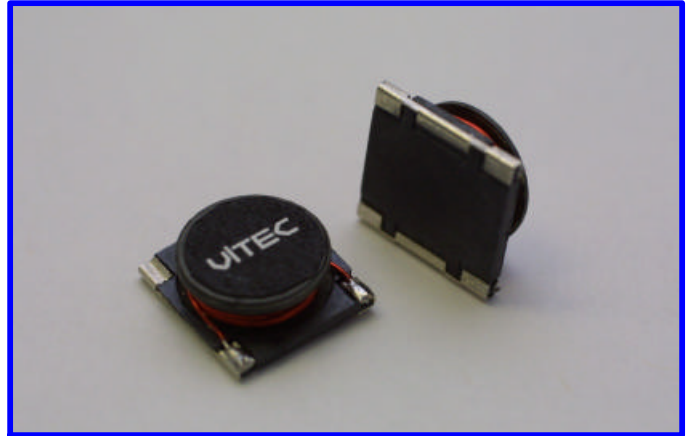


Surface Mount Power Inductor

Designed for DC/DC Converters

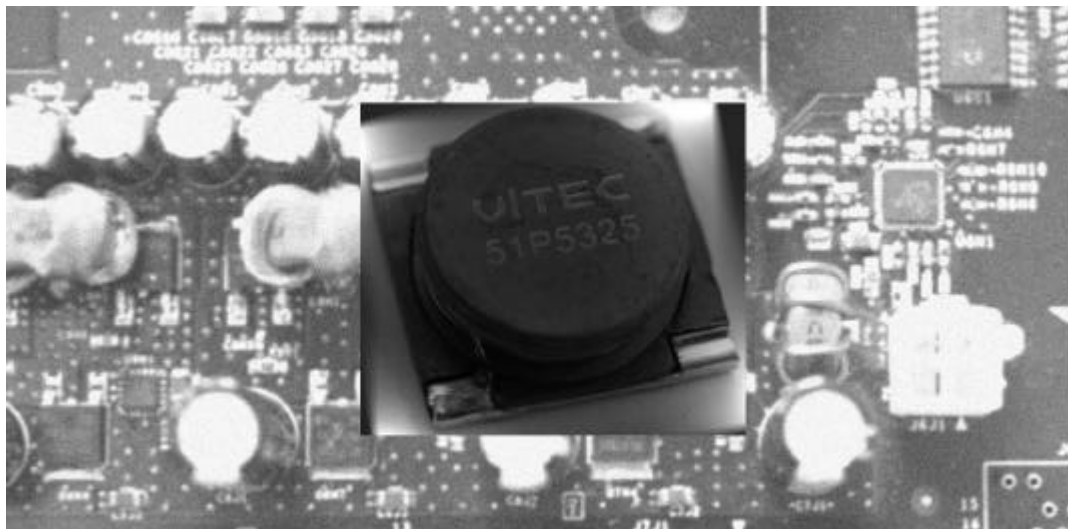
FEATURES

- Extended operating range of -35 to 135°C.
- Peak current handling of 18 Amps.
- 1 MHz operating frequency.
- Robust package capable of handling aggressive reflow soldering process.
- Low profile package suitable for portable applications.
- All materials meet UL94V-0 flammability standard.



APPLICATIONS

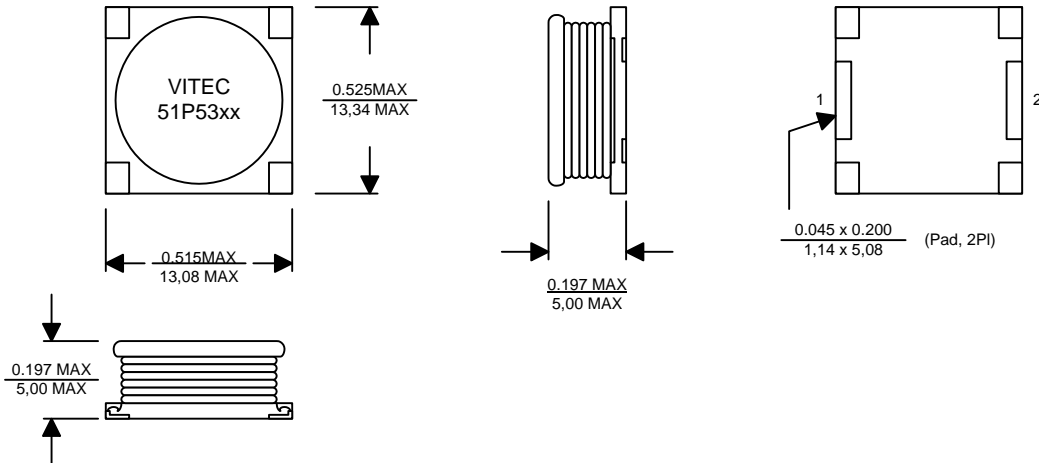
- DC to DC converters where high energy storage combined with low DCR is a requirement.
- Hard Disk Drives.
- Notebook computers.
- Portable handheld devices such as remote controls, mobile phones, handheld web devices, digital cameras and PDAs.
- Battery charging circuits.
- EMI filters.
- General application requiring a high performance, space efficient inductor.
- Factory automation.
- Test equipment.
- Battery powered and low voltage converters.
- Switch mode power supplies.



Surface Mount Power Inductor

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PACKAGE

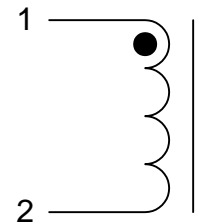


Dimensions: Inches/mm. Tolerances: +/- 0.010"/0,25mm unless otherwise noted

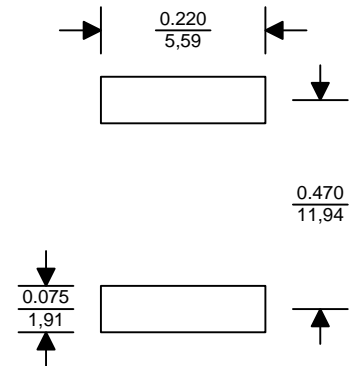
ELECTRICAL CHARACTERISTICS @ +25°C

| Part Number | LP @ I _{PEAK} | DCR | *I _{PEAK} | I _{RMS} |
|-------------|------------------------|---------|--------------------|------------------|
| | uH | mOhm | Amp | Amp |
| | +/- 20% | MAX | NOM | NOM |
| 51P5310 | 1.05 | 5.50 | 17.70 | 12.20 |
| 51P5311 | 1.90 | 7.50 | 12.90 | 9.60 |
| 51P5312 | 2.80 | 9.80 | 10.50 | 8.10 |
| 51P5313 | 3.40 | 9.60 | 9.10 | 7.60 |
| 51P5314 | 4.60 | 15.50 | 7.80 | 6.50 |
| 51P5315 | 6.80 | 22.00 | 6.60 | 5.10 |
| 51P5316 | 10.20 | 33.00 | 5.40 | 4.30 |
| 51P5317 | 15.20 | 47.00 | 4.40 | 3.60 |
| 51P5318 | 22.00 | 61.00 | 3.70 | 3.30 |
| 51P5319 | 32.00 | 90.00 | 2.90 | 2.50 |
| 51P5320 | 46.00 | 148.00 | 2.40 | 2.10 |
| 51P5321 | 65.00 | 166.00 | 2.00 | 1.80 |
| 51P5322 | 100.00 | 262.00 | 1.70 | 1.40 |
| 51P5323 | 152.00 | 410.00 | 1.30 | 1.20 |
| 51P5324 | 214.00 | 557.00 | 1.10 | 1.00 |
| 51P5325 | 320.00 | 880.00 | 0.90 | 0.90 |
| 51P5326 | 450.00 | 1230.00 | 0.80 | 0.70 |
| 51P5327 | 645.00 | 1660.00 | 0.60 | 0.60 |
| 51P5328 | 1030.00 | 2680.00 | 0.50 | 0.50 |
| 51P5329 | 1510.00 | 4020.00 | 0.40 | 0.40 |

SCHEMATICS



SUGGESTED PCB LAYOUT



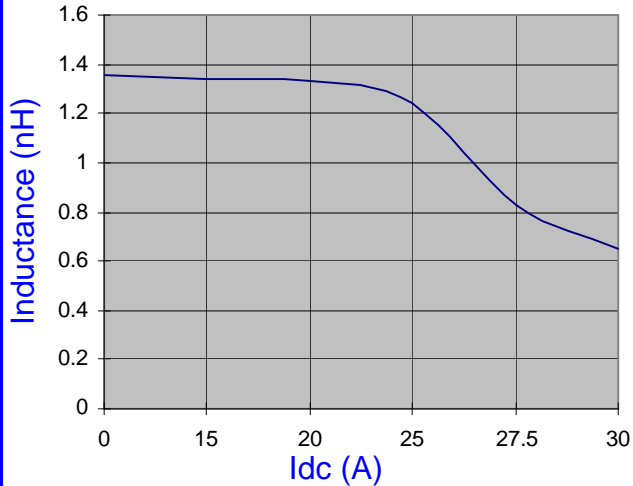
Drawing NOT to scale

Variations to standard product offering is also available. Please contact factory.

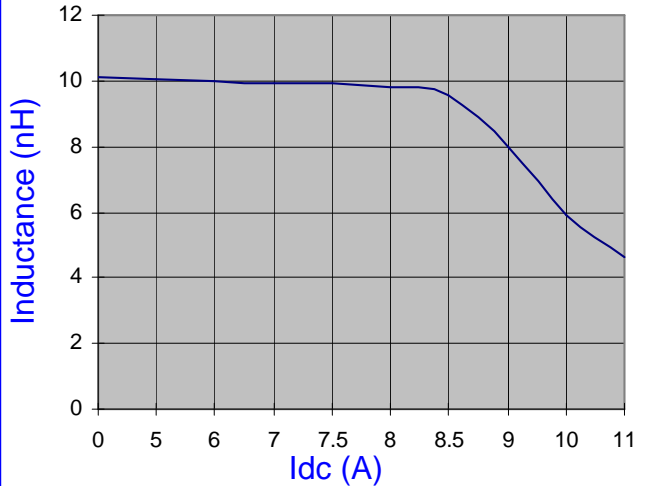
Surface Mount Power Inductor

Designed for DC/DC Converters

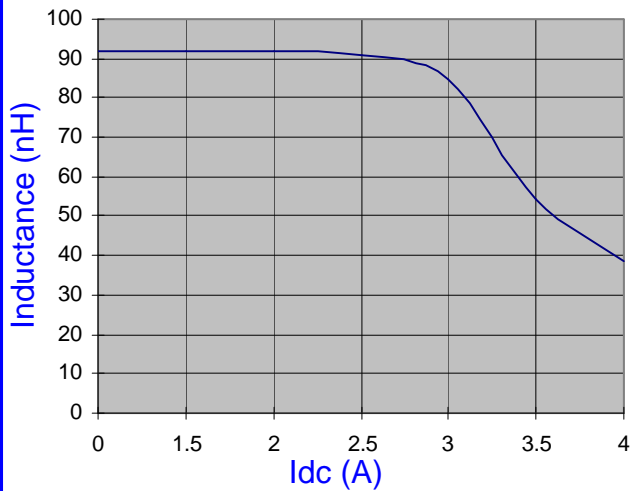
51P5310 Inductance vs. I_{dc}



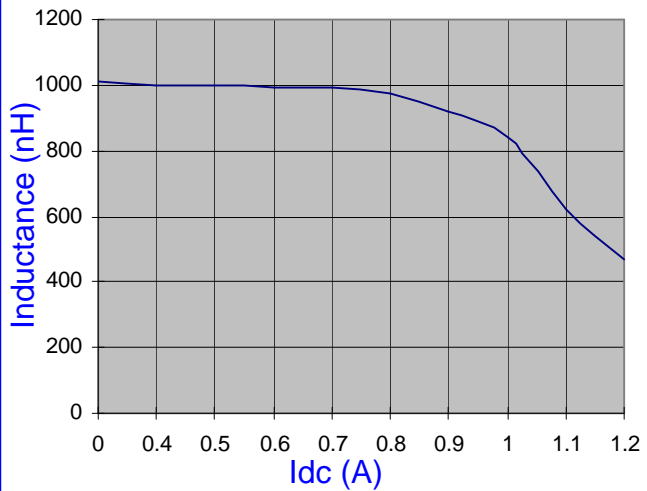
51P5316 Inductance vs. I_{dc}



51P5322 Inductance vs. I_{dc}



51P5328 Inductance vs. I_{dc}



NOTES

ENVIRONMENTAL & RELIABILITY DATA

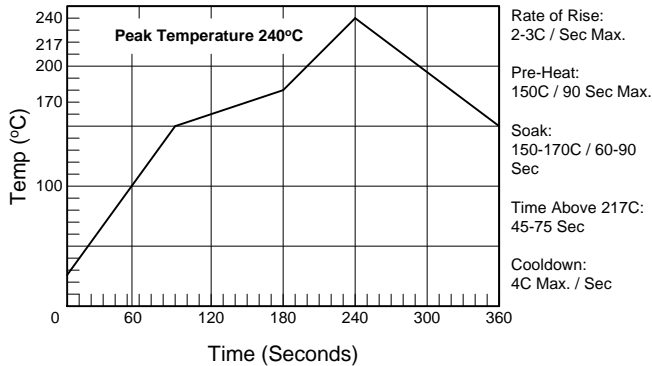
Storage Temperature: -40C to +125C
Operating Temperature: -40C to +125C
Resistance to Solder Reflow: 3 passes thru. +235C for 30 seconds minimum

Marking permanency: Tested per JESD22-B107-A
Solderability: Tested per MIL-STD-750D
Life Test: Tested per MIL-STD-202F, Method 108A
Thermal Cycle: Tested per JESD22-B104-B, Test Condition G

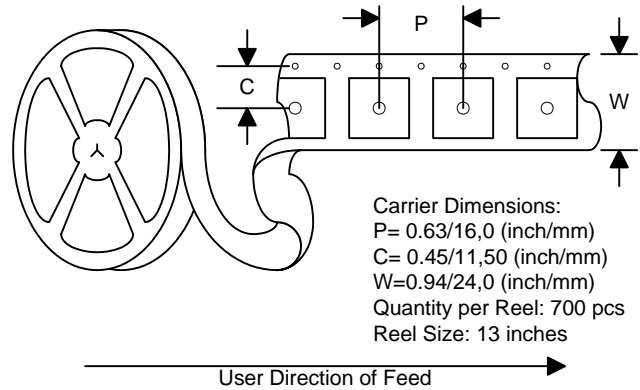
Surface Mount Power Inductor

Designed for DC/DC Converters

IR Profile



Tape and Reel



ABOUT US

Vitec Electronics Corporation, founded in 1986, is a worldwide leader in the design, manufacture and sale of magnetic solutions. Vitec's market focus includes the power, power conditioning, telecom, networking, communications and computing. Vitec has also established strong alliances with chip manufacturers whereby magnetic solutions are designed in conjunction with unique silicon requirements and are offered as reference designs by the chip companies.

With its Corporate Headquarters and Research & Development center located in Carlsbad, California, and its state of the art manufacturing facility and material sourcing in China, Vitec is uniquely positioned to supply the latest technology at the lowest cost. Vitec offers both standard and custom product design capabilities with all of its facilities being ISO certified.

QUALITY POLICY

Vitec will provide products and services that meet or exceed our Customer's requirements, conform to company policies and standards, and exhibit continuously improving levels of Quality.

COMMITMENT

VITEC Electronics empowers each of its employees by providing a business environment that encourages a commitment to excellence, a sense of ownership and personal accountability to all Vitec Customers.

Competitive Pricing, Quality Products, and On Time Deliveries are expected from today's World Class Magnetics Suppliers. The high standards of today's customer are strengthening the dedication and commitment of VITEC Electronics to provide Total Customer Service.

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