COILTRONICS®

COOPER Bussmann

FLAT-PAC™ Low Profile Inductors (Surface Mount)

Description

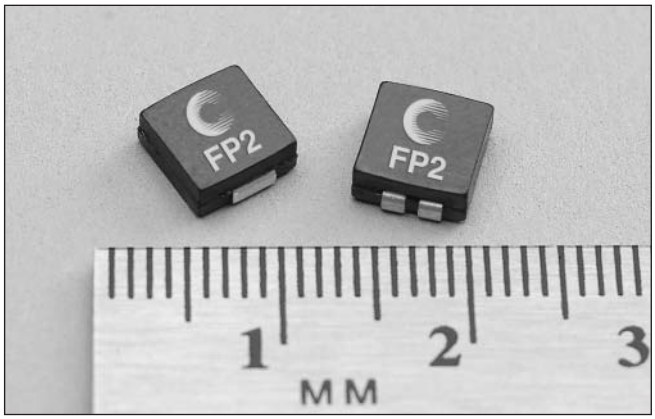
- 125C maximum total temperature operation
- Surface mount inductors designed for higher speed switch mode applications requiring lower inductance and high current
- Dual conductors allow for low inductance and high current or high inductance and lower current
- Inductance range from .047uH to 0.480uH
- Current range up to 42 Amps
- Meets UL 94V-0 flammability standard
- RoHS Compliant (-R option)

Applications

- Next generation microprocessors

Environmental Data

- Storage temperature range: -40C to +125C
- Operating ambient temperature range: -40C to +125C (range is application specific).
- Infrared reflow temperature: +260C for 10 seconds max.



Packaging

- Supplied in tape and reel packaging, 1700 (FP2S and FP2D) and 950 (FP2S-200 and FP2V-XXX) per reel

OPTION CODE	
Option Code	**Description**
-R	RoHS compliant version

Parallel Mode							
Part Number	**Inductance µH (rated)**	**OCL(1) µH± 15%**	**I RMS(2) Amps**	**I SAT(3) Amps**	**DCR(4) Ω nom.**	**Height**	**Volt-µ Sec (VµS) ref.(5)**
Single Conductor							
FP2-S047	0.047	0.047	39.0	42.0	0.00024	3.00	0.75
FP2-S068	0.068	0.068	39.0	32.0	0.00024	3.00	0.75
FP2-S082	0.082	0.082	39.0	26.0	0.00024	3.00	0.75
FP2-S100	0.100	0.100	39.0	22.0	0.00024	3.00	0.75
FP2-S120	0.120	0.120	39.0	18.0	0.00024	3.00	0.75
FP2-S200	0.200	0.200	37.0	19.0	0.00028	5.00	0.99
FP2-V050	0.050	0.050	37.0	70.0	0.00028	5.00	0.99
FP2-V100	0.100	0.100	37.0	30.0	0.00028	5.00	0.99
FP2-V150	0.150	0.150	37.0	25.5	0.00028	5.00	0.99
Double Conductor							
FP2-D047	0.047	0.047	37.0	42.0	0.00026	3.00	0.75
FP2-D068	0.068	0.068	37.0	32.0	0.00026	3.00	0.75
FP2-D082	0.082	0.082	37.0	26.0	0.00026	3.00	0.75
FP2-D100	0.100	0.100	37.0	22.0	0.00026	3.00	0.75
FP2-D120	0.120	0.120	37.0	18.0	0.00026	3.00	0.75
Series Mode							
Part Number	**Inductance µH ref. (rated)**	**OCL(1) µH ref.**	**I RMS(2) Amps**	**I SAT(3) Amps**	**DCR(4) Ω ref.**	**Height**	**Volt-µ(5) Sec (VµS) ref.**
Double Conductor							
FP2-D047	0.188	0.188	16.0	21.0	0.0013	3.00	1.50
FP2-D068	0.272	0.272	16.0	16.0	0.0013	3.00	1.50
FP2-D082	0.328	0.328	16.0	13.0	0.0013	3.00	1.50
FP2-D100	0.400	0.400	16.0	11.0	0.0013	3.00	1.50
FP2-D120	0.480	0.480	16.0	9.0	0.0013	3.00	1.50

Notes: (1) Open Circuit Inductance Test Parameters: 1MHz, .100Vrms, 0.0Adc.
(2) RMS current for an approximate ΔT of 40°C without core loss. It is recommended that the temperature of the part not exceed 125°C.
(3) Peak current for approximately 30% rolloff at 20°C.
(4) DCR limits 20°C.
(5) Applied Volt-Time product (V-µS) across the inductor. This value represents the applied V-µS at 500KHz necessary to generate a core loss equal to 10% of the total losses for 40°C temperature rise.

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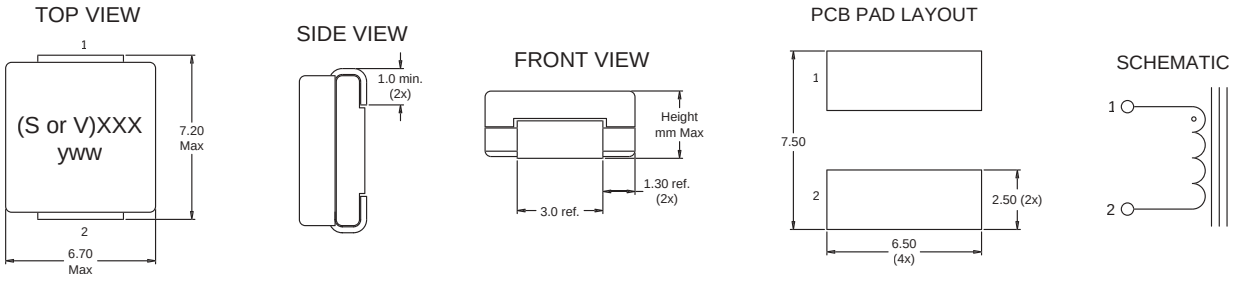
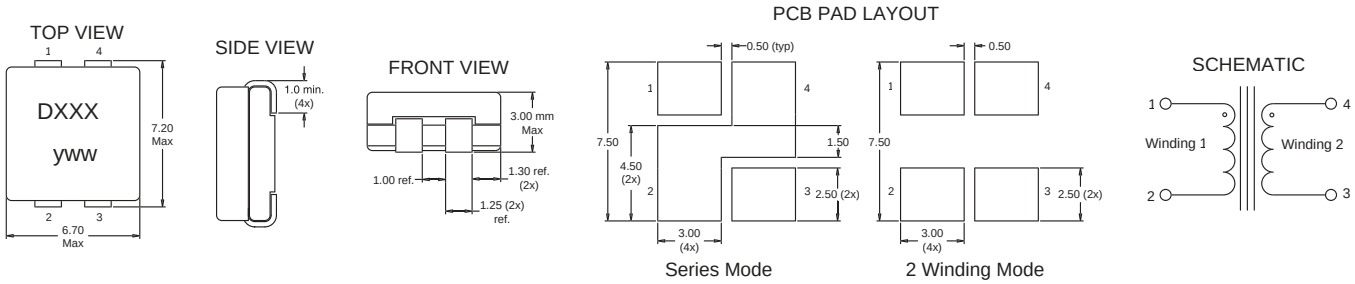
Mechanical Diagrams

Single Conductor

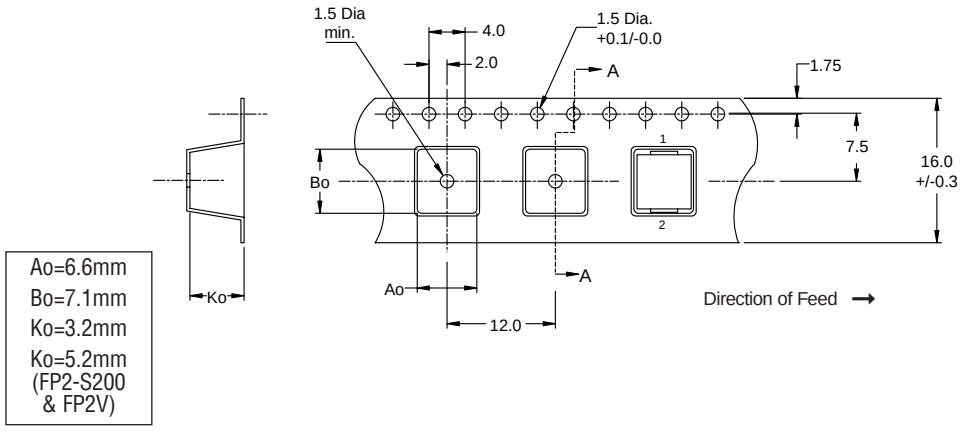


Dual Conductor



Notes: (1) Marking SXXX = S: Single Conductor Style, DXXX = D: Dual Conductor Style, XXX - last three digits of part number. Date Code: yww = y: Last Digit of year, ww: week of year.
(2) All Dimensions are in millimeters unless otherwise specified.
(3) For parallel mode operation, connect terminals 1 to 4 and 2 to 3 on PCB (use Single Conductor PCB Layout) For series mode operation, connect terminals 2 to 4 on PCB (Dual Conductor Model).

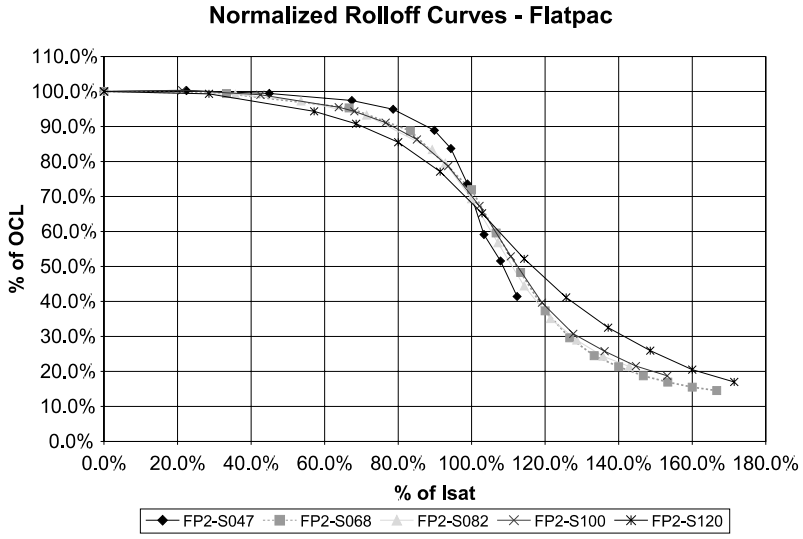
Packaging Information

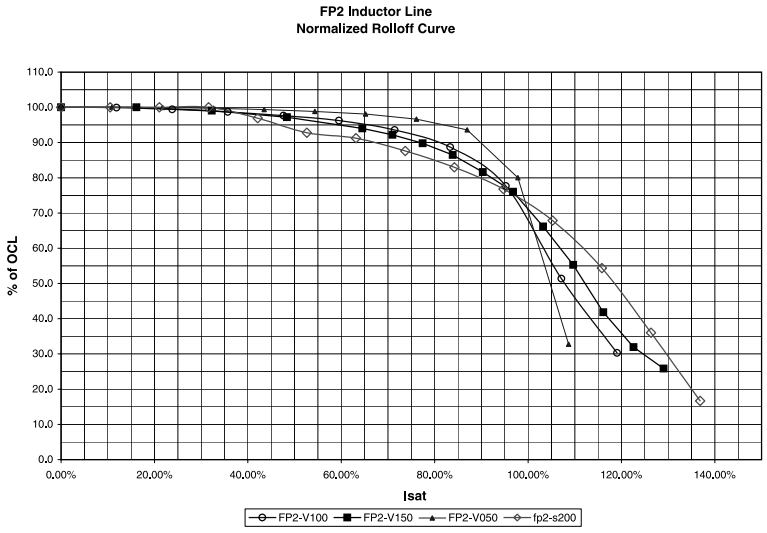


Ao=6.6mm
Bo=7.1mm
Ko=3.2mm
Ko=5.2mm
(FP2-S200
& FP2V)

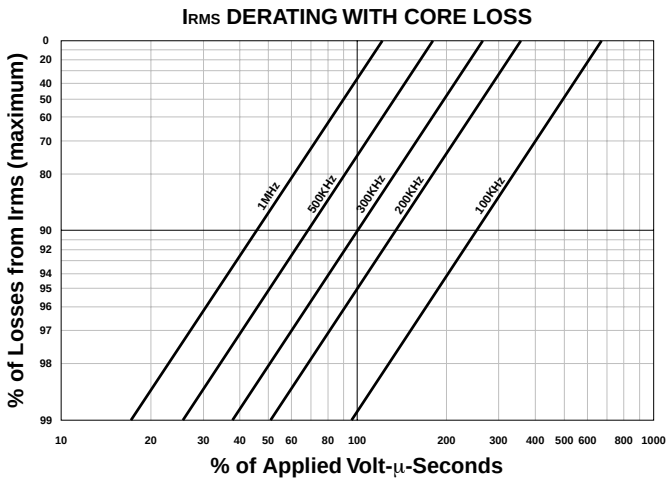
ACTUAL SIZE
FLAT-PAC'S

Rolloff





Core Loss



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Visit us on the Web at www.cooperET.com

3601 Quantum Boulevard Boynton Beach, Florida 33426-8638
Tel: +1-561-752-5000 Toll Free: +1-888-414-2645 Fax: +1-561-742-1178