

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 μH	OCL (1) μH ± 20%	I _{rms} (2) Amperes (Typ.)	I _{sat} (3) Amperes (Typ.)	DCR (4) Ohms (Max.)	Volts (5) μSec
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 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.

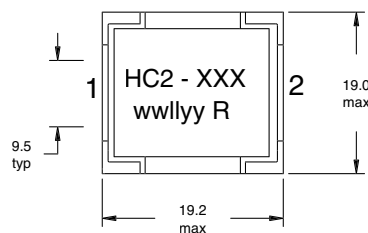
3) Peak current for approximately 30% roll-off

4) Values @ 20°C

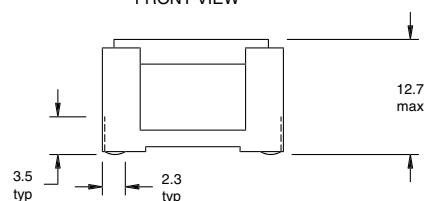
5) Applied Volt-Time product (V-μS) across the inductor. This value represents the
 applied V-μS at 300kHz necessary to generate a core loss equal to 10% of the
 total losses for 40°C temperature rise.

Mechanical Diagrams

TOP VIEW

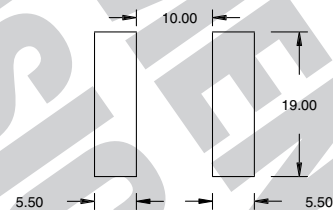


FRONT VIEW

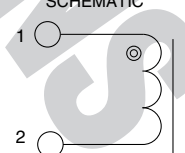


Dimensions in Millimeters

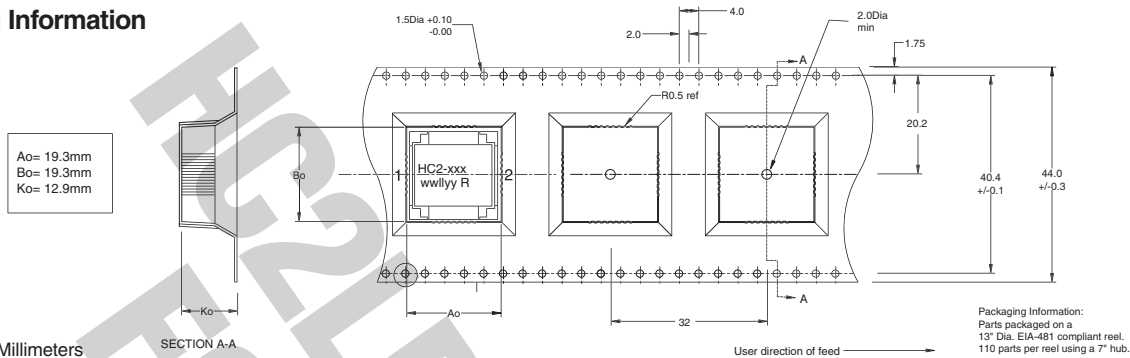
RECOMMENDED PCB PAD LAYOUT



SCHEMATIC



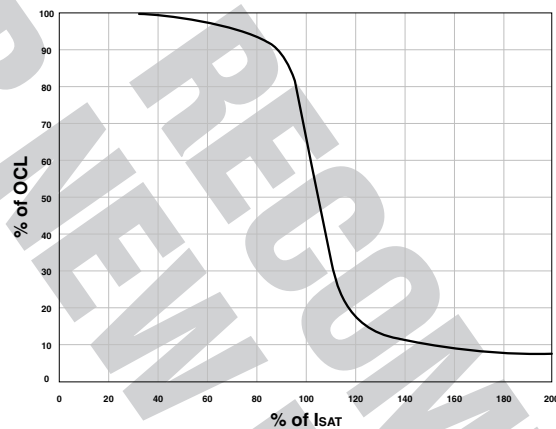
Packaging Information



Dimensions in Millimeters

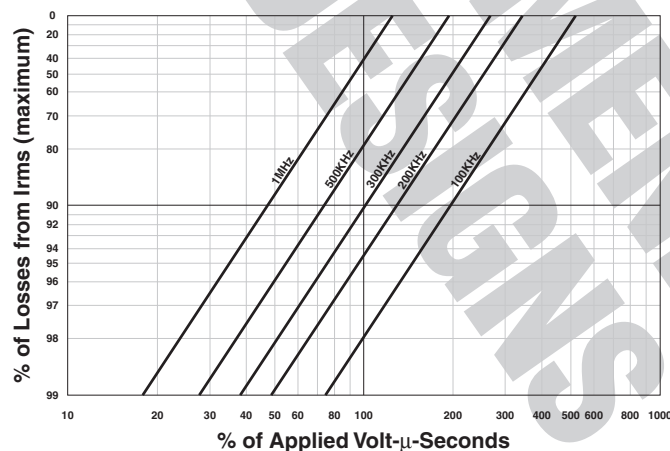
Rolloff

INDUCTANCE VERSUS SATURATION CURRENT



Core Loss

IRMS DERATING WITH CORE LOSS



AMEYA360

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Authorized Distribution Brand :



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