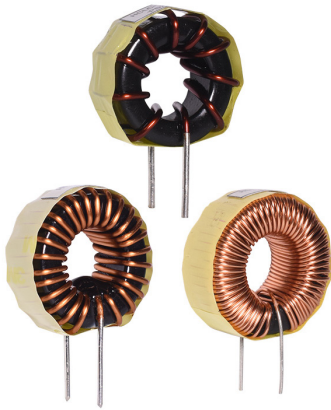


HCLC Series

High Current Low Core Loss Toroidal Inductors

HCLC Series of High Current Low Core Loss Toroidal Inductors are vertical PCB THT mounted magnetics with a broad inductance and current range. HCLC parts are constructed with a specific core material enabling them to exhibit higher energy storage, great temperature stability and a very low magnetostriction for reduced audible noise.



General Features

- Vertical PCB mounting for board layout optimization
- High efficiency with low core loss
- Distributed air gap for high energy storage
- Self-shielding for low magnetic radiation
- High current carrying capability

Specifications

- Inductance Range: 10 μH to 1000 μH
- Max. DC Resistance: 0.006 Ω to 0.216 Ω
- I-rated DC Current: 2.4 A to 14.3 A
- Operating Temperature Range: -55°C to +125°C

Applications

- SMPS
- EMI/RFI filtering
- Converters
- Inverters
- Amplifiers

Markets

- Telecom
- Medical
- Commercial
- Industrial
- Security

PRODUCT IDENTIFICATION

HCLC - 33 - 11.1

Type / Product Series

HCLC = High Current Low Core Loss Toroidal Inductors

I-rated DC Current

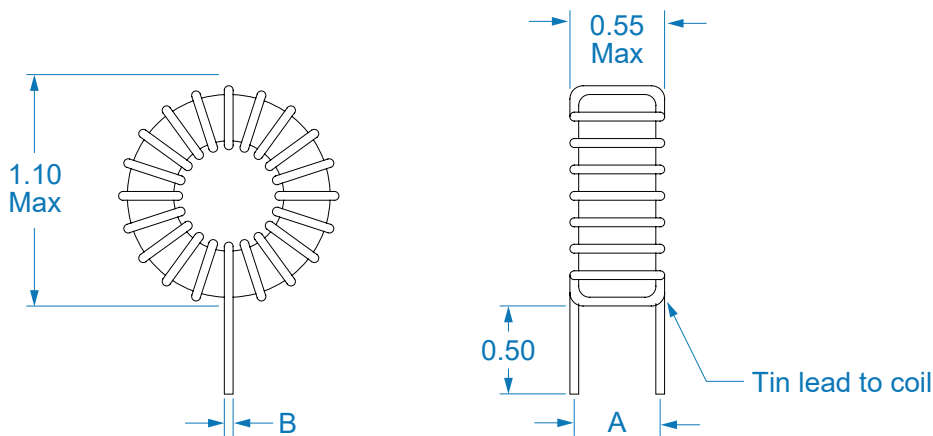
11.1 = 11.1 A

Inductance

33 = 33 μ H

MECHANICAL SPECIFICATIONS

Dimensions are in inches.



Custom versions available upon request.



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ELECTRO-MECHANICAL SPECIFICATIONS

| Part Number | L ± 15% @ 1 kHz (μH) | L ± 15% @ I-rated (μH) | DC Resistance Max. (Ω) | I-rated DC Current ¹ (A) | Dimension Nominal A (in) | Dimension Nominal B (in) |
|---------------|-------------------------------|---------------------------------|------------------------------|---|-----------------------------------|-----------------------------------|
| HCLC-10-14.3 | 10 | 6.0 | 0.006 | 14.3 | 0.47 | 0.053 |
| HCLC-12-14.2 | 12 | 6.9 | 0.006 | 14.2 | 0.47 | 0.053 |
| HCLC-15-13.6 | 15 | 8.3 | 0.007 | 13.6 | 0.47 | 0.053 |
| HCLC-18-13.1 | 18 | 9.7 | 0.007 | 13.1 | 0.47 | 0.053 |
| HCLC-22-12.6 | 22 | 11.5 | 0.008 | 12.6 | 0.47 | 0.053 |
| HCLC-27-11.8 | 27 | 13.5 | 0.009 | 11.8 | 0.47 | 0.053 |
| HCLC-33-11.1 | 33 | 15.7 | 0.010 | 11.1 | 0.47 | 0.053 |
| HCLC-39-10.8 | 39 | 18.1 | 0.011 | 10.8 | 0.47 | 0.053 |
| HCLC-47-10.3 | 47 | 20.9 | 0.012 | 10.3 | 0.47 | 0.053 |
| HCLC-56-9.8 | 56 | 23.9 | 0.013 | 9.8 | 0.47 | 0.053 |
| HCLC-68-7.6 | 68 | 33.9 | 0.022 | 7.6 | 0.45 | 0.042 |
| HCLC-82-7.1 | 82 | 39.0 | 0.024 | 7.1 | 0.45 | 0.042 |
| HCLC-100-6.8 | 100 | 45.6 | 0.027 | 6.8 | 0.45 | 0.042 |
| HCLC-120-5.1 | 120 | 63.4 | 0.047 | 5.1 | 0.43 | 0.034 |
| HCLC-150-4.9 | 150 | 76.0 | 0.052 | 4.9 | 0.43 | 0.034 |
| HCLC-180-4.7 | 180 | 88.5 | 0.057 | 4.7 | 0.43 | 0.034 |
| HCLC-220-4.4 | 220 | 103.1 | 0.063 | 4.4 | 0.43 | 0.034 |
| HCLC-270-4.2 | 270 | 121.1 | 0.070 | 4.2 | 0.43 | 0.034 |
| HCLC-330-4.0 | 330 | 141.9 | 0.077 | 4.0 | 0.43 | 0.034 |
| HCLC-390-3.8 | 390 | 161.2 | 0.084 | 3.8 | 0.43 | 0.034 |
| HCLC-470-3.7 | 470 | 185.7 | 0.092 | 3.7 | 0.43 | 0.034 |
| HCLC-560-3.5 | 560 | 212.0 | 0.101 | 3.5 | 0.43 | 0.034 |
| HCLC-680-2.7 | 680 | 307.6 | 0.176 | 2.7 | 0.47 | 0.027 |
| HCLC-820-2.5 | 820 | 355.5 | 0.194 | 2.5 | 0.47 | 0.027 |
| HCLC-1000-2.4 | 1000 | 412.5 | 0.216 | 2.4 | 0.47 | 0.027 |

¹ The current causing 30°C max. temperature rise.

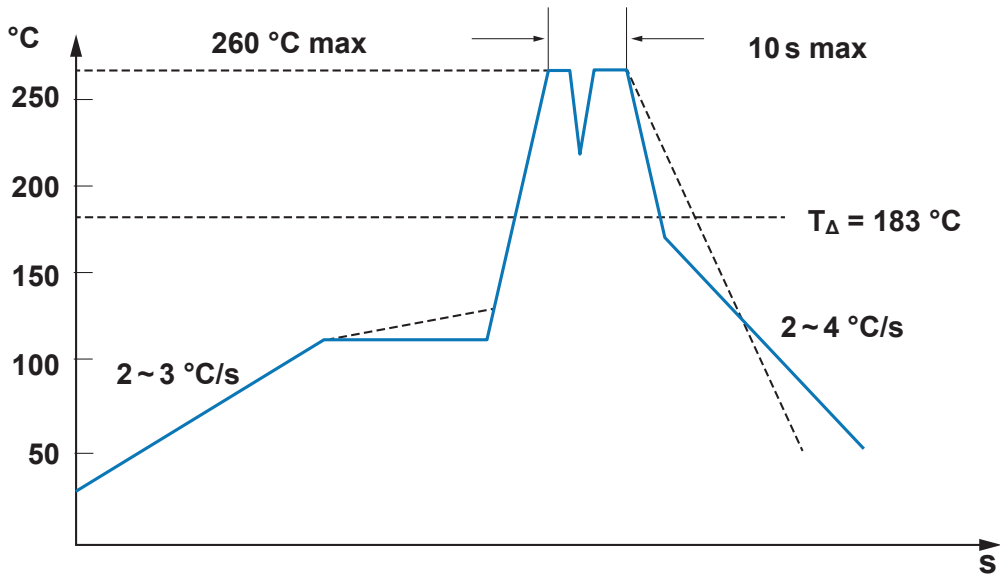
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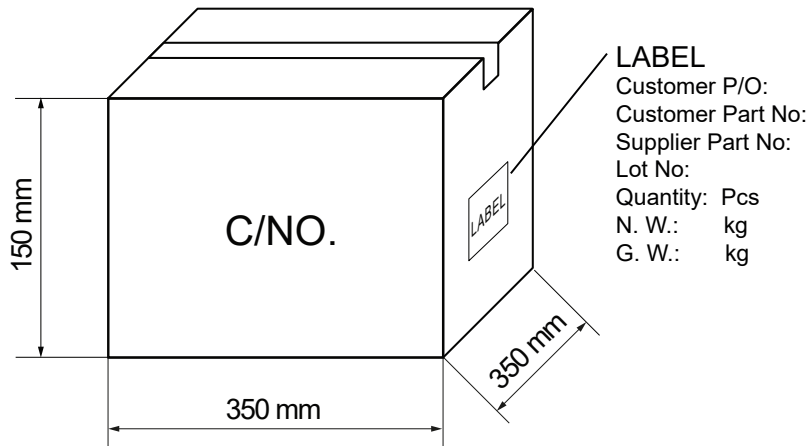
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RECOMMENDED WAVE SOLDERING CONDITIONS



- Note**
 Product soldering processing conditions and set methods may vary due to differences between various manufactures and their equipment. Adjustments are to be made accordingly.

PACKAGING SPECIFICATIONS



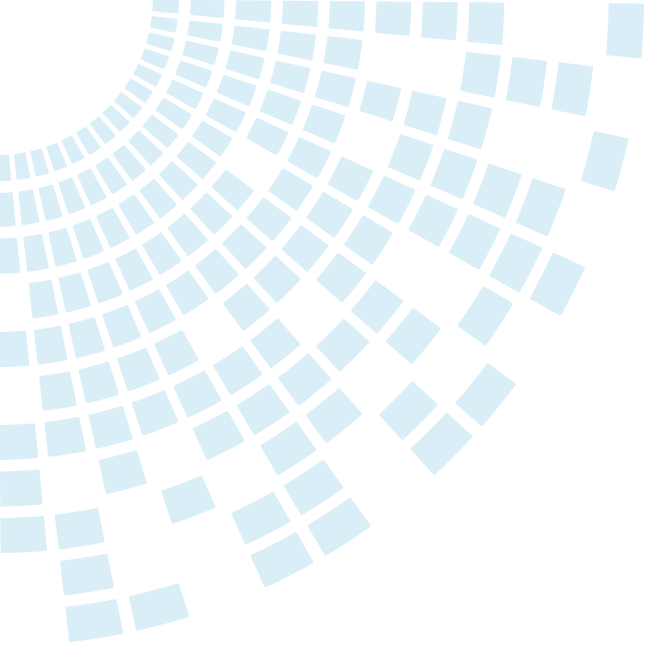
| Series | Packaging Quantity (pcs) | | |
|--------|--------------------------|------------------|---------------------------|
| | per Tray | Trays per Carton | Total Quantity per Carton |
| HCLC | 70 | 7 | 490 |

Custom versions available upon request.



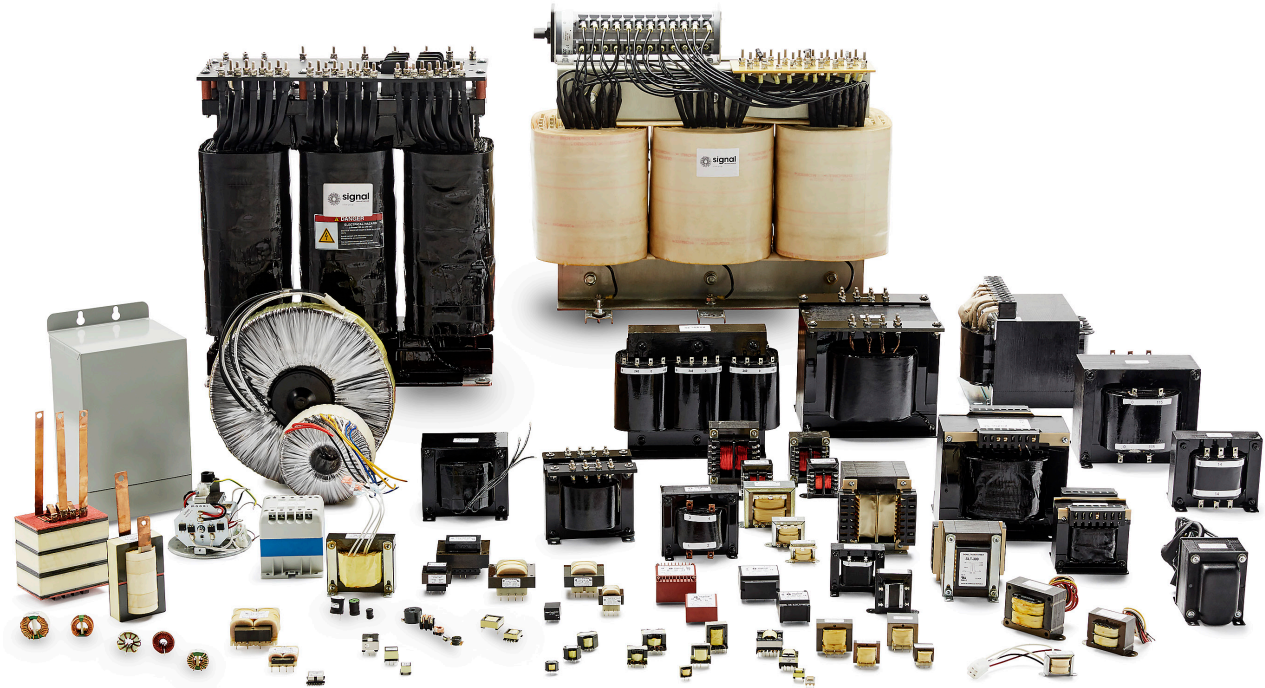
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About Signal Transformer

Signal Transformer is known as the world's leader of wire wound magnetic solutions since 1959. With over 50 years of experience manufacturing transformers, chokes, inductors and custom or modified standard products. Signal offers not only the most comprehensive line of certified standard power conversion products, with our vast engineering, manufacturing and regulatory resources; Signal Transformer excels in the design and manufacturer of cost effective, specialized platforms.



**For more information,
please contact us:**

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