

**HIGH CURRENT 2<sup>™</sup>** 

**Power Inductors** 

# **COOPER** Bussmann

# Description

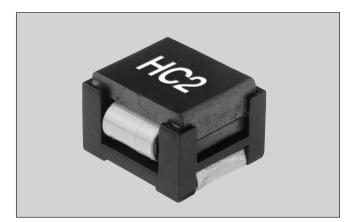
- · Compact footprint for high density, high current/low voltage applications
- · Foil technology that adds higher reliability factor over the traditional magnet wire used for higher frequency circuit designs
- Frequency Range up to 1MHz

### **Applications**

- Next generation microprocessors
- Energy storage applications
- DC-DC converters
- Computers

## **Environmental Data**

- Storage temperature range: -40C to +125C
- Operating ambient temperature range: -40C to +85C (range is application specific).
- Infrared reflow temperature: +260C for 10 seconds maximum



# Packaging

- Supplied in bulk packaging. Tape and reel packaging available - contact factory.
- It is recommended to use HC2LP for new designs.

Part Number	Rated Inductance µH	OCL (1) μH ± 20%	Irms (2) Amperes (Typ.)	Isat (3) Amperes (Typ.)	DCR (4) Ohms (Max.)	Volts (5) µSec
HC2-R47	.47	.52	52.9	63.75	.0006	6.87
HC2-R68	.68	.63	52.9	50.00	.0006	6.87
HC2-1R0	1.0	1.15	33.0	42.50	.0013	10.31
HC2-2R2	2.2	2.00	24.3	31.90	.0023	13.75
HC2-4R7	4.7	4.55	17.0	21.25	.0046	20.62
HC2-6R0	6.0	6.00	17.0	16.50	.0046	20.62

1) Open Circuit Inductance Test Parameters: 300kHz, 0.250 Vrms, 0.0 Adc 2) DC current for an approximate temperature change 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 125°C under

worst case operating conditions verified in the end application.

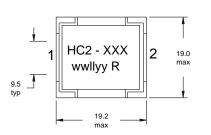
3) Peak current for approximately 30% roll-off 4) Values @ 20°C

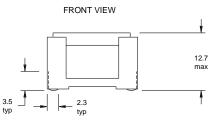
5) Applied Volt-Time product (V-μS) across the inductor. This value represents the applied V-μS at 300KHz necessary to generate a core loss equal to 10% of the total losses for 40°C temperature rise.

Parts packaged in bulk. 45 pieces per tray.

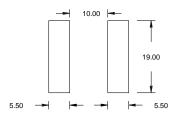
# **Mechanical Diagrams**

#### TOP VIEW

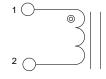




#### RECOMMENDED PCB PAD LAYOUT

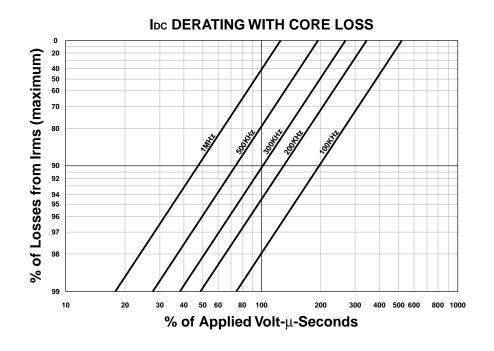


SCHEMATIC

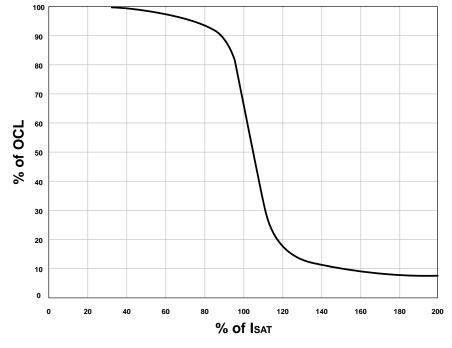








# INDUCTANCE VERSUS SATURATION CURRENT



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