

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

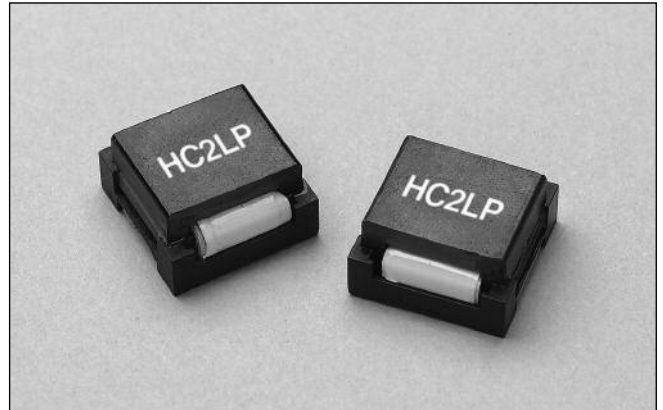


Applications

- 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

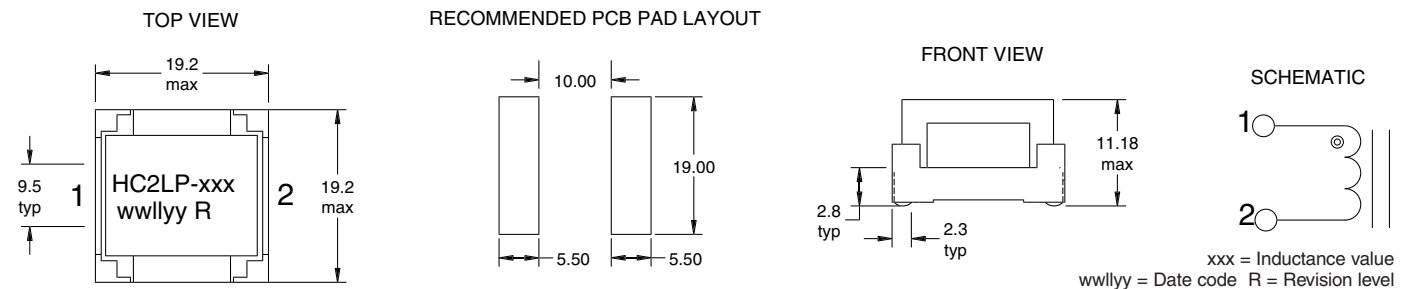
- Supplied in tape and reel packaging, 44mm width, 130 parts per 13" reel
- 45 parts per tray, bulk packaging also available

| 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 |
|-------------|--------------------------------|--------------------------------|-------------------------------------|-------------------------------------|---------------------|---------------------------|
| 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 |

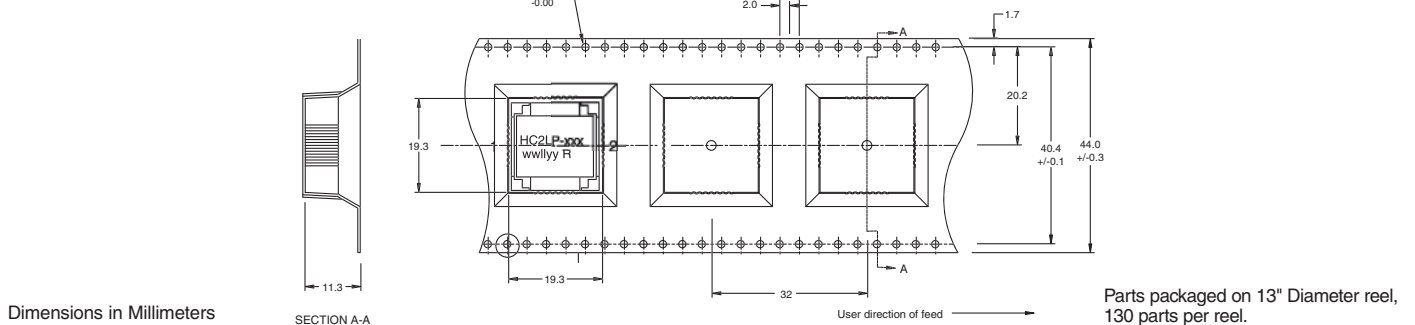
- 1) Open Circuit Inductance Test Parameters: 300kHz, 0.250 Vrms, 0.0 Adc
- 2) DC current for an approximate temperature change of 40°C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow and proximity of other heat generating components will affect the temperature rise. It is recommended that the temperature of the part not exceed 125°C under

- 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.

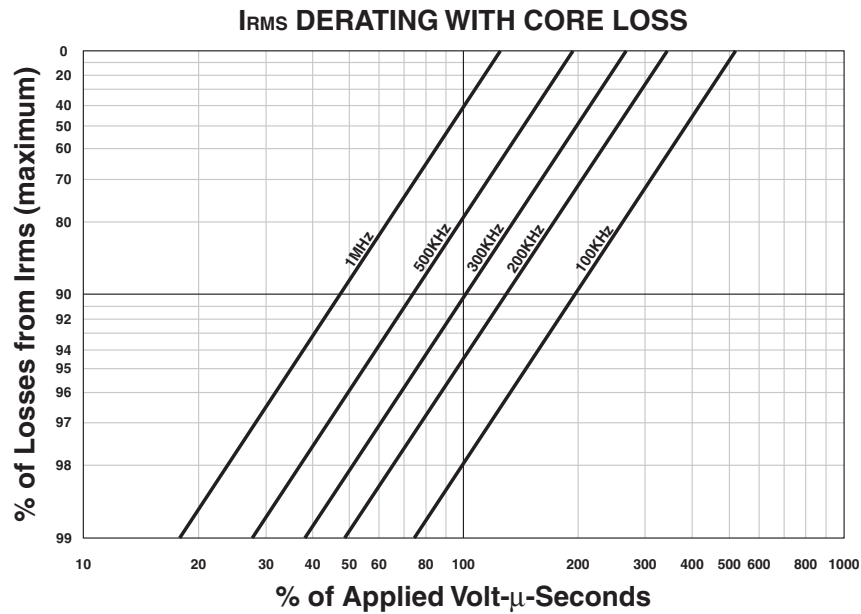
Mechanical Diagrams



Packaging Information



Core Loss



Inductance Characteristics

