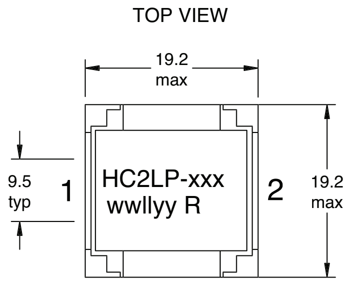
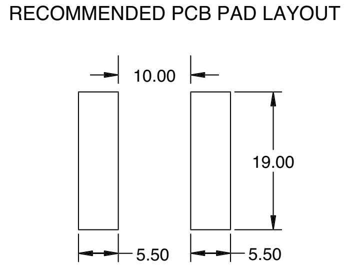
Product specifications

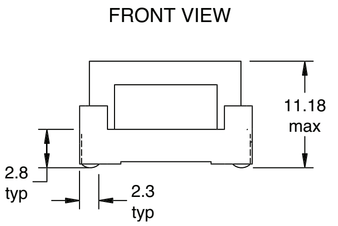
Part number	**OCL[1] (µH) ±20%**	**I_{rms}[2] amps (approx.)**	**I_{sat}[3] amps (approx.)**	**DCR[4] (Ω) maximum @ 20°C**	**Volt-µsec[5] (V-µs)**
HC2LP-R47-R	.52	52.9	63.75	.0006	6.87
HC2LP-R68-R	.63	52.9	50.00	.0006	6.87
HC2LP-1R0-R	1.15	33.0	42.50	.0013	10.31
HC2LP-2R2-R	2.00	24.3	31.90	.0023	13.75
HC2LP-4R7-R	4.55	17.0	21.25	.0046	20.62
HC2LP-6R0-R	6.00	17.0	16.50	.0046	20.62

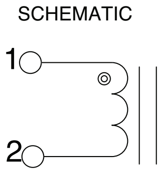
1. Open Circuit Inductance Test Parameters: 300kHz, 0.250 Vrms, 0.0 Adc
2. DC current for an approximate temperature change of 40°C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow and proximity of other heat generating components will affect the 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% rolloff.
4. Values @ 20°C
5. Applied Volt-Time product (V-µs) across the inductor. This value represents the applied V-µs at 300KHz neccessary to generate a core loss equal to 10% of the total losses for 40°C temperature rise.

Dimensions–mm





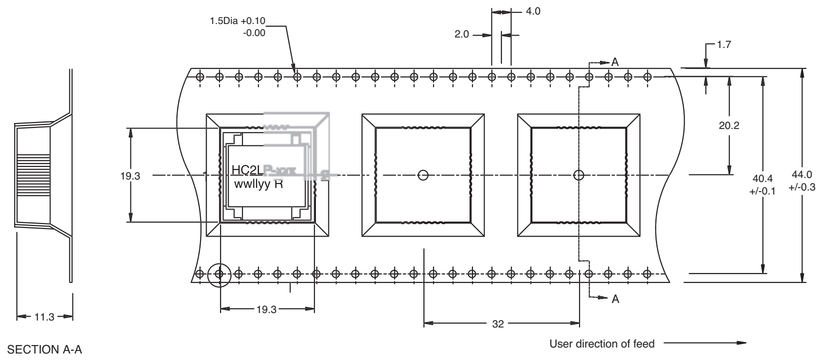




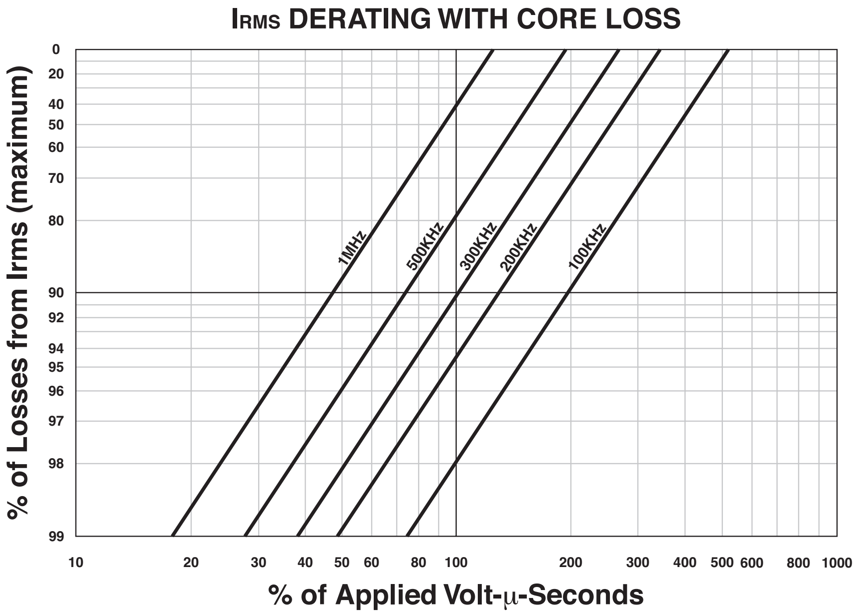
xxx = Inductance value
wwllyy = Date code R = Revision level

Packaging information (mm)

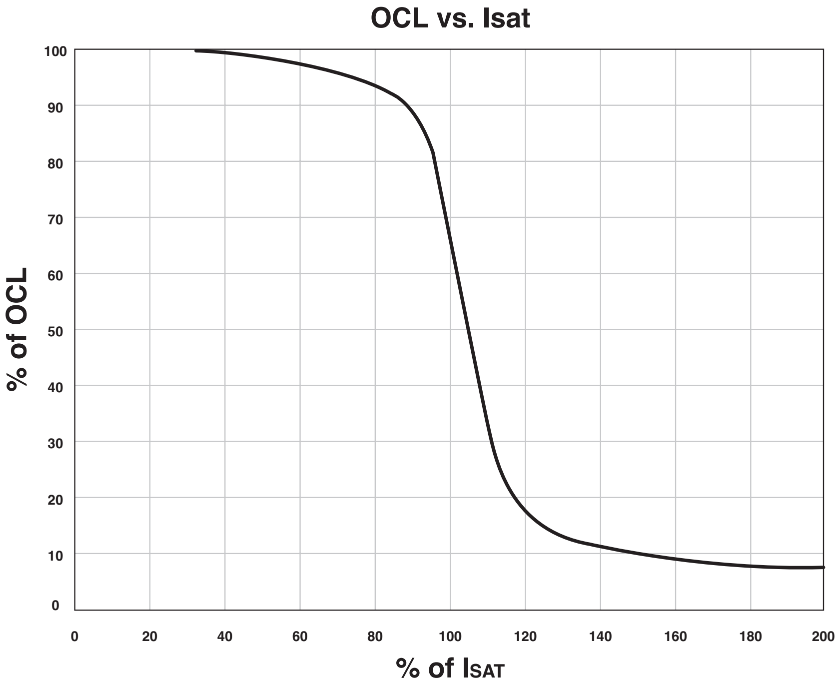
Supplied in tape and reel packaging, 130 parts per 13” reel.



Core loss



Inductance Characteristics



Solder reflow profile

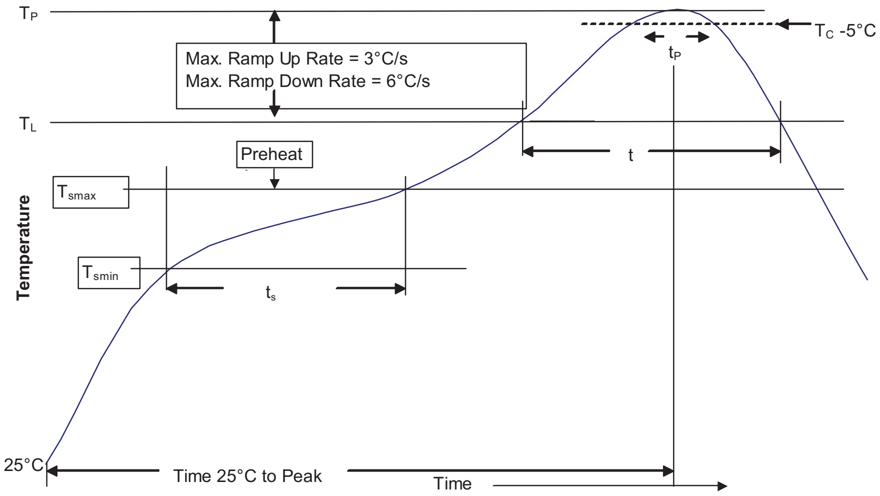


Table 1 - Standard SnPb Solder (T$_C$)

Package Thickness	Volume mm3 <350	Volume mm3 ≥350
<2.5mm)	235°C	220°C
≥2.5mm	220°C	220°C

Table 2 - Lead (Pb) Free Solder (T$_C$)

Package Thickness	Volume mm³ <350	Volume mm³ 350 - 2000	Volume mm³ >2000
<1.6mm	260°C	260°C	260°C
1.6 – 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

Reference JDEC J-STD-020D

Profile Feature		Standard SnPb Solder	Lead (Pb) Free Solder
Preheat and Soak	• Temperature min. (T$_{smin}$)	100°C	150°C
	• Temperature max. (T$_{smax}$)	150°C	200°C
	• Time (T$_{smin}$ to T$_{smax}$) (t$_s$)	60-120 Seconds	60-120 Seconds
Average ramp up rate T$_{smax}$ to T$_p$		3°C/ Second Max.	3°C/ Second Max.
Liquidous temperature (T$_L$) Time at liquidous (t$_L$)		183°C 60-150 Seconds	217°C 60-150 Seconds
Peak package body temperature (Tp)*		Table 1	Table 2
Time (t$_p$)** within 5 °C of the specified classification temperature (T$_C$)		20 Seconds**	30 Seconds**
Average ramp-down rate (T$_p$ to T$_{smax}$)		6°C/ Second Max.	6°C/ Second Max.
Time 25°C to Peak Temperature		6 Minutes Max.	8 Minutes Max.

* Tolerance for peak profile temperature (T$_p$) is defined as a supplier minimum and a user maximum.
** Tolerance for time at peak profile temperature (t$_p$) is defined as a supplier minimum and a user maximum.

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