

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

- 45 parts per tray bulk packaging.
- Tape and reel packaging also available, 44mm width, 110 parts per 13" reel.
- Add -TR after part number for tape and reel packaging.

Part Number	Rated Inductance μH	OCL (1) $\mu\text{H} \pm 20\%$	I _{rms} (2) Amperes (Typ.)	I _{sat} (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

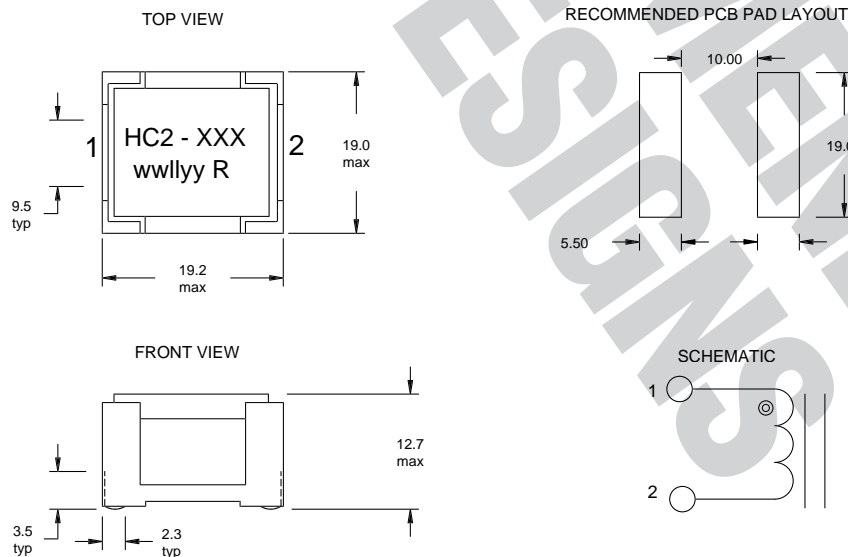
- 1) Open Circuit Inductance Test Parameters: 300kHz, 0.250 Vrms, 0.0 Adc
- 2) DC current for an approximate temperature change of 40°C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow and proximity of other heat generating components will affect 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

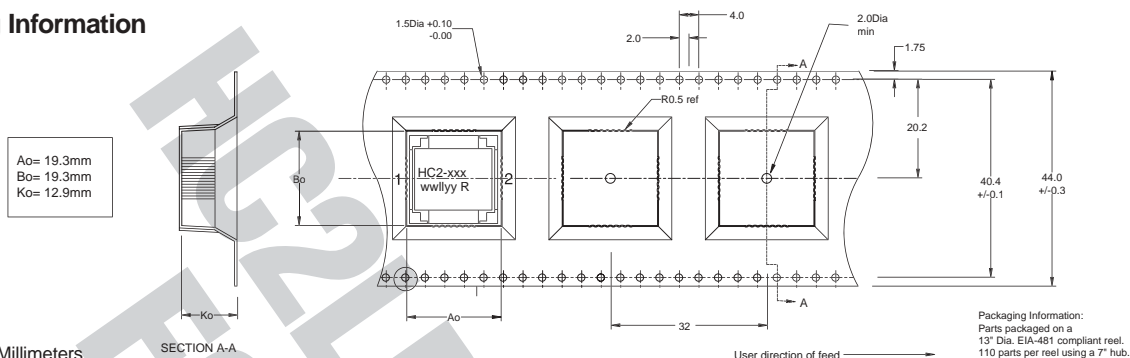
- 4) Values @ 20°C

- 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.

Mechanical Diagrams



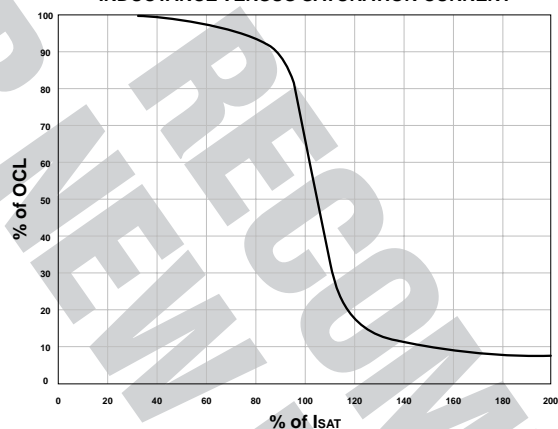
Packaging Information



Dimensions in Millimeters

Rolloff

INDUCTANCE VERSUS SATURATION CURRENT



Core Loss

Idc DERATING WITH CORE LOSS

