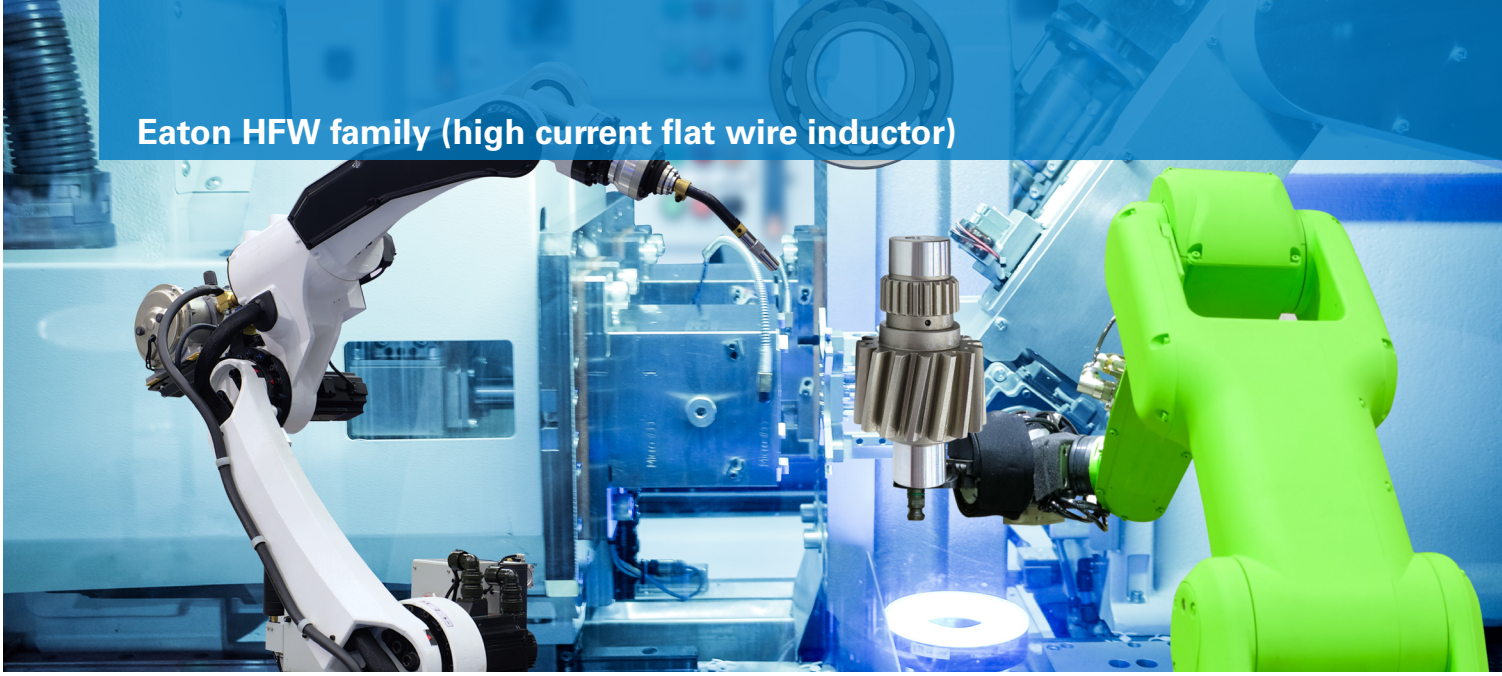
Eaton HFW family (high current flat wire inductor)



High current flat wire, ferrite core inductors for a wide range of electronic applications

Eaton's HFW family of next-generation high-current flat wire inductors consists of 6 sizes across 21 SKUs and is conveniently packaged in two standard SMT layouts.

Product description

Eaton's HFW family of next-generation high current flat wire inductors consist of 6 sizes across 21 SKUs: HFW1V2210, HFW1V2211, HFW1V2213, HFW1V2215, HFW1V2815 and HFW1V2818. The HFW is conveniently packaged in two standard SMT size: 22 mm x 22 mm and 28 mm x 28 mm. Their high performance is due to a robust ferrite core construction with self-leaded terminations, offering low DCR and high current carrying capability. The HFW inductors are suitable for high-current applications requiring high efficiency/low loss and excellent performance stability. They are magnetically shielded for high EMI immunity and rated from -40 °C to +125 °C operating temperatures.

Features and benefits

- Two SMT footprint sizes (HFW1V22: 4.7 µH to 20.0 µH and HFW1V28: 2.2 µH to 33.0 µH) covering a wide range of PCB SMT applications
- Provides engineers with more power density and lower DCR loss
- Wide range of inductances suitable for new generation buck, boost converters, and power filtering applications
- High power density for low losses and greater efficiency in applications such as DC-DC converters
- Self-leaded SMT terminals provide strong mechanical and electrical connection in PCB SMT footprints
- Magnetic shielding allows the application to be more immune to electro-magnetic interference (EMI)
- Improves application reliability under a wide range of environmental conditions
- High operating temperature (from -40 °C to +125 °C) suitable for a wide range of computing, industrial, energy and medical applications

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High current flat wire selection and sizes

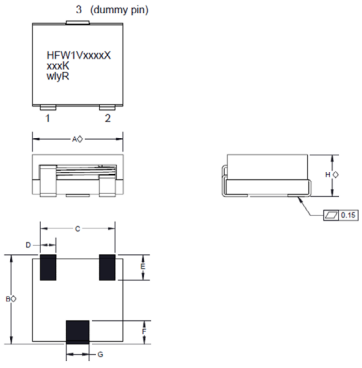
Product specifications

Part number[4]	OCL[1] (µH) ± 10% (Pin 1-2)	I_{rms}[2] (A) typical	I_{sat}[3] (A) (Pin 1-2)	DCR (mΩ) maximum (Pin 1-2) @ +25 °C
HFW1V22				
HFW1V2210H4R7K	4.7	28	22.0	2.4
HFW1V2210H6R8K	6.8	26.5	19.0	2.9
HFW1V2211H8R2K	8.2	24	18.5	3.4
HFW1V2213H100K	10	22	21.0	3.9
HFW1V2213H150K	15	22	15.3	3.9
HFW1V2215H200K	20	19	14.3	6.4
HFW1V2815				
HFW1V2815H2R2K	2.2	30	100.0	2.05
HFW1V2815H3R3K	3.3	30	66.9	2.05
HFW1V2815H4R7K	4.7	30	48.0	2.05
HFW1V2815H6R8K	6.8	30	34.5	2.05
HFW1V2815H100K	10	30	21.5	2.05
HFW1V2815H150K	15	30	14.0	2.05
HFW1V2815H220K	22	30	8.6	2.05
HFW1V2815H330K	33	30	5.1	2.05
HFW1V2818				
HFW1V2818H3R3K	3.3	28	92.5	2.86
HFW1V2818H4R7K	4.7	28	61.2	2.86
HFW1V2818H6R8K	6.8	28	45.0	2.86
HFW1V2818H100K	10	28	31.2	2.86
HFW1V2818H150K	15	28	21.2	2.86
HFW1V2818H220K	22	28	14	2.86
HFW1V2818H330K	33	28	8.7	2.86

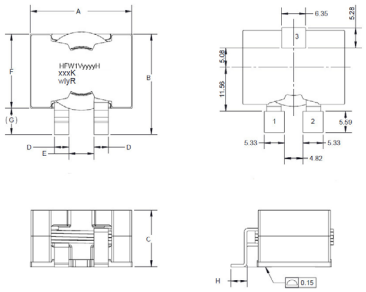
Mechanical parameters, schematic, pad layout (mm)

Drawings are representative

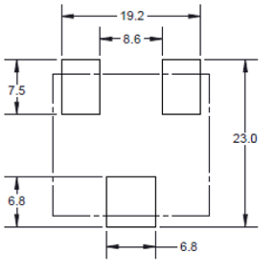
HFW1V22



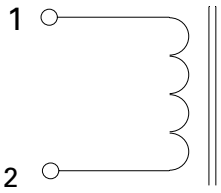
HFW1V28



Recommended pad layout



Schematic



See data sheets for complete details.

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Printed in USA
Publication No. ELX1424 BU-ELX22304
March 2023

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