COILTRONICS®

COOPER Bussmann

UNI-PAC™ Power Inductors (Surface Mount)

Description

- Miniature surface mount design
- Inductance range from 0.470uH to 1000uH
- Current range from 19.2 to .47 Amps
- Maximum power density
- Ideal for applications requiring low inductance and high current in a miniature package
- Modified standard products are available
- Protective case eliminates core breakage
- Meets UL 94V-0 flammability standard

Applications

- DC-DC converters on board level and industrial products

Environmental Data

- Storage temperature range: -40C to +125C
- Operating ambient temperature range: -40C to +85C (range is application specific)
- Infrared reflow temperature: +240C for 30 seconds maximum

Packaging

- Supplied in tape and reel packaging, 900 (UP1B), 550 (UP2B), 450 (UP3B), and 275 (UP4B) per reel

Part Number	Inductance µH (rated)	OCL(1) µH±20%	I RMS(2) Amperes	I SAT(3) Amperes	DCR(4) Ohms max.
UP1B-R47	0.47	0.569	6.0	7.7	0.0097
UP1B-1R0	1.0	1.20	4.4	5.3	0.0177
UP1B-1R5	1.5	1.61	4.2	4.5	0.0200
UP1B-2R2	2.2	2.62	3.1	3.5	0.0363
UP1B-3R3	3.3	3.79	2.9	3.0	0.0428
UP1B-4R7	4.7	5.15	2.2	2.6	0.0544
UP1B-6R8	6.8	6.87	1.7	2.2	0.0897
UP1B-100	10.0	11.00	1.5	1.9	0.1107
UP1B-150	15.0	16.00	1.2	1.5	0.1747
UP1B-220	22.0	23.50	1.0	1.2	0.2541
UP1B-330	33.0	36.00	0.82	0.99	0.3670
UP1B-470	47.0	48.50	0.72	0.87	0.4740
UP1B-680	68.0	73.52	0.58	0.67	0.7320
UP1B-101	100.0	112.67	0.47	0.53	1.11
UP1B-151	150.0	152.40	0.40	0.46	1.61
UP1B-221	220.0	223.10	0.36	0.38	1.96
UP1B-331	330.0	331.90	0.28	0.31	3.10
UP2B-R47	0.47	0.595	10.6	11.4	0.0049
UP2B-1R0	1.0	1.00	9.3	9.9	0.0065
UP2B-1R5	1.5	1.46	8.3	7.9	0.0081
UP2B-2R2	2.2	2.56	7.2	6.1	0.0107
UP2B-3R3	3.3	3.23	6.5	5.1	0.0128
UP2B-4R7	4.7	4.77	5.5	4.2	0.0165
UP2B-6R8	6.8	6.63	5.0	3.6	0.0202
UP2B-100	10.0	9.73	4.3	3.3	0.0267
UP2B-150	15.0	15.43	3.5	2.4	0.0410
UP2B-220	22.0	22.50	2.8	2.0	0.0617
UP2B-330	33.0	33.13	2.1	1.7	0.0917
UP2B-470	47.0	48.65	1.7	1.4	0.1388
UP2B-680	68.0	68.17	1.5	1.2	0.1787
UP2B-820	82.0	84.1	1.34	1.03	0.2235
UP2B-101	100.0	102.60	1.2	0.95	0.2707
UP2B-151	150.0	150	1.0	0.77	0.4100
UP2B-221	220.0	223	0.773	0.637	0.6717
UP2B-331	330.0	338	0.676	0.510	0.8783
UP2B-471	470.0	471	0.553	0.427	1.31

Notes: (1) Open Circuit Inductance Test Parameters: 100KHz, .250Vrms, 0.0Adc.
(2) RMS current for an approximate ΔT of 40°C. at an ambient temperature of 85˚C.
(3) Peak current for approximately 30% rolloff UP1B, 3B, 4B. 10% rolloff UP2B @ 20°C
(4) DCR limits 20°C.

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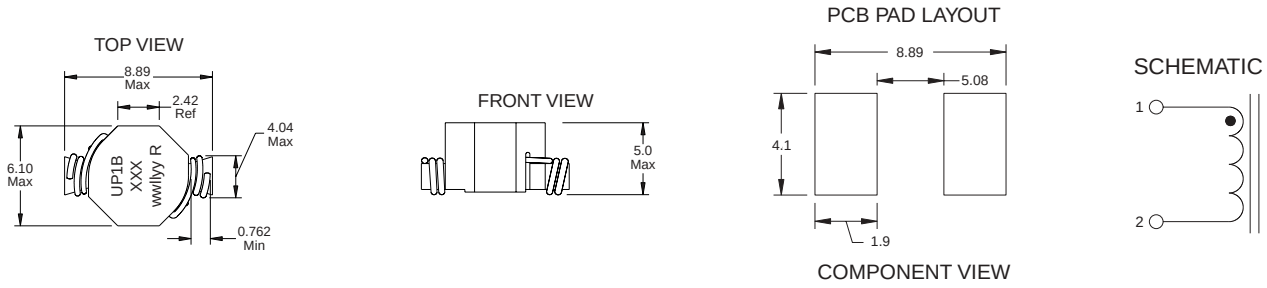
UNI-PAC™ Power Inductors (Surface Mount)

Part Number	Inductance µH (rated)	OCL[1] µH±20%	I RMS[2] Amperes	I SAT[3] Amperes	DCR[4] Ohms max.
UP2B-681	680.0	700	0.452	0.355	1.97
UP2B-821	820.0	823	0.423	0.334	2.24
UP2B-102	1000.0	1005	0.369	0.300	2.96
UP3B-R47	0.47	0.452	16.0	25.1	0.0021
UP3B-1R0	1.0	1.34	12.5	15.3	0.0034
UP3B-1R5	1.5	2.08	10.0	12.0	0.0053
UP3B-2R2	2.2	3.01	9.2	10.2	0.0074
UP3B-3R3	3.3	3.96	8.0	9.3	0.0083
UP3B-4R7	4.7	5.00	6.5	7.7	0.0114
UP3B-6R8	6.8	7.70	5.8	6.2	0.0183
UP3B-100	10.0	11.00	4.3	5.2	0.0260
UP3B-150	15.0	16.38	3.9	4.3	0.0317
UP3B-220	22.0	23.93	3.1	3.7	0.0490
UP3B-330	33.0	33.85	2.4	3.0	0.0688
UP3B-470	47.0	51.00	1.9	2.4	0.1082
UP3B-680	68.0	69.50	1.6	2.0	0.1558
UP3B-101	100.0	101.40	1.4	1.8	0.2053
UP3B-151	150.0	152.9	1.2	1.4	0.2960
UP3B-331	330.0	332.80	0.75	0.98	0.7330
UP4B-R47	0.47	0.473	19.2	51.7	0.0019
UP4B-1R0	1.0	0.916	17.3	37.3	0.0023
UP4B-1R5	1.5	1.52	13.4	28.9	0.0039
UP4B-2R2	2.2	2.27	12.0	23.7	0.0048
UP4B-3R3	3.3	3.14	11.0	20.2	0.0057
UP4B-4R7	4.7	5.34	8.6	15.6	0.0093
UP4B-6R8	6.8	6.66	8.3	14.1	0.0100
UP4B-100	10.0	9.77	6.8	11.5	0.0150
UP4B-150	15.0	15.61	5.5	9.1	0.0230
UP4B-220	22.0	22.61	4.5	7.6	0.0340
UP4B-330	33.0	34.30	3.7	6.1	0.0520
UP4B-470	47.0	48.10	3.1	5.2	0.0740
UP4B-680	68.0	69.14	2.4	4.3	0.1200
UP4B-101	100.0	99.42	2.0	3.6	0.1700
UP4B-151	150.0	146.90	1.7	3.0	0.2392
UP4B-221	220.0	221.40	1.4	2.4	0.3571
UP4B-331	330.0	330.00	1.1	2.0	0.5800
UP4B-471	470.0	470.10	0.91	1.7	0.8330

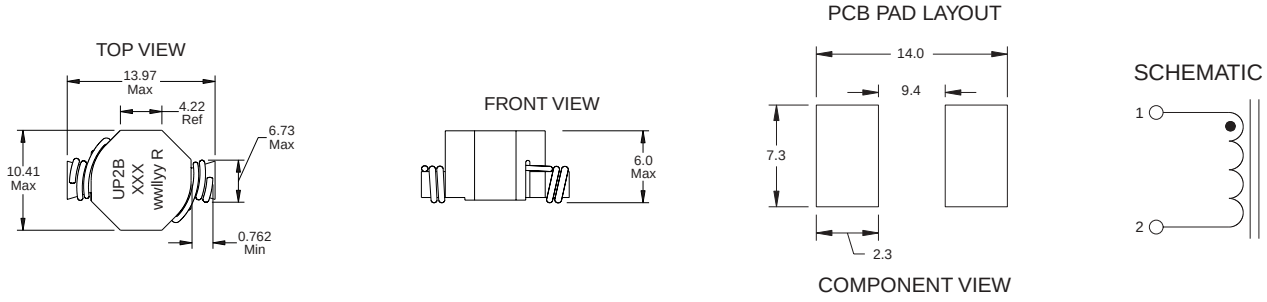
Notes: (1) Open Circuit Inductance Test Parameters: 100KHz, .250Vrms, 0.0Adc.
(2) RMS current for an approximate ΔT of 40°C. at an ambient temperature of 85°C.
(3) Peak current for approximately 30% rolloff UP1B, 3B, 4B. 10% rolloff UP2B @ 20°C
(4) DCR limits 20°C.

Mechanical Diagrams

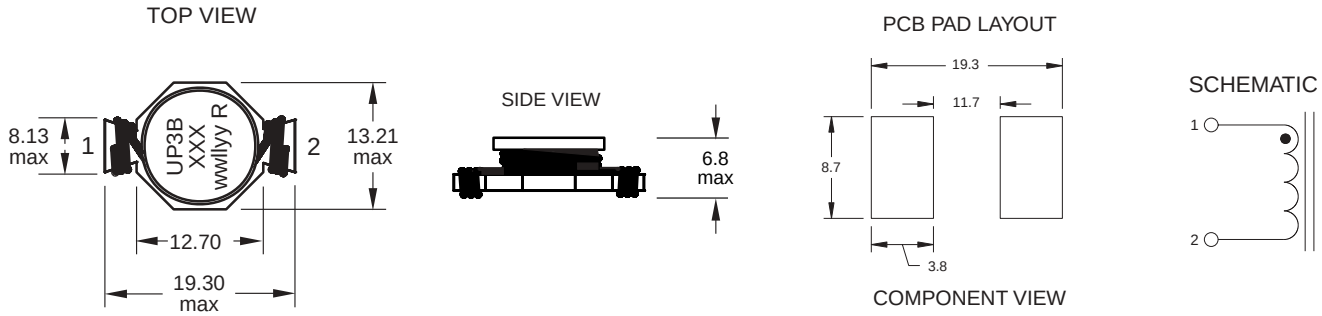
UP1B Series



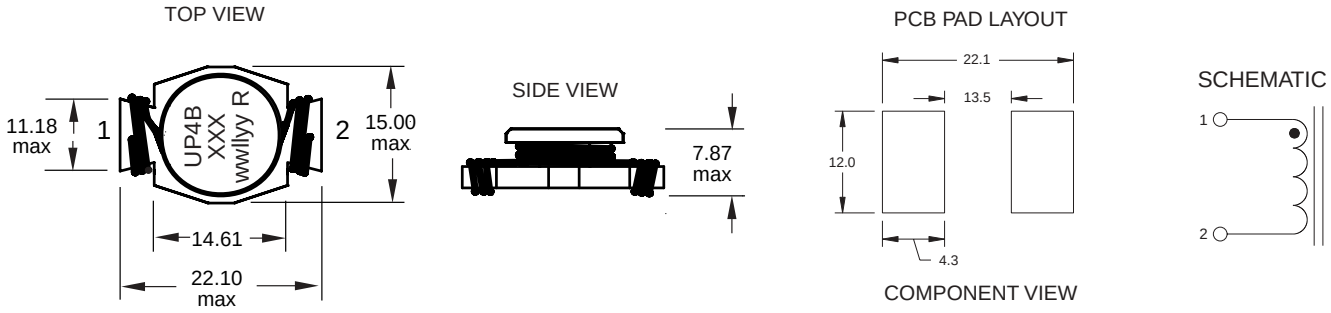
UP2B Series



UP3B Series



UP4B Series

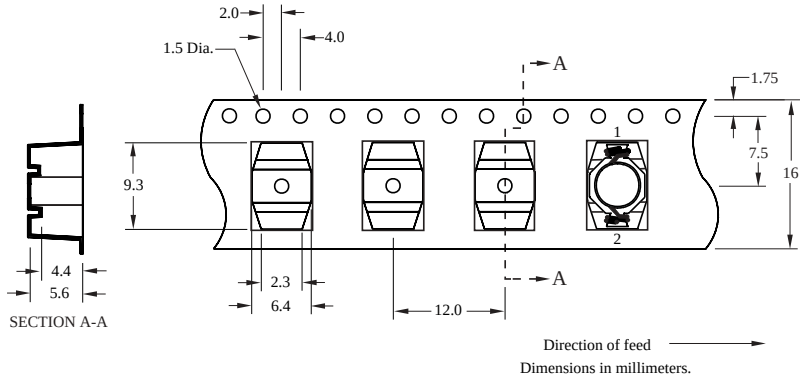


Dimensions in Millimeters.

wwllyy = (date code) R = revision level
xxx = Inductance value per family chart

Packaging Information

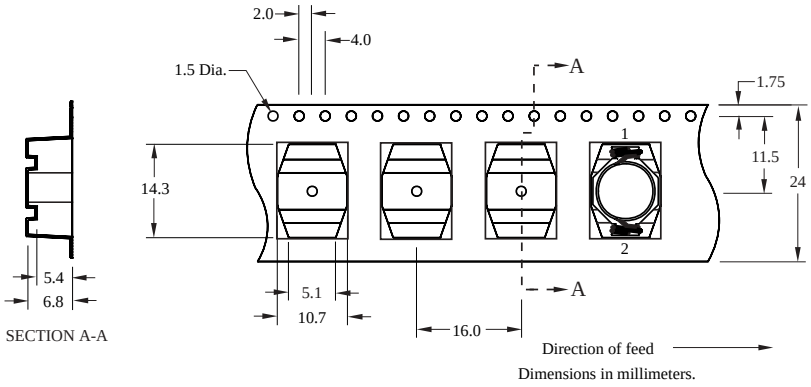
UP1B Series



ACTUAL SIZE
UNI-PAC 1B

Parts packaged on 13" Diameter reel,
900 parts per reel.

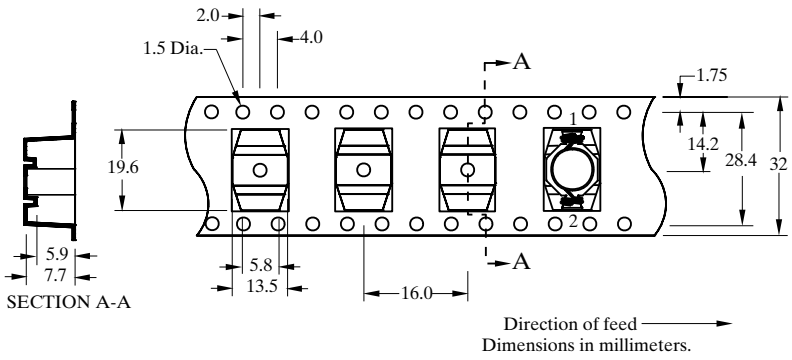
UP2B Series



ACTUAL SIZE
UNI-PAC 2B

Parts packaged on 13" Diameter reel,
550 parts per reel.

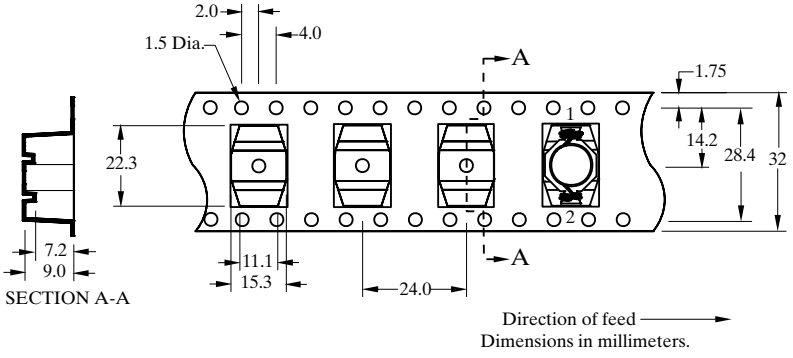
UP3B Series



ACTUAL SIZE
UNI-PAC 3B

Parts packaged on 13" Diameter reel,
450 parts per reel.

UP4B Series

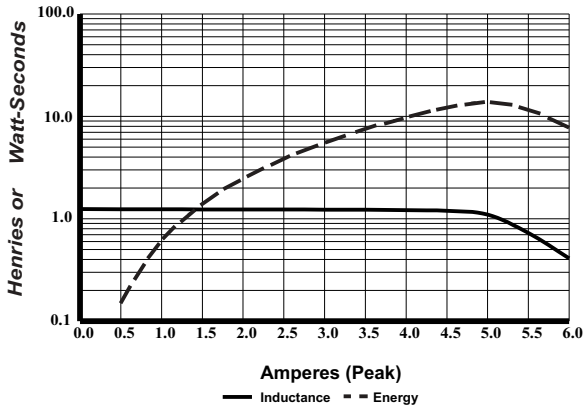


ACTUAL SIZE
UNI-PAC 4B

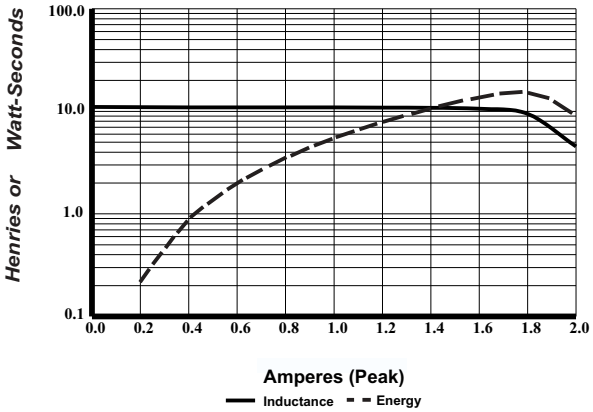
Parts packaged on 13" Diameter reel,
275 parts per reel.

Mechanical Diagrams

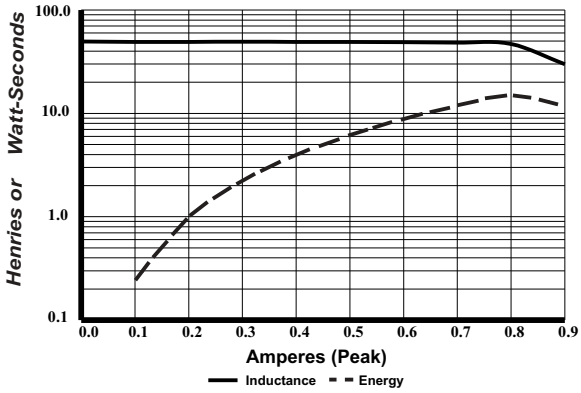
UP1B-1R0
Typical Inductance & Energy vs Saturation Current



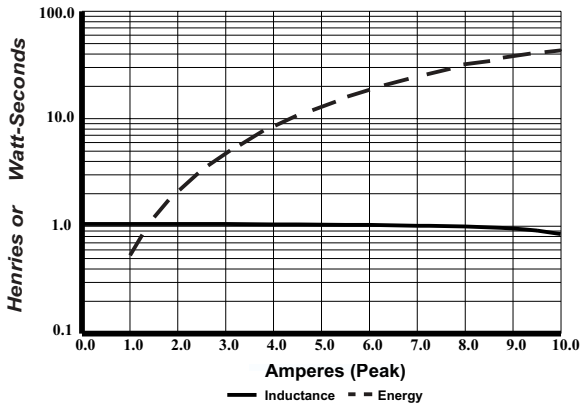
UP1B-100
Typical Inductance & Energy vs Saturation Current



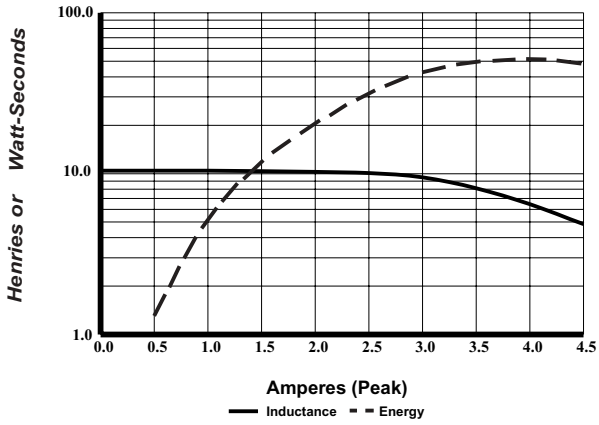
UP1B-470
Typical Inductance & Energy vs Saturation Current



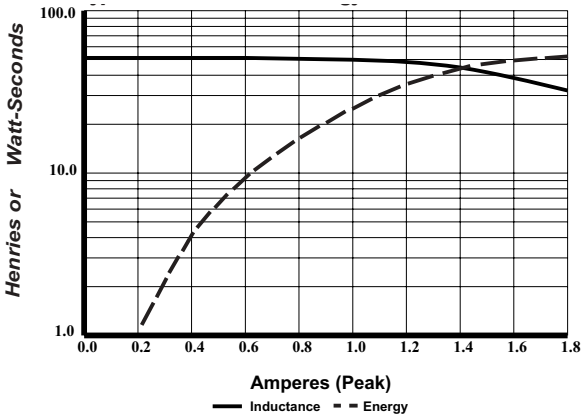
UP2B-1R0
Typical Inductance & Energy vs Saturation Current



UP2B-100
Typical Inductance & Energy vs Saturation Current

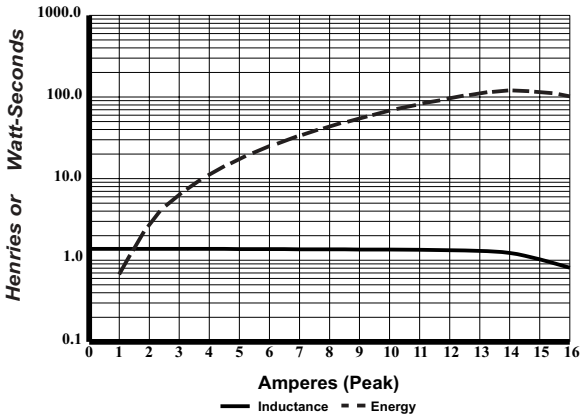


UP2B-470
Typical Inductance & Energy vs Saturation Current

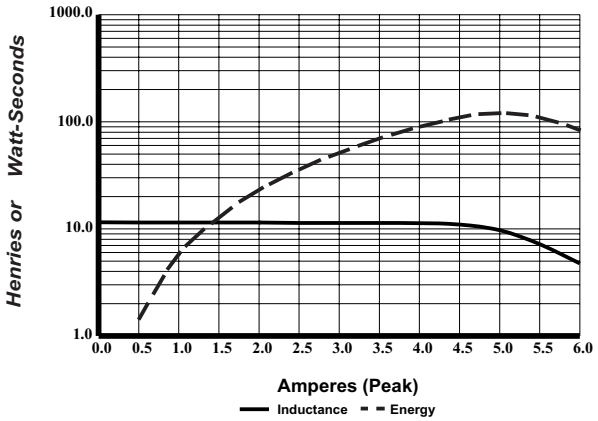


Mechanical Diagrams

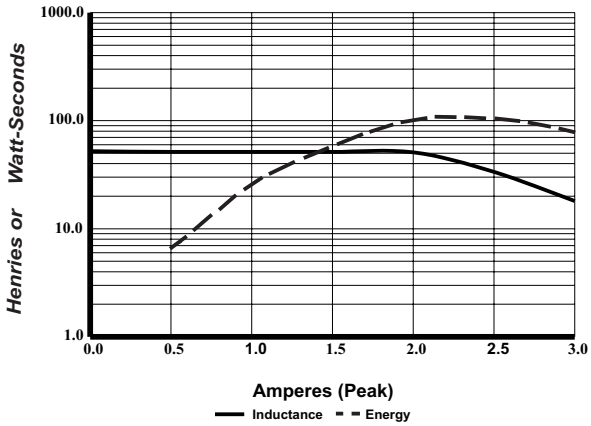
UP3B-1R0
Typical Inductance & Energy vs Saturation Current



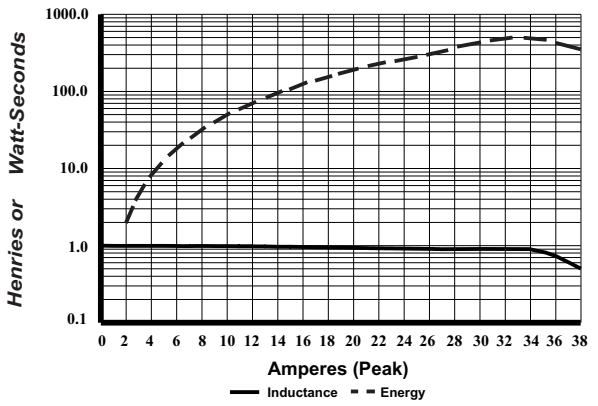
UP3B-100
Typical Inductance & Energy vs Saturation Current



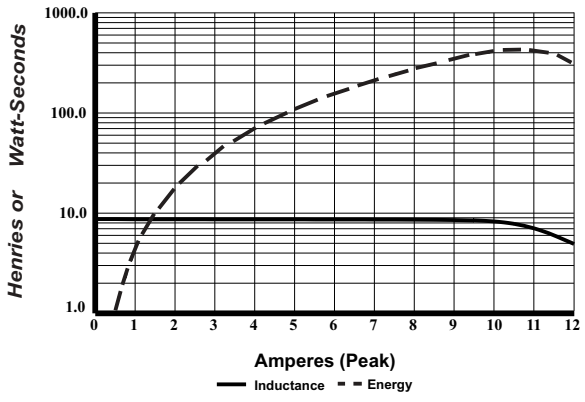
UP3B-470
Typical Inductance & Energy vs Saturation Current



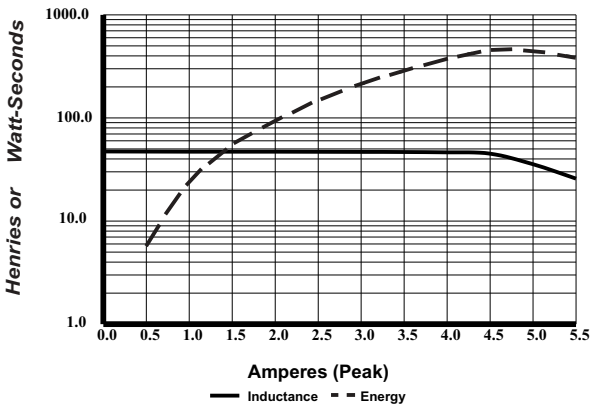
UP4B-1R0
Typical Inductance & Energy vs Saturation Current



UP4B-100
Typical Inductance & Energy vs Saturation Current



UP4B-470
Typical Inductance & Energy vs Saturation Current



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