COILTRONICS®

COOPER Bussmann

FLAT-PAC™ 3
Low Profile Inductors

Description

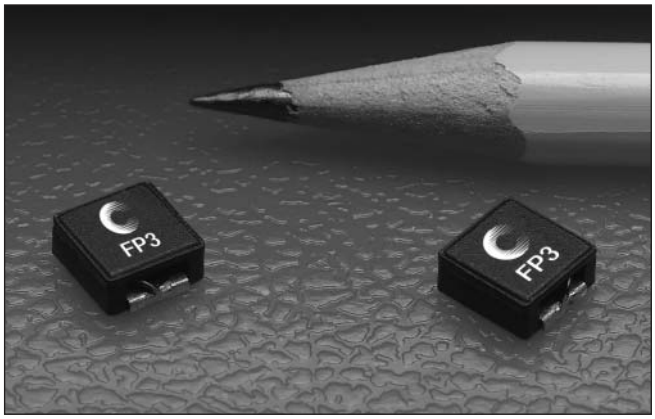
- 155C maximum total temperature operation
- Low profile high current inductors
- Inductance range 0.1uh to 15uh
- Design utilizes high temperature powder iron material with a non-organic binder to eliminate thermal aging
- Current rating up to 34.7Adc (Higher peak currents may be attained with a greater rolloff, see rolloff curve)
- Frequency range up to 2MHz

Applications

- Computers and portable power devices
- Energy storage applications
- DC-DC converters
- Input - Output filer application

Environmental Data

- Storage temperature range: -40C to +155C
- Operating ambient temperature range: -40C to +155C (range is application specific).
- Infrared reflow temperature: +260C for 10 seconds maximum



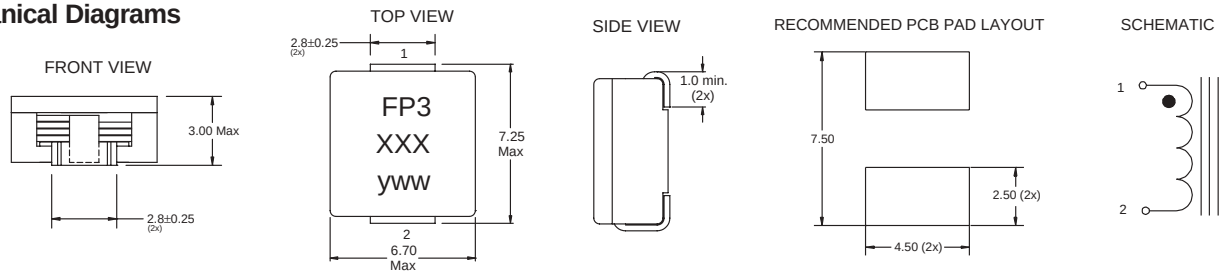
Packaging

- Units supplied in tape and reel packaging. Reel quantity = 1,700 parts per reel.

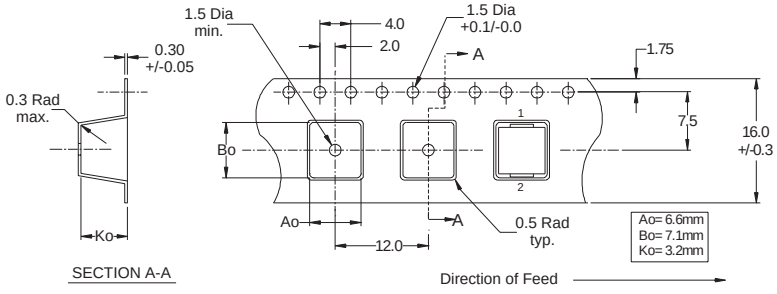
Part Number	Rated Inductance µH	OCL (1) µH ± 15%	Irms (2) Amperes	Isat (3) Amperes Approx. 10%	Isat (4) Amperes Approx. 15%	DCR mOhms @ 20°C (Max.)	K-factor (5)
FP3-R10	0.10	0.10	19.0	27	34.7	1.21	803
FP3-R20	0.20	0.22	15.3	16	20.8	1.88	482
FP3-R47	0.47	0.44	10.9	11.6	14.9	3.67	344
FP3-R68	0.68	0.72	9.72	9.0	11.6	4.63	268
FP3-1R0	1.00	1.10	6.26	7.4	9.5	11.2	219
FP3-1R5	1.50	1.50	5.78	6.2	8.0	13.1	185
FP3-2R0	2.00	2.00	5.40	5.4	6.9	15.0	161
FP3-3R3	3.30	3.20	3.63	4.3	5.5	30.0	127
FP3-4R7	4.70	4.70	3.23	3.5	4.2	40.0	105
FP3-8R2	8.20	8.5	2.91	2.6	3.4	74.0	78
FP3-150	15.0	14.9	2.22	2.0	2.5	127	59

1) OCL (Open Circuit Inductance) Test parameters: 100kHz, 0.1Vrms, 0.0Adc
2) DC current for an approximate ΔT of 40°C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow, and proximity of other heat generating components will affect the temperature rise. It is recommended that the temperature of the part not exceed 155°C under worst case operating conditions verified in the end application.
3) Isat Amperes Peak for approximately 10% rolloff @ 20°C
4) Isat Amperes Peak for approximately 15% rolloff @ 20°C
5) K-factor: Used to determine B p-p for core loss (see graph). B p-p =K*L*ΔI
B p-p:(Gauss), K: (K factor from table), L: (Inductance in uH), ΔI (Peak to peak ripple current in Amps).

Mechanical Diagrams

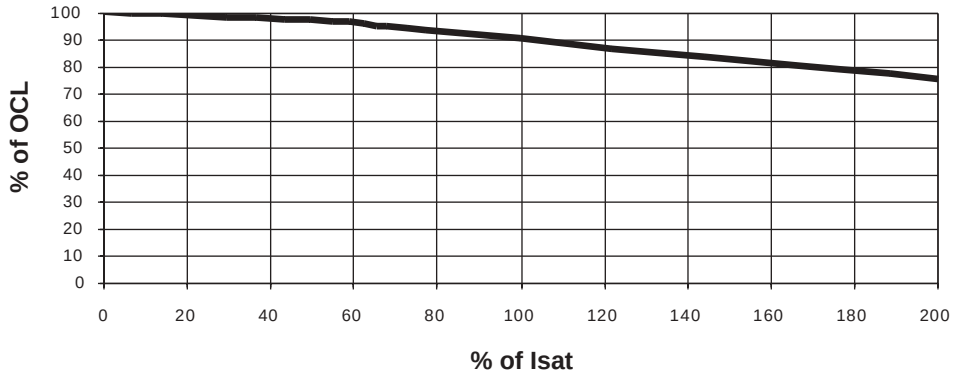


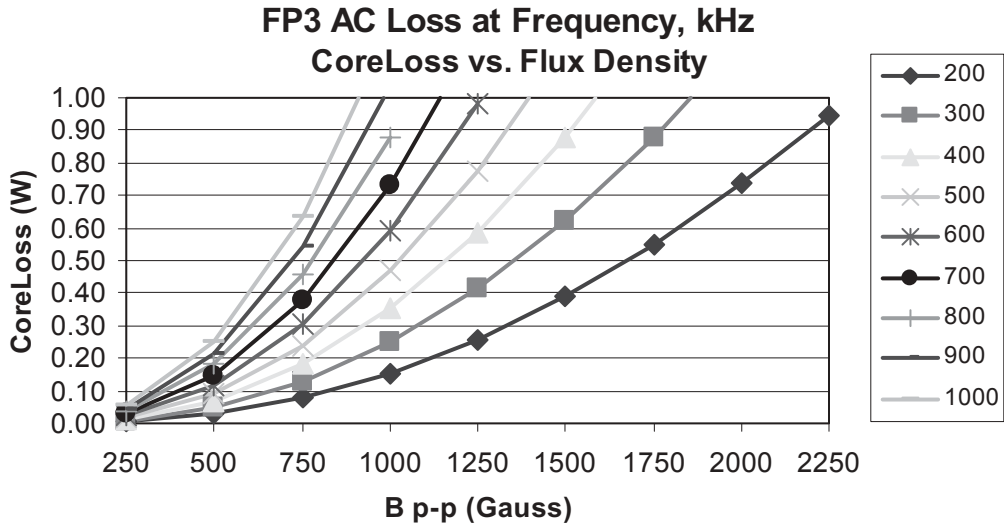
Packaging Information

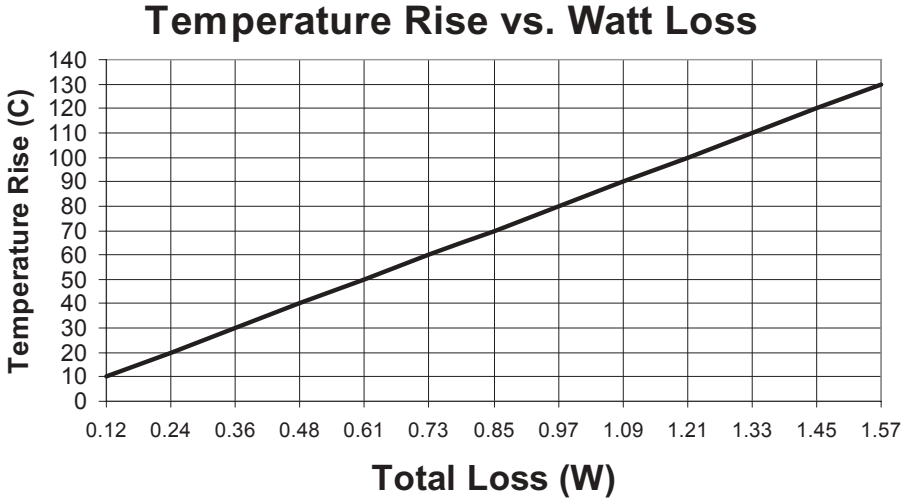


Dimensions in Millimeters

Inductance vs Saturation Current







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