



# **HIGH CURRENT 2LP Low Profile Power Inductors**

### 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
- Ferrite core material

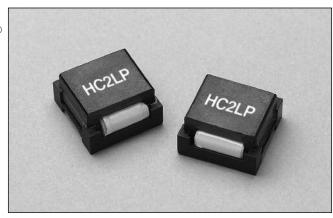
## **Applications**

- 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 max. for 10 seconds max.





# **Packaging**

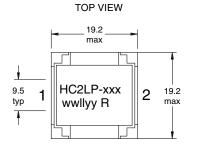
 Supplied in tape and reel packaging, 44mm width, 130 parts per 13" reel

Part Number	Rated Inductance µH	OCL (1) μH ± 20%	Irms (2) Amperes (Typ.)	Isat (3) Amperes (Typ.)	DCR (4) Ohms (Max.)	Volts (5) µSec
HC2LP-R47-R	.47	.52	52.9	63.75	.0006	6.87
HC2LP-R68-R	.68	.63	52.9	50.00	.0006	6.87
HC2LP-1R0-R	1.0	1.15	33.0	42.50	.0013	10.31
HC2LP-2R2-R	2.2	2.00	24.3	31.90	.0023	13.75
HC2LP-4R7-R	4.7	4.55	17.0	21.25	.0046	20.62
HC2LP-6R0-R	6.0	6.00	17.0	16.50	.0046	20.62

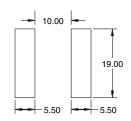
- 1) Open Circuit Inductance Test Parameters: 300kHz, 0.250 Vrms, 0.0 Adc
- 2) DC current for an approximate temperature change of 40°C without core loss. Derating is necessary for AC currents.
  - PCB layout, trace thickness and width, air-flow and proximity of other heat generating components will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

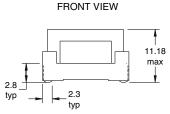
    It is recommended that the temperature of the part not exceed 125°C under
- worst case operating conditions verified in the end application.
- 3) Peak current for approximately 30% roll-off
- 4) Values @ 20°C
- 5) Applied Volt-Time product (V-µS) across the inductor. This value represents the applied V-µS at 300KHz necessary to generate a core loss equal to 10% of the total losses for 40°C temperature rise.

#### **Mechanical Diagrams**



#### RECOMMENDED PCB PAD LAYOUT

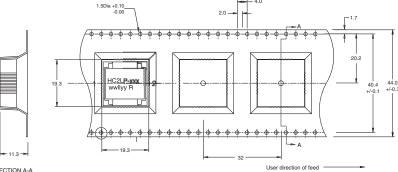






xxx = Inductance value wwllyy = Date code R = Revision level

#### **Packaging Information**



Dimensions in Millimeters

SECTION A-A

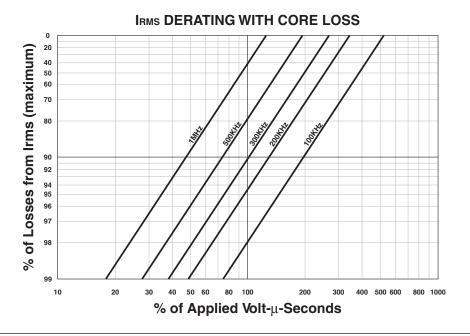
Parts packaged on 13" Diameter reel, 130 parts per reel.



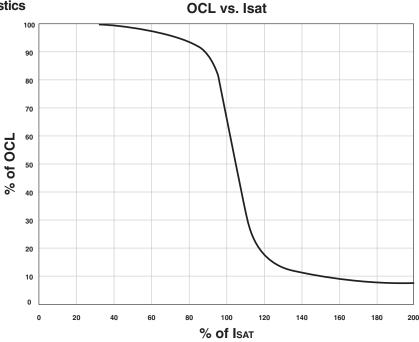
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#### **Core Loss**



#### **Inductance Characteristics**





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