



# HIGH CURRENT POWER INDUCTORS

## HCB1107 SERIES

### FEATURES:

- High current carrying capacity
- Low core loss
- Inductance range from 120nH to 510nH
- Current range from 18A to 90A
- Ferrite core material

### OPTIONS:

- Tape & Reel is Standard
- Bulk packaging Available for Smaller Quantities

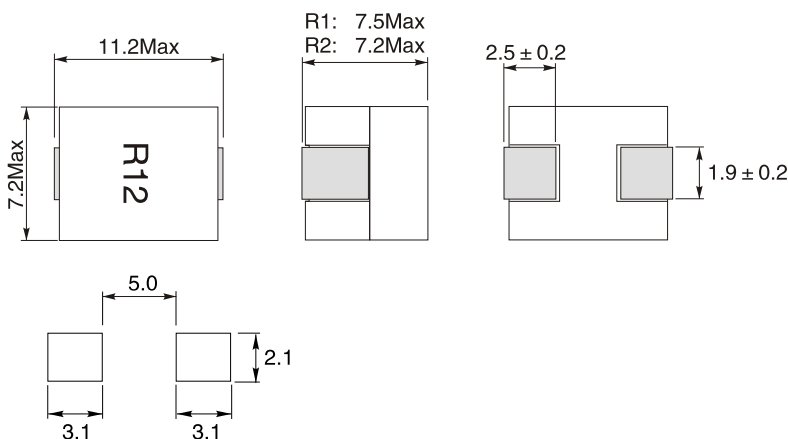
### APPLICATIONS:

- Portable electronics
- Servers and workstations
- Data networking and storage systems
- Notebook and desktop computers
- Graphics cards and battery power systems
- Multi-phase regulators
- Voltage regulator module(VRM)

### ELECTRICAL CHARACTERISTICS:

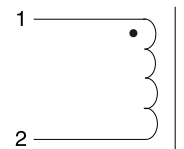
Part Number	Inductance (nH) $\pm 10\%$ @0A <sub>dc</sub>	Inductance (nH)Min @Isat1	Heat rating current DC Amps Irms(A)	Saturation current DC Amps Isat1(A)	Saturation current DC Amps Isat2(A)	DCR@25 °C (mΩ)
HCB1107R1-R12K	120	86	55	90	72	0.29 $\pm 5\%$
HCB1107R1-R15K	150	108	55	70	56	0.29 $\pm 5\%$
HCB1107R1-R23K	230	166	55	45	36	0.29 $\pm 5\%$
HCB1107R1-R30K	300	217	55	35	28	0.29 $\pm 5\%$
HCB1107R1-R40K	400	288	55	25	20	0.29 $\pm 5\%$
HCB1107R1-R51K	510	364	55	18	14.5	0.29 $\pm 5\%$
HCB1107R2-R12K	120	86	42	90	72	0.47 $\pm 6\%$
HCB1107R2-R15K	150	108	42	70	56	0.47 $\pm 6\%$
HCB1107R2-R23K	230	166	42	45	36	0.47 $\pm 6\%$
HCB1107R2-R30K	300	217	42	35	28	0.47 $\pm 6\%$
HCB1107R2-R40K	400	288	42	25	20	0.47 $\pm 6\%$
HCB1107R2-R51K	510	364	42	18	14.5	0.47 $\pm 6\%$

### DIMENSIONS(mm) :



Recommended pad layout

### SCHEMATIC :



### NOTES:

- Test Frequency : 100KHz / 0.1V@25°C
- Irms: DC current for an approximate temperature rise of 40°C without core loss
- Isat1: Peak current for approximately 20% rolloff at +25°C
- Isat2: Peak current for approximately 20% rolloff at +125°C
- Operating temperature: -40°C to +125°C(ambient plus self-temperature rise)
- Storage temperature: -40°C to +125°C

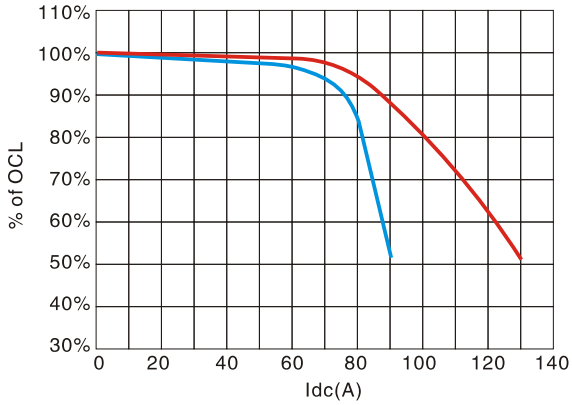


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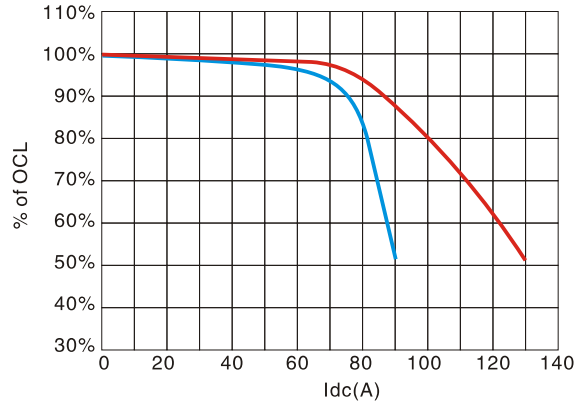
## HCB1107 SERIES

### INDUCTANCE CHARACTERISTICS:

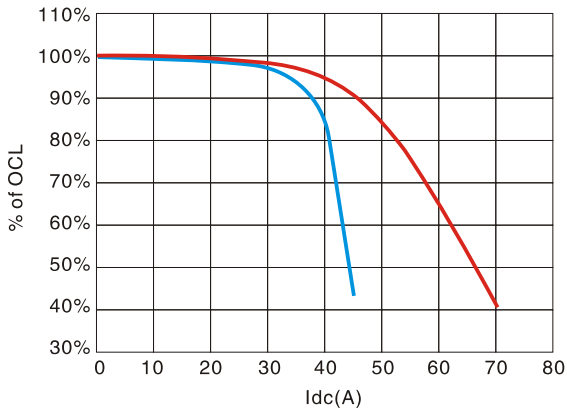
HCB1107RX-R12K



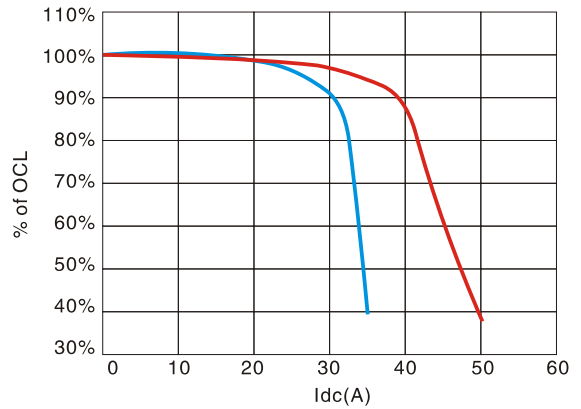
HCB1107RX-R15K



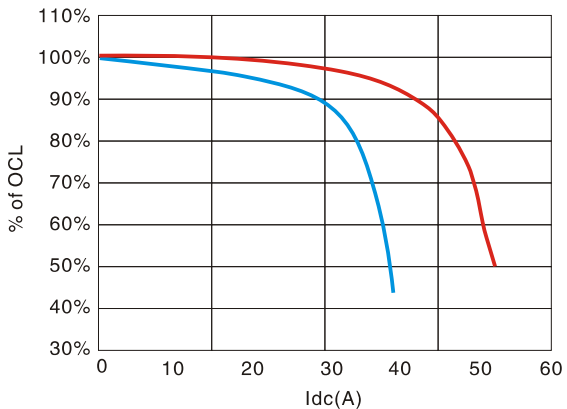
HCB1107RX-R23K



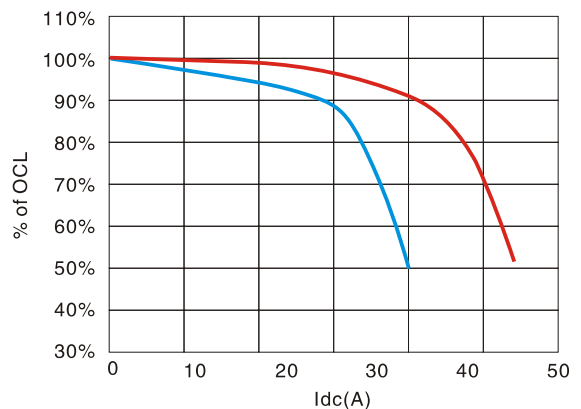
HCB1107RX-R30K



HCB1107RX-R40K



HCB1107RX-R51K



— +25°C      — +125°C