



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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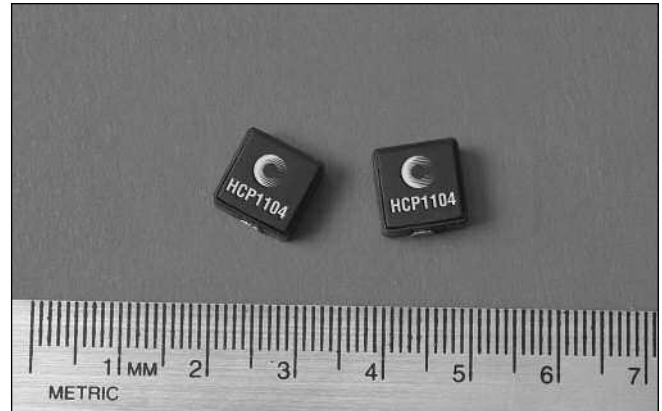
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Description

- 125°C maximum total temperature operation
- Low profile surface mount inductors
- 10mm x 11.5mm x 4.0mm package
- Pressed powder iron core material
- Enhanced core coating eliminates rusting and provides high insulation impedance
- Inductance range from 0.2μH to 0.9μH
- Current range from 42.0 Amps to 22 Amps
- Frequency range up to 1MHz



Applications

- Notebook power
- VRM, multi-phase buck regulator
- DC-DC converters
- PC workstations/Servers
- Routers

Environmental Data

- Storage temperature range: -55°C to +125°C
- Operating temperature range: -55°C to +125°C (range is application specific)
- Solder reflow temperature: +260°C max. for 10 seconds maximum

Packaging

- Supplied in tape and reel packaging, 950 parts per reel

Part Number	Rated Inductance (μH)	OCL (1) μH ± 20%	Irms (2) Amperes	Isat (3) Amperes	DCR mΩ@20°C (Typical)	DCR mΩ@20°C (Maximum)	K-factor (4)
HCP1104-R20-R	0.20	0.20	32	42	0.7	0.9	505
HCP1104-R36-R	0.36	0.36	30	40	1.0	1.2	289
HCP1104-R45-R	0.45	0.45	30	35	1.25	1.4	334
HCP1104-R56-R	0.56	0.56	25	32	1.60	1.8	287
HCP1104-R90-R	0.90	0.90	22	25	2.30	2.5	168

(1) Open Circuit Inductance Test Parameters: 100kHz, 0.25V, 0.0Adc.

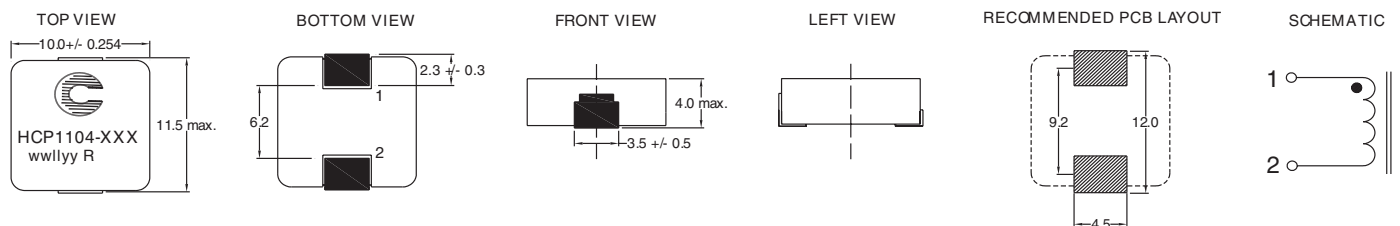
(2) Irms: DC current for an approximate ΔT of 40°C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow, and proximity of other heat generating components will affect the temperature rise. It is recommended that the temperature of the part not exceed 125°C under worst case operating conditions verified in the end application.

(3) Isat Amperes peak for approximately 20% rolloff (@20°C)

(4) K-factor: Used to determine B p-p for core loss (see graph).

B p-p = K*L*ΔI, B-p-p: (Gauss), K: (K factor from table), L: (Inductance in uH), ΔI (Peak to peak ripple current in Amps).

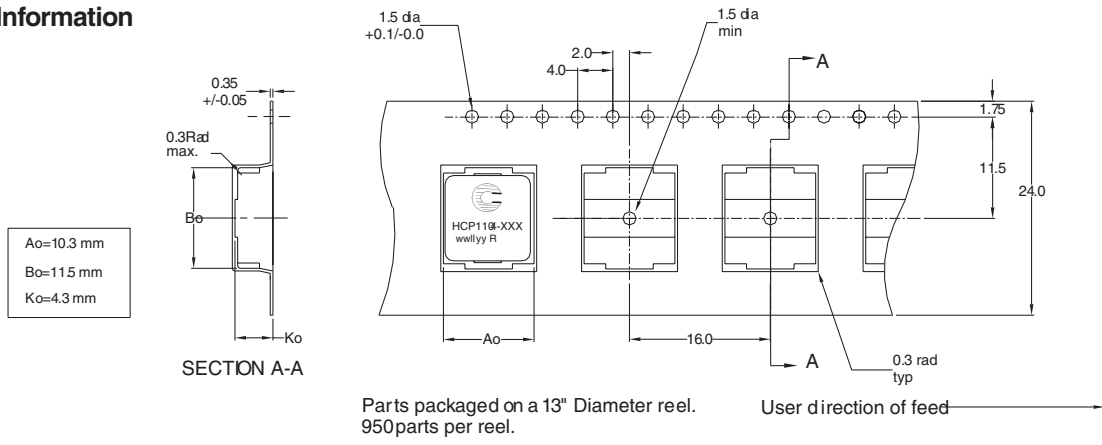
Mechanical Diagrams



Dimensions are in millimeters.

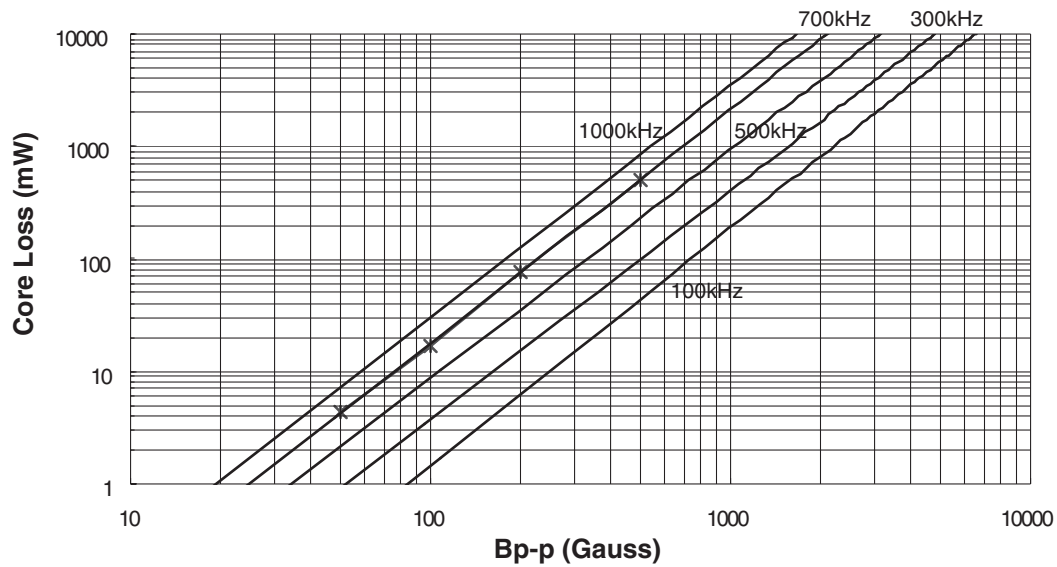
wwlly = Date Code. R = Revision Level.

Packaging Information



Core Loss

Core Loss vs Bp-p



Performance Graphs

