

Leaded Power Inductors

Features

- The SL-XXXX-series power inductors have low DC resistance and large permissible DC current with high reliability.
- Magnetic shielded products are available for each series for consideration against radiation.
- The SL-series has high saturation magnetic-flux density and high efficiency



Applications

- For DC-DC converter, (Example: step-up or step-down)
- Suitable for use in power lines of:
 - Camcorder
 - LCD set
 - OA equipment
 - Notebook
 - Computer
 - PDA
 - Small size communication equipment

Part Number Systems

SL - 040 - C - 1R0 - K - 4P - LF

(1) (2) (3) (4) (5) (6) (7)

| | | | |
|-----|---------------------------------------------|-----|-------------------------------|
| (1) | Product series | (2) | Size |
| (3) | Core Code | (4) | Inductance Value: 1R0 = 1.0uH |
| (5) | Inductance Tolerance K = ±10%, M = ± 20% | (6) | 4P = 4 Pin or 2P = 2 Pin |
| | | (7) | ROHs Compliant |

Leaded Power Inductors

Shape And Dimensions

| TYPE | DIMENSIONS (MM) | | |
|-------------------------------|-----------------|--|--|
| SL-654C (22 μ H~1.0mH) | | | |
| SL-664C (22 μ H~1.0mH) | | | |
| SL-855C (10 μ H~10mH) | | | |
| SL-875C (10 μ H~10mH) | | | |
| SL-895C (10 μ H~47mH) | | | |
| SL-108C (10 μ H~1.0mH) | | | |
| SL-110C (10 μ H~1.0mH) | | | |

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| SL-XXXX-Series | | | ELECTRICAL CHARACTERISTICS | | | | | | | | | | | | | | |
|----------------|--------|-------------|----------------------------|------|------|-------|------|-------|-------|---------------------------------|------|------|------|------|------|------|------|
| Dash No. | L (uH) | Test Freq | Dc Resistance (W) Max. | | | | | | | Permissible DC Current (A) Max. | | | | | | | |
| | | | Size | | | | | | | Size | | | | | | | |
| | | | 654C | 664C | 855C | 875C | 895C | 108C | 110C | 654C | 664C | 855C | 875C | 895C | 108C | 110C | |
| 100 | 10 | 2.52 KHz | | | 0.07 | 0.05 | 0.04 | 0.027 | 0.022 | | | 2.50 | 2.90 | 2.60 | 4.50 | 5.30 | |
| 120 | 12 | | | | 0.08 | 0.06 | 0.04 | 0.031 | 0.023 | | | 2.40 | 2.50 | 2.60 | 4.10 | 4.90 | |
| 150 | 15 | | | | 0.09 | 0.07 | 0.05 | 0.036 | 0.026 | | | 2.10 | 2.20 | 2.10 | 3.70 | 4.40 | |
| 180 | 18 | | | | 0.10 | 0.08 | 0.05 | 0.049 | 0.033 | | | 2.00 | 1.90 | 2.00 | 3.40 | 4.00 | |
| 220 | 22 | | | 0.18 | 0.11 | 0.12 | 0.09 | 0.06 | 0.055 | 0.037 | 0.90 | 1.27 | 1.70 | 1.80 | 1.70 | 3.10 | 3.60 |
| 270 | 27 | | | 0.21 | 0.14 | 0.14 | 0.11 | 0.06 | 0.062 | 0.048 | 0.81 | 1.14 | 1.60 | 1.70 | 1.60 | 2.80 | 3.30 |
| 330 | 33 | | | 0.27 | 0.17 | 0.17 | 0.13 | 0.07 | 0.079 | 0.055 | 0.74 | 1.03 | 1.40 | 1.50 | 1.40 | 2.50 | 2.90 |
| 390 | 39 | | | 0.29 | 0.19 | 0.21 | 0.14 | 0.08 | 0.087 | 0.073 | 0.68 | 0.95 | 1.30 | 1.30 | 1.40 | 2.30 | 2.70 |
| 470 | 47 | | | 0.34 | 0.23 | 0.24 | 0.15 | 0.10 | 0.099 | 0.083 | 0.62 | 0.87 | 1.20 | 1.30 | 1.30 | 2.10 | 2.50 |
| 560 | 56 | | | 0.42 | 0.26 | 0.31 | 0.18 | 0.11 | 0.13 | 0.092 | 0.57 | 0.80 | 1.10 | 1.20 | 1.20 | 1.90 | 2.30 |
| 680 | 68 | | | 0.48 | 0.28 | 0.34 | 0.20 | 0.14 | 0.14 | 0.12 | 0.51 | 0.72 | 1.00 | 1.10 | 1.10 | 1.70 | 2.10 |
| 820 | 82 | | | 0.55 | 0.39 | 0.40 | 0.24 | 0.16 | 0.16 | 0.14 | 0.47 | 0.66 | 0.93 | 1.00 | 1.00 | 1.60 | 1.90 |
| 101 | 100 | | 1 KHz | 0.68 | 0.43 | 0.52 | 0.28 | 0.19 | 0.21 | 0.16 | 0.42 | 0.59 | 0.81 | 0.89 | 0.90 | 1.40 | 1.70 |
| 121 | 120 | | | 0.77 | 0.54 | 0.59 | 0.36 | 0.22 | 0.24 | 0.20 | 0.39 | 0.54 | 0.76 | 0.81 | 0.82 | 1.30 | 1.50 |
| 151 | 150 | | | 0.95 | 0.64 | 0.71 | 0.42 | 0.27 | 0.32 | 0.23 | 0.35 | 0.48 | 0.67 | 0.72 | 0.74 | 1.20 | 1.40 |
| 181 | 180 | 1.15 | | 0.74 | 0.89 | 0.57 | 0.31 | 0.35 | 0.31 | 0.32 | 0.44 | 0.62 | 0.66 | 0.71 | 1.10 | 1.30 | |
| 221 | 220 | 1.30 | | 0.96 | 1.01 | 0.630 | 0.38 | 0.45 | 0.34 | 0.29 | 0.40 | 0.54 | 0.57 | 0.64 | 0.96 | 1.10 | |
| 271 | 270 | 1.55 | | 1.12 | 1.28 | 0.88 | 0.53 | 0.61 | 0.4 | 0.26 | 0.36 | 0.49 | 0.51 | 0.57 | 0.87 | 1.00 | |
| 331 | 330 | 2.18 | | 1.48 | 1.47 | 1.05 | 0.61 | 0.69 | 0.52 | 0.23 | 0.33 | 0.44 | 0.46 | 0.51 | 0.79 | 0.93 | |
| 391 | 390 | 2.47 | | 1.66 | 1.37 | 1.17 | 0.69 | 0.78 | 0.65 | 0.21 | 0.30 | 0.41 | 0.44 | 0.48 | 0.72 | 0.86 | |
| 471 | 470 | 2.92 | | 0.91 | 1.95 | 1.34 | 0.89 | 1.00 | 0.71 | 0.2 | 0.27 | 0.38 | 0.41 | 0.43 | 0.66 | 0.78 | |
| 561 | 560 | 3.97 | | 2.30 | 2.83 | 1.72 | 1.01 | 1.20 | 1.00 | 0.18 | 0.25 | 0.35 | 0.36 | 0.4 | 0.60 | 0.71 | |
| 681 | 680 | 4.57 | | 2.67 | 3.25 | 1.96 | 1.18 | 1.40 | 1.10 | 0.16 | 0.23 | 0.32 | 0.33 | 0.35 | 0.55 | 0.65 | |
| 821 | 820 | 5.28 | | 3.10 | 3.82 | 2.56 | 1.57 | 1.80 | 1.30 | 0.15 | 0.21 | 0.31 | 0.30 | 0.32 | 0.50 | 0.59 | |
| 102 | 1000 | 7.06 | | 4.45 | 5.28 | 2.94 | 1.87 | 2.10 | 1.70 | 0.13 | 0.19 | 0.25 | 0.27 | 0.30 | 0.45 | 0.53 | |
| 122 | 1.2mH | | | | 6.03 | 4.04 | 2.10 | | | | | 0.23 | 0.24 | 0.27 | | | |
| 152 | 1.5mH | | | | 7.15 | 4.70 | 2.80 | | | | | 0.21 | 0.22 | 0.23 | | | |
| 182 | 1.8mH | | | 8.26 | 5.05 | 3.21 | | | | | 0.20 | 0.20 | 0.21 | | | | |
| 222 | 2.2mH | | | 11.1 | 6.25 | 4.21 | | | | | 0.18 | 0.18 | 0.19 | | | | |
| 272 | 2.7mH | | | 13.1 | 8.72 | 4.94 | | | | | 0.16 | 0.16 | 0.17 | | | | |
| 332 | 3.3mH | | | 15.9 | 10.6 | 6.16 | | | | | 0.14 | 0.15 | 0.15 | | | | |

* All specifications are subjected to change without prior notice

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| SL-XXXX-Series | | | ELECTRICAL CHARACTERISTICS | | | | | | | | | | | | | | |
|----------------|--------|-----------|----------------------------|------|------|------|-------|------|------|---------------------------------|------|------|-------|-------|-------|------|--|
| Dash No. | L (uH) | Test Freq | Dc Resistance (W) Max. | | | | | | | Permissible DC Current (A) Max. | | | | | | | |
| | | | Size | | | | | | | Size | | | | | | | |
| | | | 654C | 664C | 855C | 875C | 895C | 108C | 110C | 654C | 664C | 855C | 875C | 895C | 108C | 110C | |
| 392 | 3.9mH | 1 KHz | | | 18.0 | 14.2 | 6.84 | | | | | 0.13 | 0.14 | 0.14 | | | |
| 472 | 4.7mH | | | | 23.9 | 16.7 | 7.89 | | | | | | 0.12 | 0.12 | 0.13 | | |
| 562 | 5.6mH | | | | 26.8 | 18.7 | 11.50 | | | | | | 0.11 | 0.11 | 0.12 | | |
| 682 | 6.8mH | | | | 31.7 | 21.8 | 13.20 | | | | | | 0.098 | 0.10 | 0.11 | | |
| 822 | 8.2mH | | | | 46.5 | 28.7 | 15.20 | | | | | | 0.088 | 0.093 | 0.10 | | |
| 103 | 10mH | | | | 55.7 | 33.0 | 22.00 | | | | | | 0.081 | 0.084 | 0.089 | | |
| 123 | 12mH | | | | | | 25.00 | | | | | | | | 0.073 | | |
| 153 | 15mH | | | | | | 29.10 | | | | | | | | 0.068 | | |
| 183 | 18mH | | | | | | 38.90 | | | | | | | | 0.066 | | |
| 223 | 22mH | | | | | | 44.90 | | | | | | | | 0.059 | | |
| 273 | 27mH | | | | | | 55.70 | | | | | | | | 0.052 | | |
| 333 | 33mH | | | | | | 64.20 | | | | | | | | 0.048 | | |
| 393 | 39mH | | | | | | 74.20 | | | | | | | | 0.072 | | |
| 473 | 47mH | | | | | | 96.40 | | | | | | | | 0.038 | | |

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- ❖ Tolerance of Inductance: 1.0 ~ 8.2 uH = ± 20% (M)
1000 ~ 47,000 uH = ± 10% (K)
- ❖ The maximum permissible DC current is the DC current applied which causes 10% reduction of its initial inductance value, or the coil temperature to rise by 40°C (Ta = 20°C), whichever is lower.