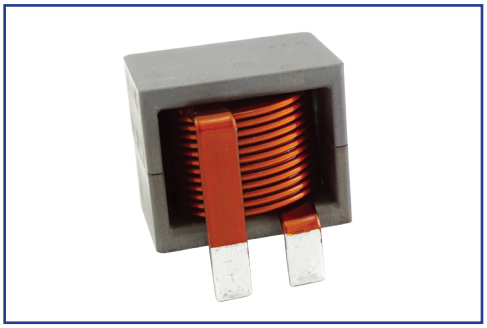
HIGH CURRENT HELICAL EDGE WOUND (HEW™) FLAT WIRE INDUCTOR

MPS INDUSTRIES

HWI34H SERIES



- High Current HEW™ Inductor in low-profile compact form
- Very low DCR
- True 45-55 Amp handling capability on the wire (refer to Isat characteristic when doing your design to see which is more critical)
- Core Material: Powdered Cores with distributed air gap for soft saturation
- Operating Temperature -40ºC to +180ºC
- Terminations: RoHS compliant, typically SAC305 or equivalent
- Custom design, higher current, different mounting options available

ELECTRICAL PARAMETERS @ 25°C

Part Number	Inductance[1] (µH) ±12%	DCR[2] (mΩ)		Isat[3] (Amp) Typical			Irms[4] (Amp) Typical		SRF[5] (MHz) Typical	Capacitance (pF) Typical	Weight (g) Typical
		Nom	Max	10% Drop	20% Drop	30% Drop	20ºC Rise	40ºC Rise			
HWI3422-055A-110H	11.0	1.50	1.90	39	57	75	36	55	23.0	4.3	100
HWI3422-055A-7R3H	7.3			71	101	126			26.0	5.1	
HWI3422-055A-4R7H	4.7			> 120	> 150	>180			36.0	4.0	
HWI3428-047A-200H	20.0	2.10	2.60	30	42	52	31	47	18.0	3.0	130
HWI3428-047A-130H	13.0			58	78	100			25.0	3.1	
HWI3428-047A-8R8H	8.8			> 86	> 120	> 160			35.0	2.4	
HWI3428-047A-240H	24.0	2.20	2.80	29	42	52	31	47	14.0	5.4	135
HWI3428-047A-160H	16.0			48	> 60	> 82			22.0	3.3	
HWI3428-047A-100H	10.0			> 86	> 120	> 160			25.0	4.1	
HWI3432-045A-290H	29.0	2.60	3.40	26	38	48	30	45	16.0	3.9	138
HWI3432-045A-190H	19.0			48	69	86			17.0	4.6	
HWI3432-045A-120H	12.0			86	> 120	> 160			25.0	3.4	

Note:

1. Inductance measured at 100 kHz, 1.0 Vrms, 0 Adc on Agilent/HP 4284A LCR meter or Equivalent
2. DCR measured on GW Instek GOM-802 Microhmmeter or Equivalent.
3. DC Current at 25ºC resulting in % drop of inductance from zero current. Isat is the more critical current specification when less than Irms.
4. Current that causes a specificed temperature rise in an inductor from 25ºC ambient. This specification is for reference only as the actual Temperature Rise will depends on the type of wires used and the cooling available (convection via airflow, or conduction through mounting to heat sink). The actual Temperature Rise will be much lower as the flat wire has greater surface for heat dissipation under power.
5. SRF measured using Agilent/HP 4395A network analyzer and an Agilent/HP 43961A test fixture.

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MPS INDUSTRIES

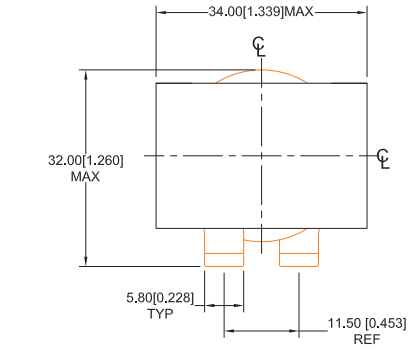
HWI34H SERIES

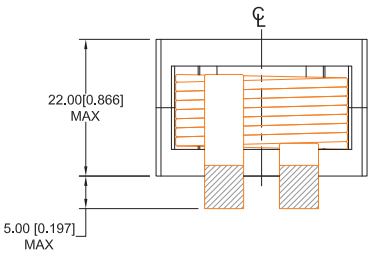
DIMENSIONS: mm [inch]

HWI3422-XXX

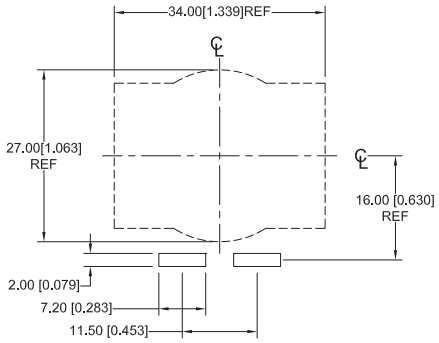
HWI3422-055A-110H
HWI3422-055A-7R3H
HWI3422-055A-4R7H

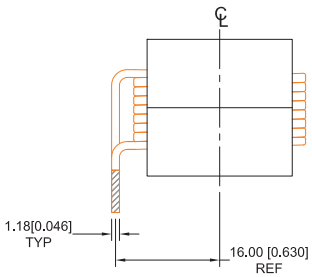
Dimensions





Recommended PCB Layout



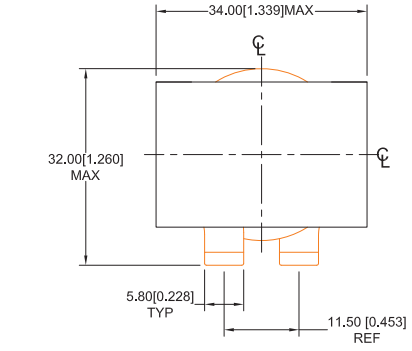


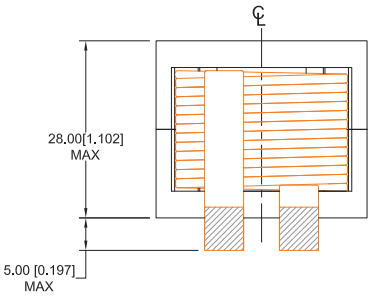
HWI3428-XXX

HWI3428-047A-200H
HWI3428-047A-130H
HWI3428-047A-8R8H

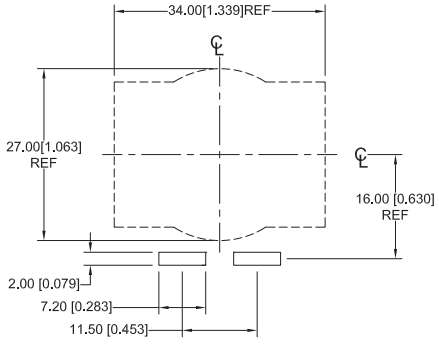
HWI3428-047A-240H
HWI3428-047A-160H
HWI3428-047A-100H

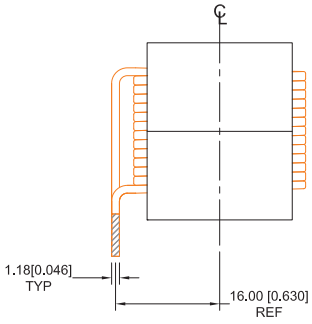
Dimensions





Recommended PCB Layout





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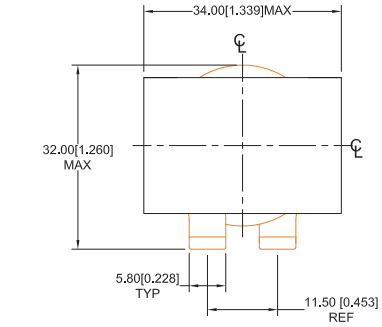
HIGH CURRENT HELICAL EDGE WOUND (HEW™) FLAT WIRE INDUCTOR

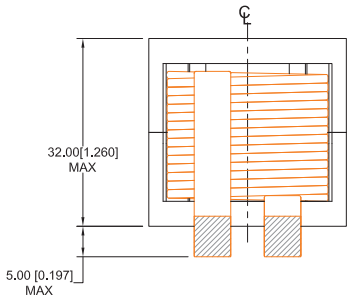
HWI34H SERIES

DIMENSIONS: mm [inch]

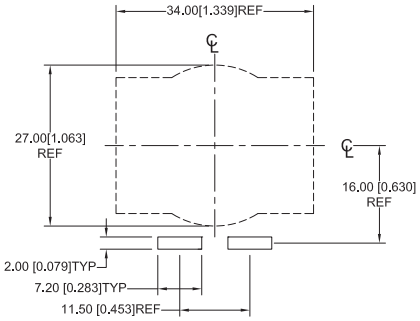
HWI3432-XXX
HWI3432-045A-290H
HWI3432-045A-190H
HWI3432-045A-120H

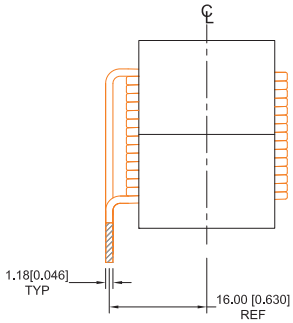
Dimensions





Recommended PCB Layout





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Product performance is limited to specified parameters. Data is subject to change without prior notice.

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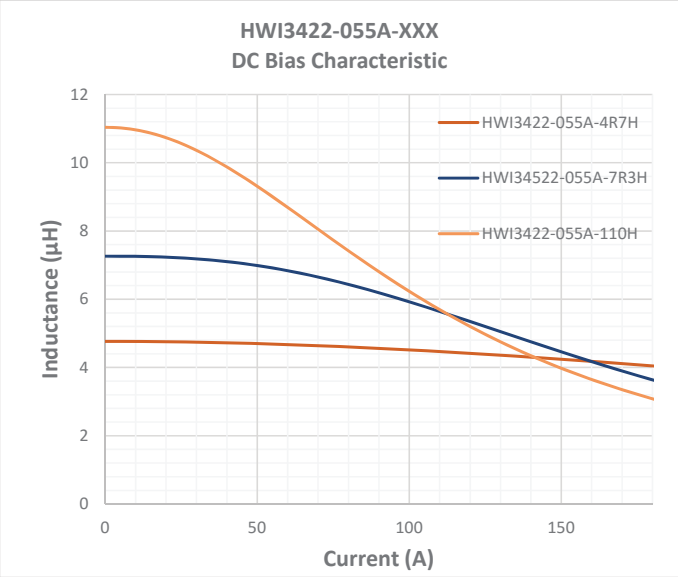
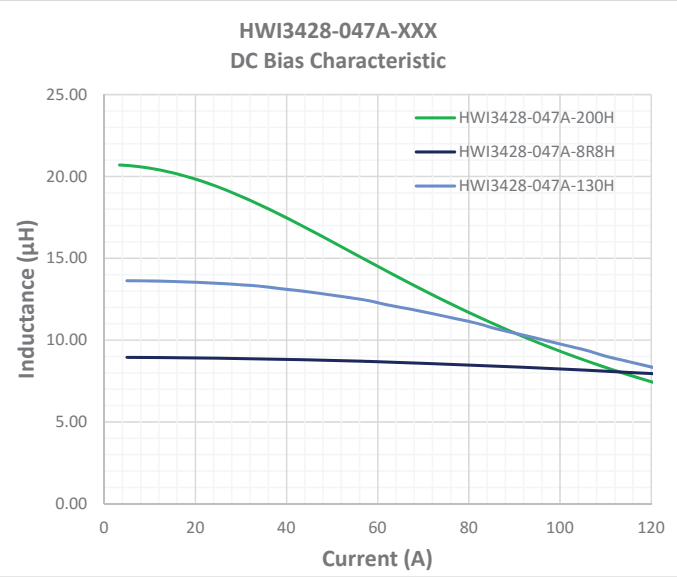
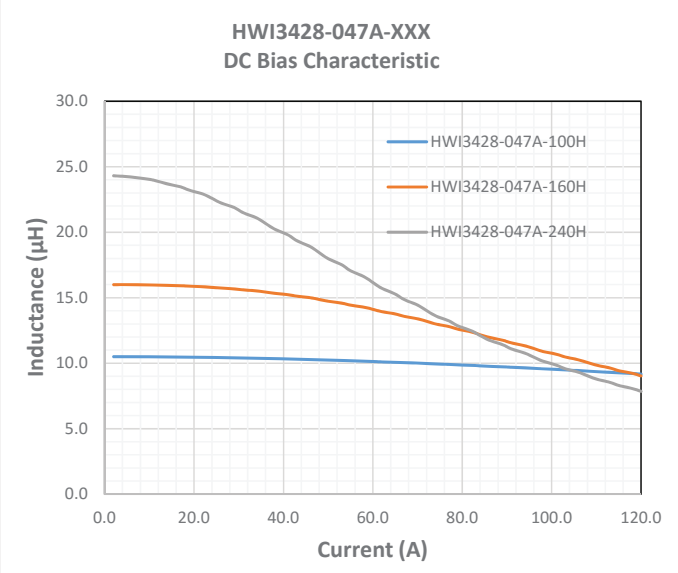
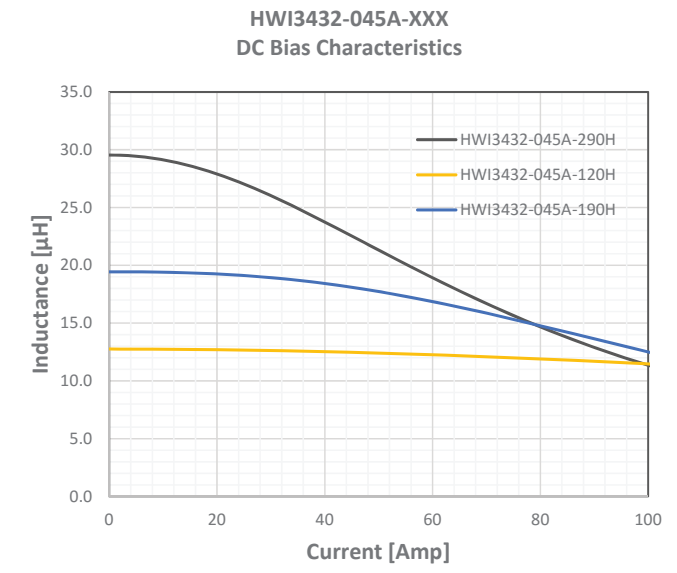
HWI34H SERIES

DC BIAS CHARACTERISTIC









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