

# HIGH CURRENT POWER INDUCTORS

## HCB0705 SERIES

### FEATURES:

- High current carrying capacity
- Low core loss
- Inductance range from 72nH to 226nH
- Current range from 20A to 65A
- Ferrite core material

### OPTIONS:

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

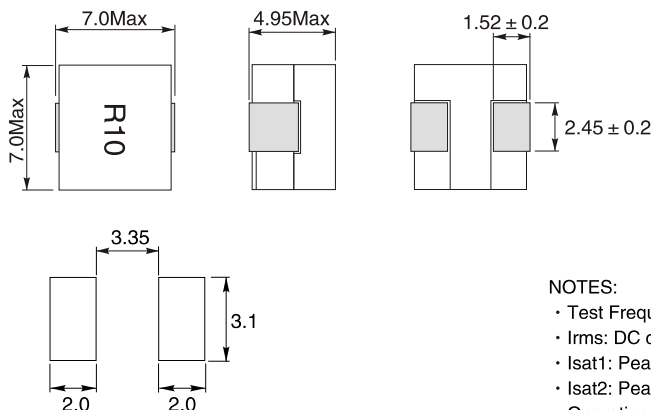
### APPLICATIONS:

- 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:

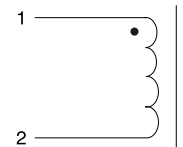
Part Number	Inductance (nH) $\pm 10\%$ @0Adc	Inductance (nH)Min @Isat1	Heat rating current DC Amps Irms(A)	Saturation current DC Amps Isat1(A)	Saturation current DC Amps Isat2(A)	DCR@25 °C (m $\Omega$ )
HCB0705R1-72NK	72	51	43	65	50	0.25 $\pm 8\%$
HCB0705R1-R10K	105	78	43	44	34	0.25 $\pm 8\%$
HCB0705R1-R12K	120	86	43	37	30	0.25 $\pm 8\%$
HCB0705R1-R15K	150	108	43	30	24	0.25 $\pm 8\%$
HCB0705R1-R18K	180	130	43	25	20	0.25 $\pm 8\%$
HCB0705R1-R22K	226	159	43	20	16	0.25 $\pm 8\%$
HCB0705R2-72NK	72	51	38	65	50	0.32 $\pm 7\%$
HCB0705R2-R10K	105	78	38	44	34	0.32 $\pm 7\%$
HCB0705R2-R12K	120	86	38	37	30	0.32 $\pm 7\%$
HCB0705R2-R15K	150	108	38	30	24	0.32 $\pm 7\%$
HCB0705R2-R18K	180	130	38	25	20	0.32 $\pm 7\%$
HCB0705R2-R22K	226	159	38	20	16	0.32 $\pm 7\%$
HCB0705R3-72NK	72	51	32	65	50	0.46 $\pm 6\%$
HCB0705R3-R10K	105	78	32	44	34	0.46 $\pm 6\%$
HCB0705R3-R12K	120	86	32	37	30	0.46 $\pm 6\%$
HCB0705R3-R15K	150	108	32	30	24	0.46 $\pm 6\%$
HCB0705R3-R18K	180	130	32	25	20	0.46 $\pm 6\%$
HCB0705R3-R22K	226	159	32	20	16	0.46 $\pm 6\%$

### DIMENSIONS(mm) :



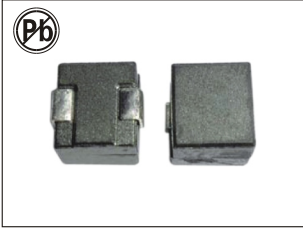
Recommended pad layout

### 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

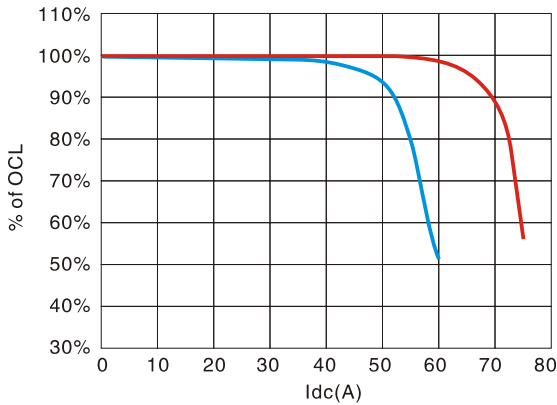


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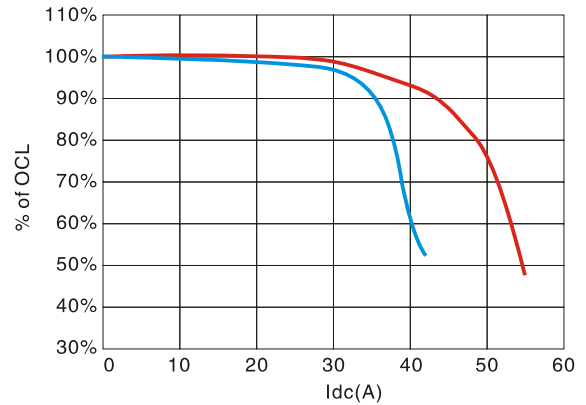
## HCB0705 SERIES

### INDUCTANCE CHARACTERISTICS:

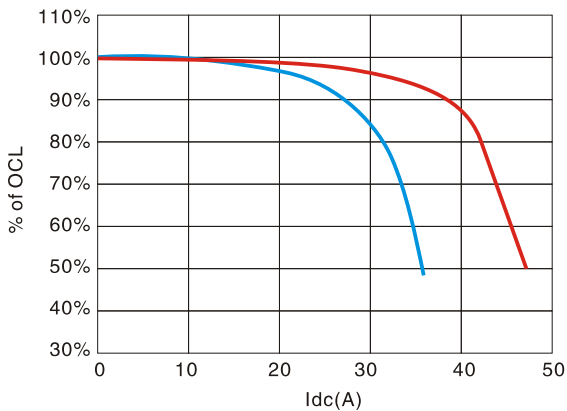
HCB0705RX-72NK



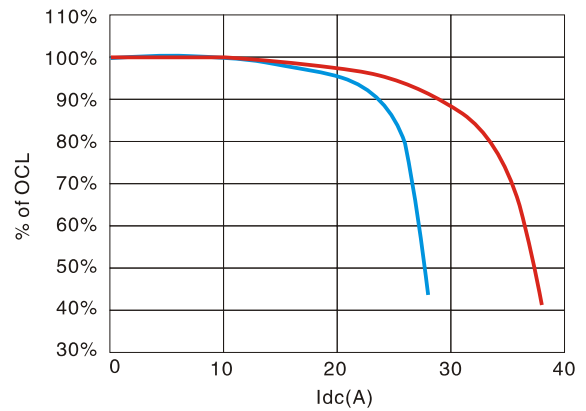
HCB0705RX-R10K



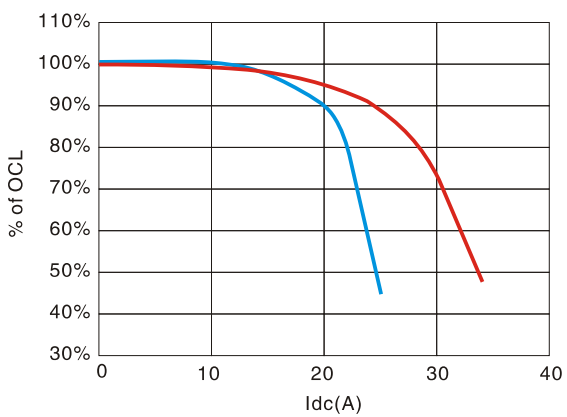
HCB0705RX-R12K



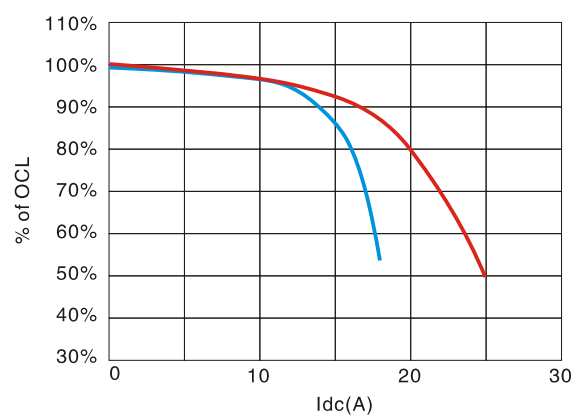
HCB0705RX-R15K



HCB0705RX-R18K



HCB0705RX-R22K



— +25°C      — +125°C