 | 1.13 | 1.44 | 1.33 | 2.643 |
| SL2-A40-224 | 220.0 | 0.37 | 0.52 | 0.81 | 0.74 | 0.97 | 0.89 | 1.485 |
| SL2-A70-224 | 220.0 | 0.53 | 0.75 | 0.57 | 0.52 | 0.70 | 0.64 | 0.699 |
| SL2-A20-334 | 330.0 | 0.22 | 0.32 | 1.01 | 0.93 | 1.19 | 1.09 | 3.979 |
| SL2-A40-334 | 330.0 | 0.33 | 0.47 | 0.66 | 0.60 | 0.79 | 0.72 | 1.826 |
| SL2-A70-334 | 330.0 | 0.43 | 0.60 | 0.46 | 0.42 | 0.57 | 0.52 | 1.094 |
| SL2-A40-474 | 470.0 | 0.27 | 0.38 | 0.56 | 0.51 | 0.66 | 0.61 | 2.719 |
| SL2-A70-474 | 470.0 | 0.35 | 0.49 | 0.39 | 0.36 | 0.48 | 0.44 | 1.646 |
| SL2-A40-684 | 680.0 | 0.22 | 0.31 | 0.46 | 0.42 | 0.55 | 0.50 | 4.041 |
| SL2-A70-684 | 680.0 | 0.32 | 0.45 | 0.32 | 0.29 | 0.40 | 0.36 | 1.987 |
| SL2-A40-105 | 1000.0 | 0.18 | 0.25 | 0.38 | 0.35 | 0.45 | 0.41 | 6.216 |
| SL2-A70-105 | 1000.0 | 0.26 | 0.36 | 0.26 | 0.24 | 0.33 | 0.30 | 3.021 |

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SL2 SERIES

Inductor Cross Reference For Voltage Regulator ICs

| IC MANUFACTURE | IC PART NUMBER | OUTPUT VOLTAGE / CURRENT | INDUCTOR PART NUMBER |
|---------------------------|--|--|---|
| LINEAR TECHNOLOGY | LT1073, 1173 LT1073, 1173 LT1109, 1110, 1111 LT1109, 1110, 1111 LTC1148 LTC1148 | 5V, -5V, 12V / 15 thru. 250mA 5V /50, 90, 300mA (step down) 5V, -5V, 12V / 15 thru. 300mA 5V /50, 90, 300mA (step down) 3.3 V / 1A 3.3V / 650mA | SL2-A40-153 thru. 473 SL2-A70-153 thru. 473 SL2-A40-153 thru. 473 SL2-A70-153 thru. 473 SL2-A70-683 SL2-A70-104 |
| MAXIM INTEGRATED PRODUCTS | MAX603, MAX4193 MAX631, 632, 633 MAX634, 635, 636, 637 MAX638 MAX639 MAX641, 642, 643 MAX654 thru. 659 MAX661 MAX714 thru. 716 MAX714 thru. 716 MAX717 thru. 721 MAX722, 723 MAX731, 752 MAX732, 733 MAX734 MAX735 MAX736, 737, 739, 759 MAX741 MAX743 MAX751, 756, 757 MAX777. 778. 779 MAX782 | 5V, 12V, 15V / 50mA 5V, 12V, 15V / 5-50mA 5V, 12V, 15V / 5-50mA 5V / 35-75mA 5V / 100mA 5V, 12V, 15V / 100-550mA 3v, 5V / 40-170mA 12V / 150mA -5V thru. -26V / -17 thru. -100mA -5V / -30mA 3V, 5V, 12V 3.3V, 5V & Negout 5V, 1.8-15V / 200mA 12V, 15V / 200, 125 mA 12V / 150mA -5V / 200mA -5V, -12V, -15V / -100 thru. -550mA 5V / 1.5A $\pm 12V, \pm 15V / \pm 125mA, \pm 100mA$ 3.3V / 200mA, 5V / 150mA 3V, 3.3V, 5V / 150mA 3.3V / 2.5A | SL2-A40-474 SL2-A40-104 thru. 474 SL2-A40-104 thru. 474 SL2-A70-154 thru. 474 SL2-A70-104, 154, 224 SL2-A20-103 thru. 104 SL2-A40-103 thru. 154 SL2-A40-473 SL2-A20-683 thru. 334 SL2-A40-473 SL2-A20-223 SL2-A20-223, 473 SL2-A40-223, 473 SL2-A40-473 SL2-A40-103, 153, 223 SL2-A20-103 SL2-A20-103, 333 SL2-A70-223 SL2-A20-104 SL2-A40-223 SL2-A40-223 SL2-A70-103 |
| MICRO LINEAR | ML4862 | 3.3V & 5V / 1A | SL2-A70-473 |
| SILICONIX | Si9150 | 3.3V, 5V / .75A | SL2-A70-473 |

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