

SMT Power Inductors - SLC7530 Series



The SLC series is designed for high-speed switch mode applications requiring high current handling capabilities. Its compact size and exceptionally low DC resistance make it ideal for use in notebook computers, mobile phones, and other handheld products.

These shielded inductors are available with a single conductor or with dual conductors. The dual conductor parts can be connected in series for higher inductance or in parallel for lower DCR and higher current ratings (up to 50 Amps).

Single Conductor

| Part number ¹ | L ±20% ² (μΗ) | DCR max ³ (mOhms) | SRF typ ⁴ (GHz) | Isat⁵ (A) | Irms ⁶ (A) |
|--------------------------|------------------------------------|---------------------------------|-------------------------------|--------------|--------------------------|
| SLC7530S-500MX_ | 0.050 | 0.13 | 3.80 | 50 | 40 |
| SLC7530S-640MX_ | 0.064 | 0.13 | 3.65 | 32 | 40 |
| SLC7530S-820MX_ | 0.082 | 0.13 | 3.75 | 22 | 40 |
| SLC7530S-101MX_ | 0.100 | 0.13 | 3.75 | 20 | 40 |

Dual Conductor

Leads connected in parallel

Leads connected in series

| Part number ¹ | L ±20% ² (μΗ) | DCR max ³ (mOhms) | SRF typ ⁴ (GHz) | Isat⁵ (A) | Irms ⁶ (A) | L ±20% ² (μΗ) | DCR max ³ (mOhms) | SRF typ ⁴ (GHz) | Isat⁵ (A) | Irms ⁶ (A) |
|--------------------------|------------------------------------|---------------------------------|-------------------------------|--------------|--------------------------|-------------------------|---------------------------------|-------------------------------|--------------|--------------------------|
| SLC7530D-500MX_ | 0.050 | 0.22 | 3.75 | 50 | 38 | 0.188 | 1.00 | 1.50 | 21 | 17 |
| SLC7530D-640MX_ | 0.064 | 0.22 | 3.65 | 32 | 38 | 0.272 | 1.00 | 1.30 | 14 | 17 |
| SLC7530D-820MX_ | 0.082 | 0.22 | 3.75 | 22 | 38 | 0.350 | 1.00 | 1.20 | 11 | 17 |
| SLC7530D-101MX_ | 0.100 | 0.22 | 3.75 | 20 | 38 | 0.400 | 1.00 | 0.45 | 8 | 17 |

1. When ordering, please specify packaging code:

SLC7530S-101MX C

Packaging: C = 7" machine-ready reel. EIA-481 embossed plastic tape (500 parts per full reel).

- **B** = Less than full reel. In tape, but not machine ready.
 - To have a leader and trailer added (\$25 charge), use code letter C instead.

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (1700 parts per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4284.

3. DCR is measured on a micro-ohmmeter.

- 4. SRF measured using an Agilent/HP 4191A or equivalent.
- 5. DC current at which the inductance drops 20% (typ) from its value without current.
- 6. Average current for a 40°C rise from 25°C ambient.
- 7. Operating and storage temperature range -40°C to +85°C.
- 8. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

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Specifications subject to change without notice. Please check our website for latest information. Document 366-1

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Single Conductor



Dual Conductor



Typical L vs Frequency

Single Conductor



Dual Conductor



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SMT Power Inductors - SLC7530 Series

Typical Temperature Rise vs Current



Dimensions – Single Conductor



Terminations: Tin over copper Tape and reel: 500/7" reel, 1700/13" reel 16 mm tape width For packaging data see Tape and Reel Specifications section.

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1C

Winding 1

2 C

C

0.311

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Temperature rise (from 25°C) 70 60 50 40 5300 pare 51 ted if 30 ଚ conn 20 10 0 10 20 30 40 50 0

Current (Arms)

Dimensions – Dual Conductor

Dual Conductor

80





60



A Parallel mode



Recommended Land Patterns

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04

Winding 2

03