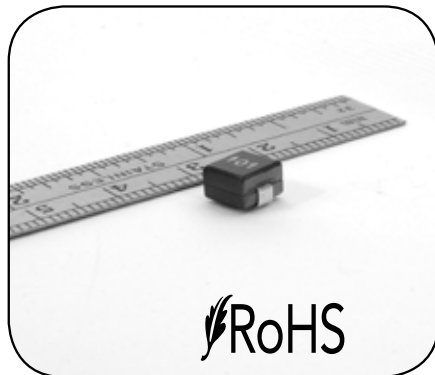


LP02-1 Series VRM Inductor



Features

- Design verified by leading IC manufacturers
- High saturation current of 85A
- Designed for frequencies up to 1MHz
- Suitable for pick and place applications
- Tighter DCR tolerances available. Contact ICE for additional details

Applications

- Voltage Regulator Modules (VRMs)
- High Frequency, High Current Switching Power Supplies
- Synchronous Buck DC/DC Converters

Packaging Reel Diameter: 13", Reel Width: 16mm, Pieces Per Reel: 1,000

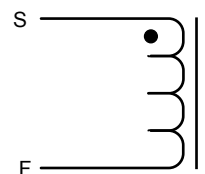
Mechanical



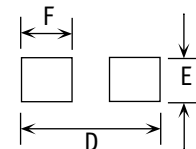
Dimensions

Part Number	A	B	C	D	E	F
LP02-XXX-1S	7.2mm	6.5mm	5.2mm	7.7mm	2.5mm	2.8mm
LP02-XXX-1	7.0mm	6.5mm	5.0mm	7.5mm	2.5mm	2.8mm

Schematic



Recommended PCB Layout



Electrical Specifications

Part Number	Inductance ¹ (nH, nom.)	DCR nom. (mΩ)	I _{sat} ² (A)	I _{dc} ³ (A)
LP02-500-1S	50	0.22	85	50
LP02-800-1S	85	0.22	55	50
LP02-101-1	95	0.34	40	42
LP02-141-1	140	0.34	35	42
LP02-181-1	180	0.34	25	42
LP02-251-1	250	0.34	18	42

1. Tested @ 1MHz, 0.1Vrms.
2. Inductance drops 15% at rated I_{sat}.
3. DC current that causes a 40°C temperature rise. PCB layout, trace thickness and width, airflow and proximity to other devices will effect the temperature rise.
4. Electrical specifications at 25°C.
5. Operating temperature range: -40°C to +130°C.
6. Meets UL 94V-0.
7. Test equipment used includes HP4194A Impedance Analyzer, GPR-1210 HDD DC Power Supply, and CH502A Ohmmeter.