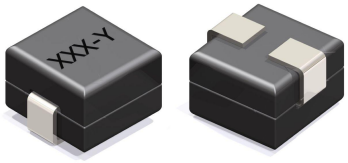
LP02-1 Series

High Current, Low Inductance, One Turn Inductors



- **Height: 5.2 mm *(Max)***
- **Footprint: 7.2 mm x 6.5 mm *(Max)***
- **I_{SAT} Current Rating: Up to 85A**
- **Frequency Range: Up to 1MHz**
- **Suitable for Pick & Place Applications**
- **Design Verified by Leading IC Manufacturers**

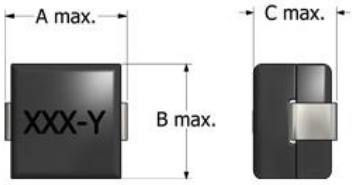
APPLICATIONS

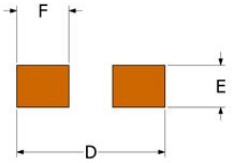
Voltage Regulation Modules
High Frequency, High Current Switching Power Supplies
Synchronous Buck DC/DC Converters

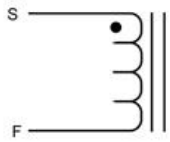
PACKAGING

Reel Diameter: 13”
Reel Width: 16 mm
Pieces/Reel: 1000

Mechanical Drawing	Recommended PCB Layout	Schematic







Part Number	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)
LP02-XXX-1S	7.2	6.5	5.2	7.7	2.5	3.0
LP02-XXX-1	7.0	6.5	5.0	7.5	2.5	3.0

Electrical Specifications @ 25°C - Operating Temperature Range [1]: -40°C to +130°C				
Part Number	Inductance, L_S [2] *(nH, ±15%)*	DCR [3] *(mΩ, ±10%)*	I_{SAT} [4] *(A_{DC})*	I_{DC} [5] *(A_{DC})*
LP02-500-1S	50	0.22	85	50
LP02-800-1S	85	0.22	55	50
LP02-101-1	95	0.32	40	42
LP02-141-1	140	0.32	35	42
LP02-181-1	180	0.32	25	42
LP02-251-1	250	0.32	18	42

1. **Operating Temp. Range:** The combination of ambient temperature and temperature rise.
2. **Inductance:** Tested at 1MHz, 0.1 V_{RMS}
3. **Tighter DCR tolerances available. Contact ICE for more details.**
4. **I_{SAT}:** DC Current through the winding to cause a 15% (Nom) drop in inductance.
5. **I_{DC}:** DC Current through the winding to cause 40°C temperature rise at 25°C ambient. PCB layout, trace thickness and width, airflow and proximity to other devices will affect the temperature rise.

RoHS COMPLIANT
CUSTOM SOLUTIONS AVAILABLE

Specifications subject to change without prior notice.