



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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

### Packaging

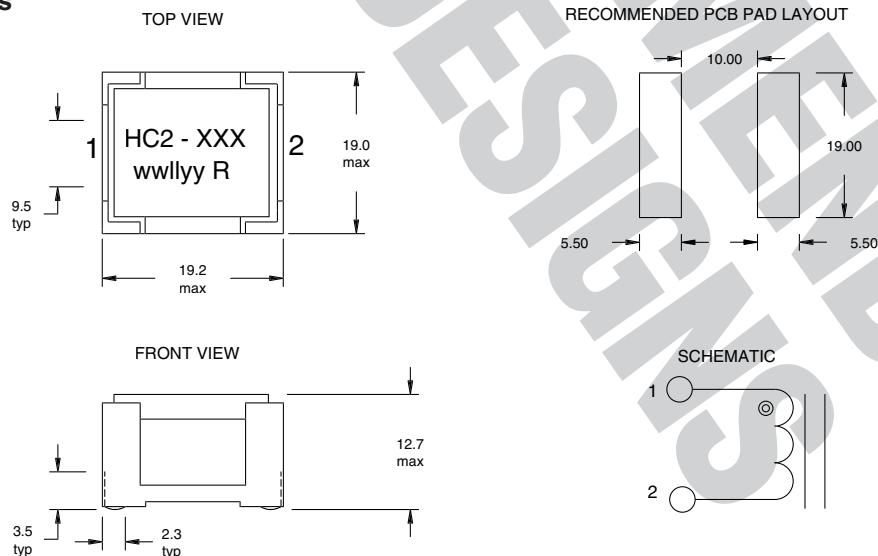
- 45 parts per tray bulk packaging.
- Tape and reel packaging also available, 44mm width, 110 parts per 13" reel.
- Add -TR after part number for tape and reel packaging.

Part Number	Rated Inductance $\mu\text{H}$	OCL (1) $\mu\text{H} \pm 20\%$	I <sub>rms</sub> (2) Amperes (Typ.)	I <sub>sat</sub> (3) Amperes (Typ.)	DCR (4) Ohms (Max.)	Volts (5) $\mu\text{Sec}$
HC2-R47-R	.47	.52	52.9	63.75	.0006	6.87
HC2-R68-R	.68	.63	52.9	50.00	.0006	6.87
HC2-1R0-R	1.0	1.15	33.0	42.50	.0013	10.31
HC2-2R2-R	2.2	2.00	24.3	31.90	.0023	13.75
HC2-4R7-R	4.7	4.55	17.0	21.25	.0046	20.62
HC2-6R0-R	6.0	6.00	17.0	16.50	.0046	20.62

1) Open Circuit Inductance Test Parameters: 300kHz, 0.250 V<sub>rms</sub>, 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.

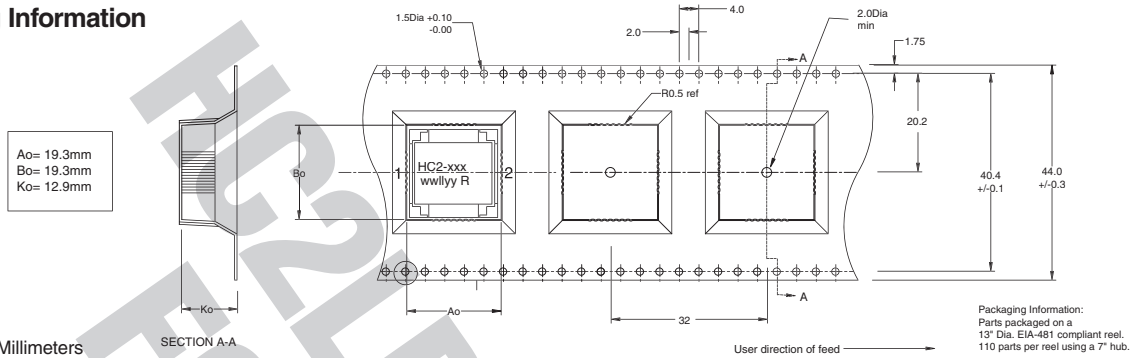
3) Peak current for approximately 30% roll-off  
 4) Values @ 20°C  
 5) Applied Volt-Time product (V- $\mu\text{s}$ ) across the inductor. This value represents the applied V- $\mu\text{s}$  at 300kHz necessary to generate a core loss equal to 10% of the total losses for 40°C temperature rise.

### Mechanical Diagrams



Dimensions in Millimeters

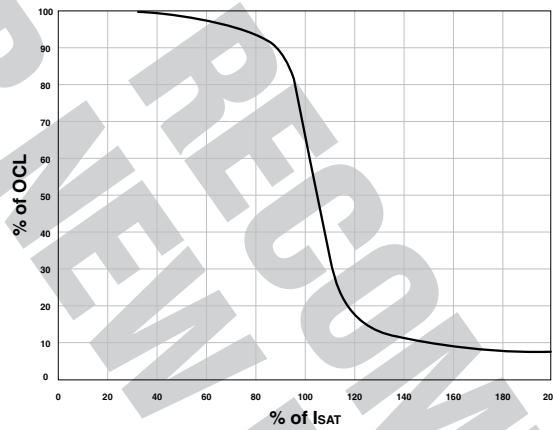
**Packaging Information**



Dimensions in Millimeters

**Rolloff**

**INDUCTANCE VERSUS SATURATION CURRENT**



**Core Loss**

**IRMS DERATING WITH CORE LOSS**

