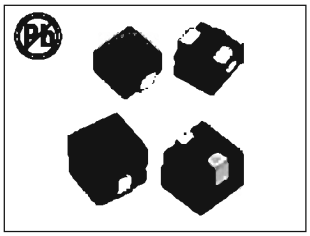


HIGH CURRENT POWER INDUCTORS

HCB0404 0505 SERIES

FEATURES:

- High current carrying capacity
- Low core loss
- Inductance range from 22nH to 110nH
- Current range from 14A to 40A
- Ferrite core material

OPTIONS:

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

APPLICATIONS:

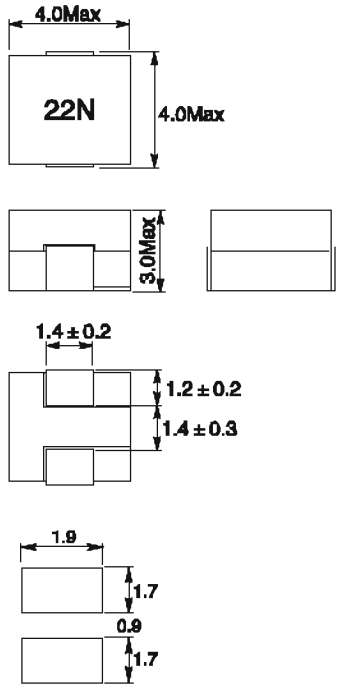
- Portable electronics
- Servers and workstations
- Data networking and storage systems
- Notebook and desktop computers
- Graphics cards and battery power systems
- Multi-phase regulators
- Voltage regulator module(VRM)

ELECTRICAL CHARACTERISTICS:

Part Number	Inductance (nH) ± 15% @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 ℃ (mΩ) ± 25%
HCB0404R1-22NM	22 ± 20%	15	19	40	32	0.32 ± 15%
HCB0404R1-65NY	65	44	19	24	20	0.32
HCB0404R1-80NY	80	54	19	20	16	0.32
HCB0404R1-R10Y	100	68	19	16	13	0.32
HCB0404R1-R11Y	110	74	19	14	12	0.32
HCB0505R1-R10K	100	68	30	34	24	0.38

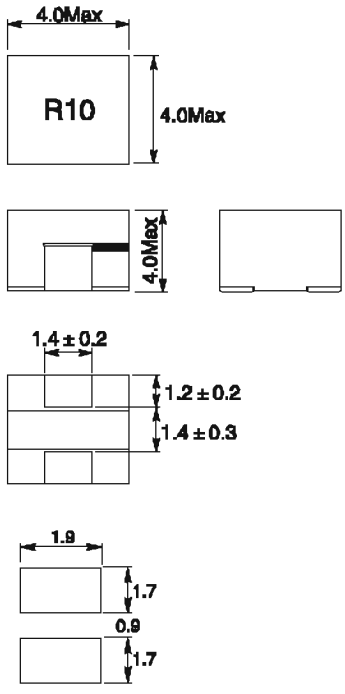
DIMENSIONS:(mm)

0404R1-22NM



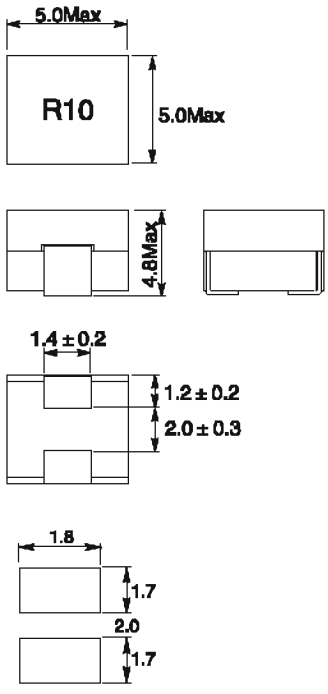
Recommended pad layout

0404R1-65NY,80NY,R10Y,R11Y



Recommended pad layout

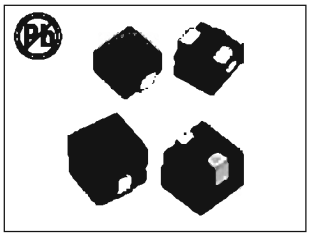
0505R1-R10K



Recommended pad layout

NOTES:

- Test Frequency : 100KHz / 0.1V@25℃ (1MHz/0.1V for 22NM)
- Irms: DC current for an approximate temperature rise of 40℃ without core loss
- Isat1: Peak current for approximately 20% rolloff at +25℃
- Isat2: Peak current for approximately 20% rolloff at +125℃
- Operating temperature: -40℃ to +125℃(ambient plus self-temperature rise)
- Storage temperature: -40℃ to +125℃

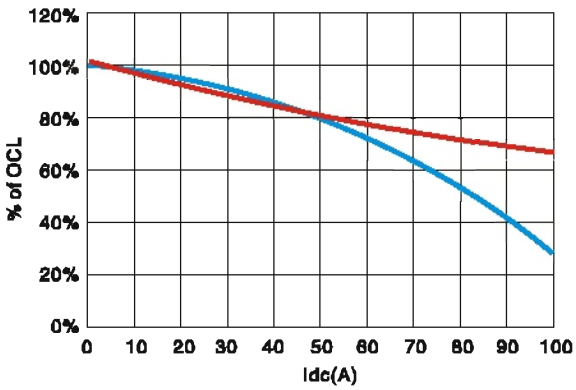


HIGH CURRENT POWER INDUCTORS

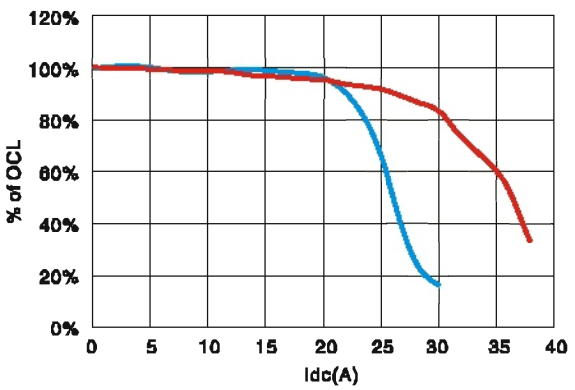
HCB0404 0505 SERIES

INDUCTANCE CHARACTERISICS:

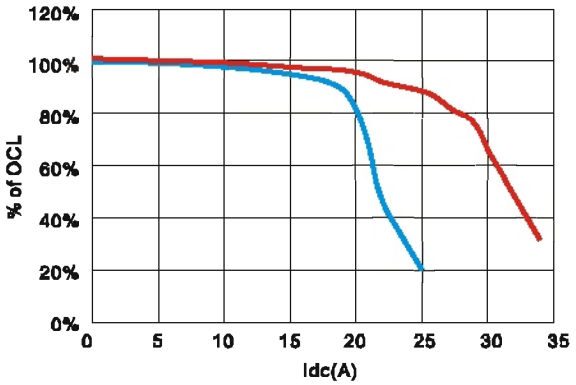
HCB0404R1-22NM



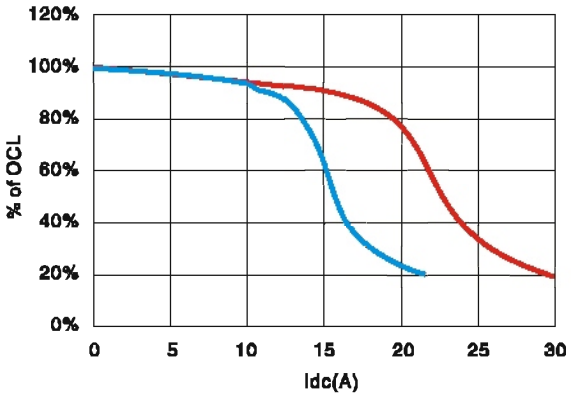
HCB0404R1-85NY



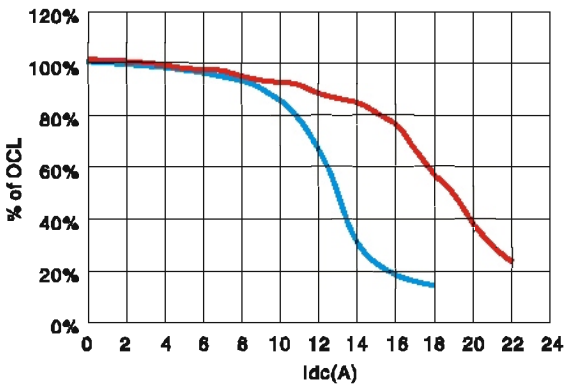
HCB0404R1-80NY



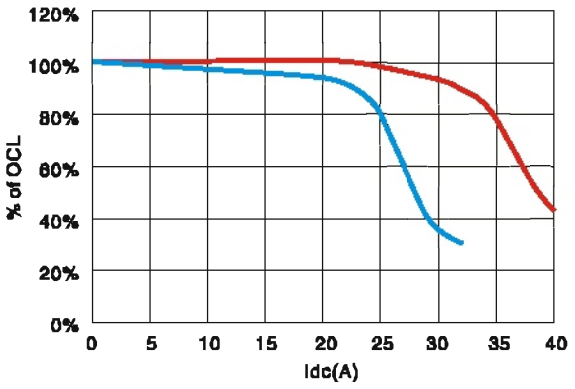
HCB0404R1-R10Y



HCB0404R1-R11Y

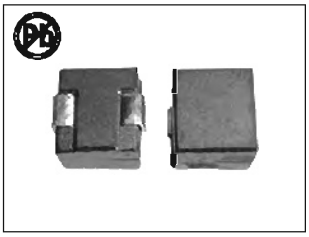


HCB0505R1-R10K



+25℃

+125℃



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

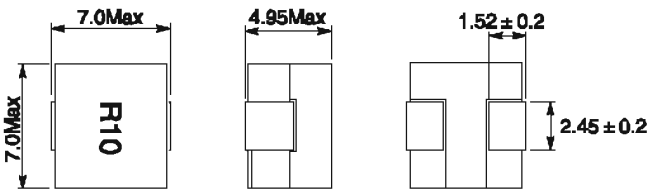
APPLICATIONS:

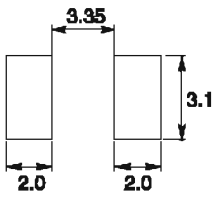
- Portable electronics
- Servers and workstations
- Data networking and storage systems
- Notebook and desktop computers
- Graphics cards and battery power systems
- Multi-phase regulators
- Voltage regulator module(VRM)

ELECTRICAL CHARACTERISTICS:

Part Number	Inductance (nH) ± 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 ℃ (mΩ)
HCB0705R1-72NK	72	51	43	65	50	0.25 ± 8%
HCB0705R1-R10K	105	78	43	44	34	0.25 ± 8%
HCB0705R1-R12K	120	86	43	37	30	0.25 ± 8%
HCB0705R1-R15K	150	108	43	30	24	0.25 ± 8%
HCB0705R1-R18K	180	130	43	25	20	0.25 ± 8%
HCB0705R1-R22K	226	159	43	20	16	0.25 ± 8%
HCB0705R2-72NK	72	51	38	65	50	0.32 ± 7%
HCB0705R2-R10K	105	78	38	44	34	0.32 ± 7%
HCB0705R2-R12K	120	86	38	37	30	0.32 ± 7%
HCB0705R2-R15K	150	108	38	30	24	0.32 ± 7%
HCB0705R2-R18K	180	130	38	25	20	0.32 ± 7%
HCB0705R2-R22K	226	159	38	20	16	0.32 ± 7%
HCB0705R3-72NK	72	51	32	65	50	0.46 ± 6%
HCB0705R3-R10K	105	78	32	44	34	0.46 ± 6%
HCB0705R3-R12K	120	86	32	37	30	0.46 ± 6%
HCB0705R3-R15K	150	108	32	30	24	0.46 ± 6%
HCB0705R3-R18K	180	130	32	25	20	0.46 ± 6%
HCB0705R3-R22K	226	159	32	20	16	0.46 ± 6%

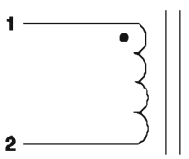
DIMENSIONS(mm) :





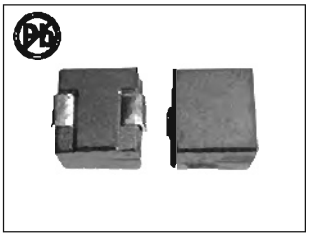
Recommended pad layout

SCHEMATIC :



NOTES:

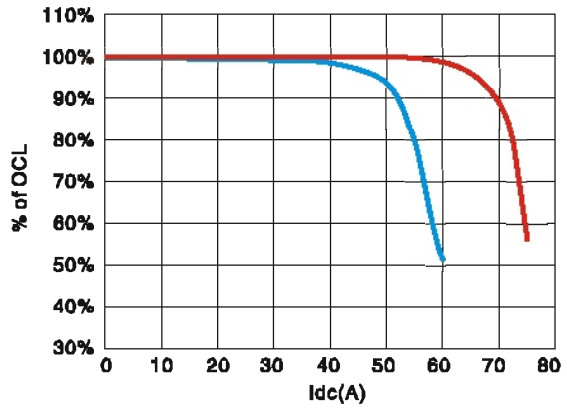
- Test Frequency : 100KHz / 0.1V@25℃
- Irms: DC current for an approximate temperature rise of 40℃ without core loss
- Isat1: Peak current for approximately 20% rolloff at +25℃
- Isat2: Peak current for approximately 20% rolloff at +125℃
- Operating temperature: –40℃ to +125℃(ambient plus self-temperature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



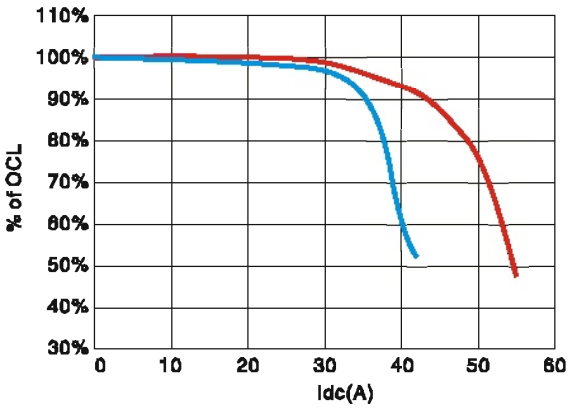
HIGH CURRENT POWER INDUCTORS
HCB0705 SERIES

INDUCTANCE CHARACTERISICS:

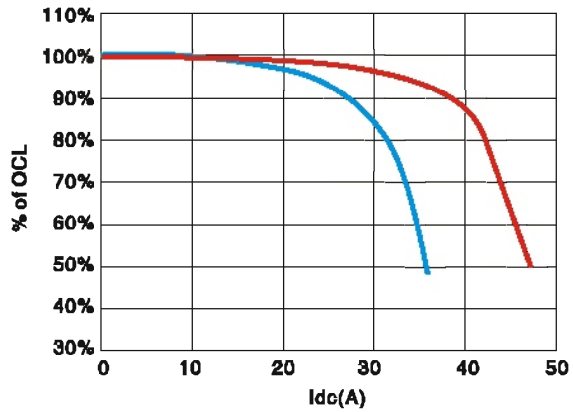
HCB0705RX-72NK



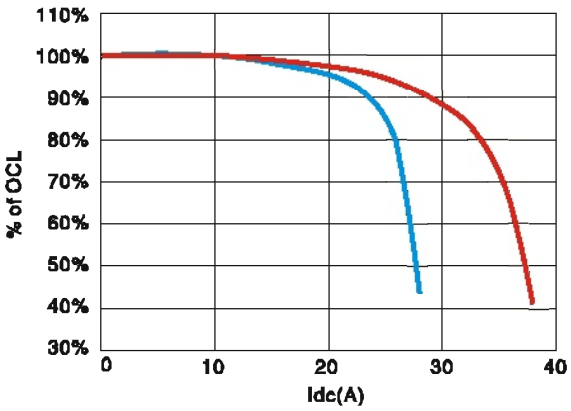
HCB0705RX-R10K



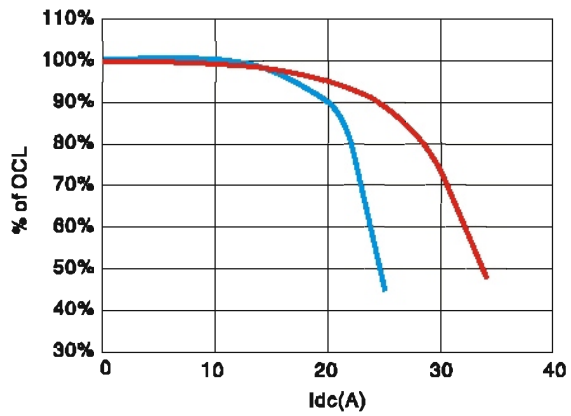
HCB0705RX-R12K



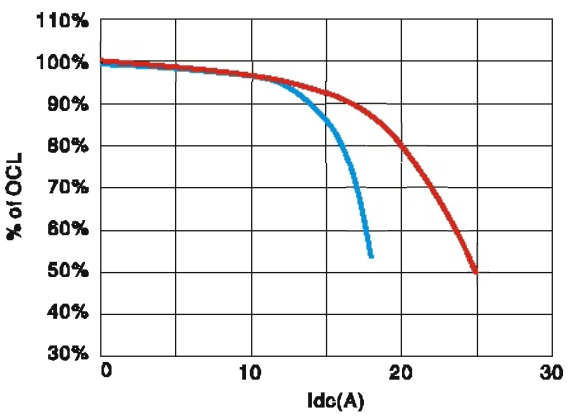
HCB0705RX-R15K



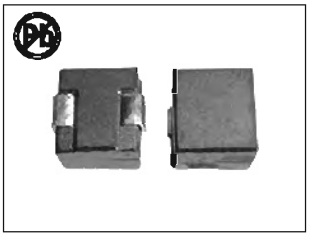
HCB0705RX-R18K



HCB0705RX-R22K



+25℃ +125℃



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

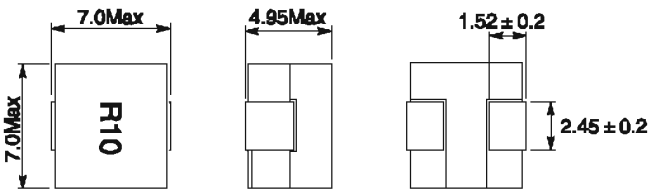
APPLICATIONS:

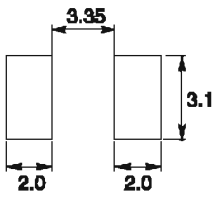
- Portable electronics
- Servers and workstations
- Data networking and storage systems
- Notebook and desktop computers
- Graphics cards and battery power systems
- Multi-phase regulators
- Voltage regulator module(VRM)

ELECTRICAL CHARACTERISTICS:

Part Number	Inductance (nH) ± 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℃ (mΩ)
HCB0705R1-72NK	72	51	43	65	50	0.25±8%
HCB0705R1-R10K	105	78	43	44	34	0.25±8%
HCB0705R1-R12K	120	86	43	37	30	0.25±8%
HCB0705R1-R15K	150	108	43	30	24	0.25±8%
HCB0705R1-R18K	180	130	43	25	20	0.25±8%
HCB0705R1-R22K	226	159	43	20	16	0.25±8%
HCB0705R2-72NK	72	51	38	65	50	0.32±7%
HCB0705R2-R10K	105	78	38	44	34	0.32±7%
HCB0705R2-R12K	120	86	38	37	30	0.32±7%
HCB0705R2-R15K	150	108	38	30	24	0.32±7%
HCB0705R2-R18K	180	130	38	25	20	0.32±7%
HCB0705R2-R22K	226	159	38	20	16	0.32±7%
HCB0705R3-72NK	72	51	32	65	50	0.46±6%
HCB0705R3-R10K	105	78	32	44	34	0.46±6%
HCB0705R3-R12K	120	86	32	37	30	0.46±6%
HCB0705R3-R15K	150	108	32	30	24	0.46±6%
HCB0705R3-R18K	180	130	32	25	20	0.46±6%
HCB0705R3-R22K	226	159	32	20	16	0.46±6%

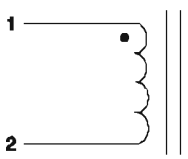
DIMENSIONS(mm) :





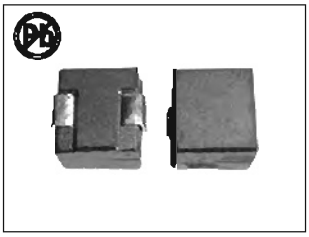
Recommended pad layout

SCHEMATIC :



NOTES:

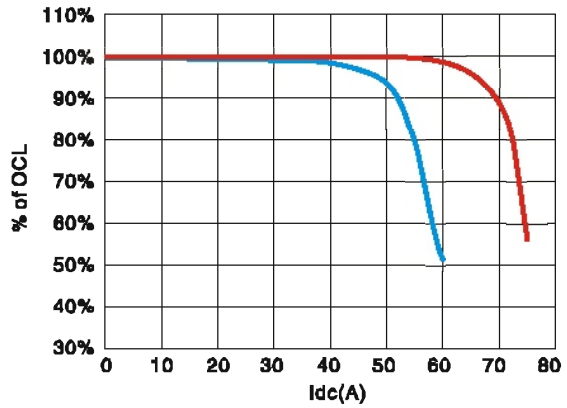
- Test Frequency : 100KHz / 0.1V@25℃
- Irms: DC current for an approximate temperature rise of 40℃ without core loss
- Isat1: Peak current for approximately 20% rolloff at +25℃
- Isat2: Peak current for approximately 20% rolloff at +125℃
- Operating temperature: -40℃ to +125℃(ambient plus self-temperature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



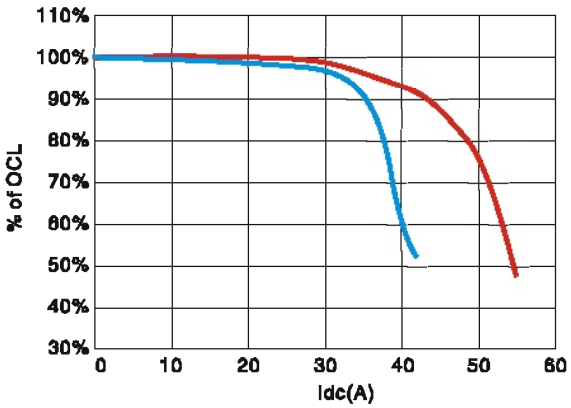
HIGH CURRENT POWER INDUCTORS
HCB0705 SERIES

INDUCTANCE CHARACTERISICS:

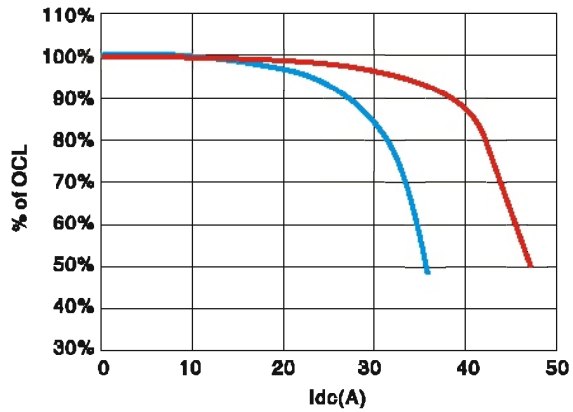
HCB0705RX-72NK



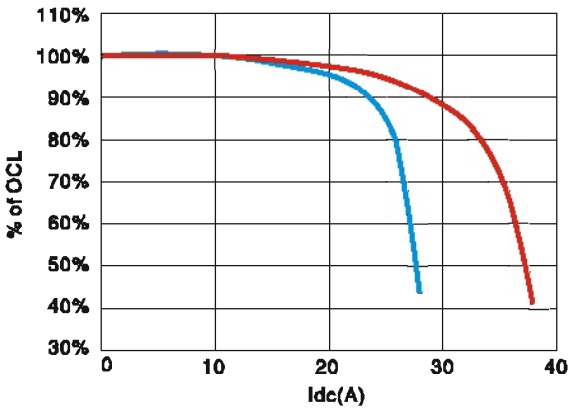
HCB0705RX-R10K



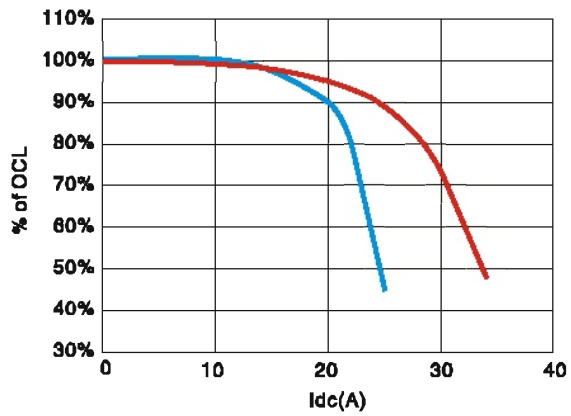
HCB0705RX-R12K



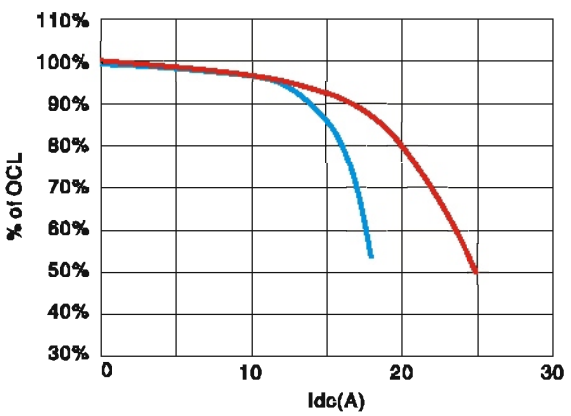
HCB0705RX-R15K



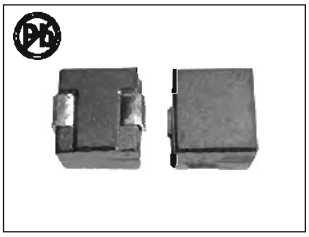
HCB0705RX-R18K



HCB0705RX-R22K



+25℃ +125℃



HIGH CURRENT POWER INDUCTORS

HCB0805 SERIES

FEATURES:

- High current carrying capacity
- Low core loss
- Inductance range from 32nH to 200nH
- Current range from 20A to 110A
- Ferrite core material

OPTIONS:

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

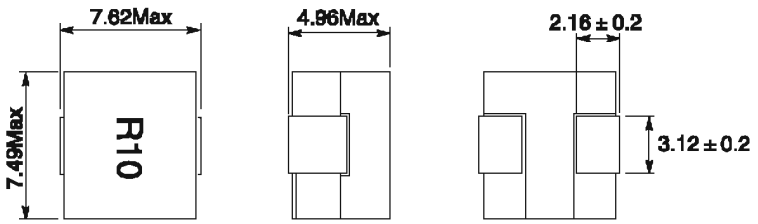
APPLICATIONS:

- 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)

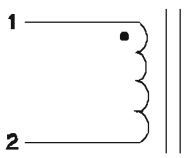
ELECTRICAL CHARACTERISTICS:

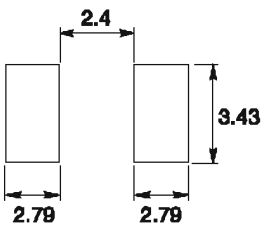
Part Number	Inductance (nH) ± 10% @0Adc	Inductance (nH)Min @Isat1	Heat rating current DC Amps Irms(A)	Saturation current DC Amps Isat1(A)	Saturation current DC Amps Isat2(A)	DCR@25 ℃ (mΩ)
HCB0805R1-32NK	32	23	65	110	95	0.17±8%
HCB0805R1-58NK	58	42	65	83	61	0.17±8%
HCB0805R1-72NK	72	52	65	67	49	0.17±8%
HCB0805R1-R10K	100	72	65	50	35	0.17±8%
HCB0805R1-R20K	200	144	65	20	16	0.17±8%

DIMENSIONS(mm) :



SCHEMATIC :

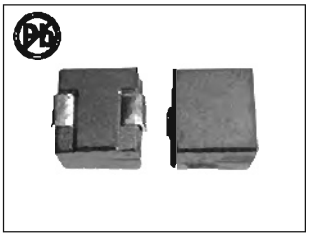




Recommended pad layout

NOTES:

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

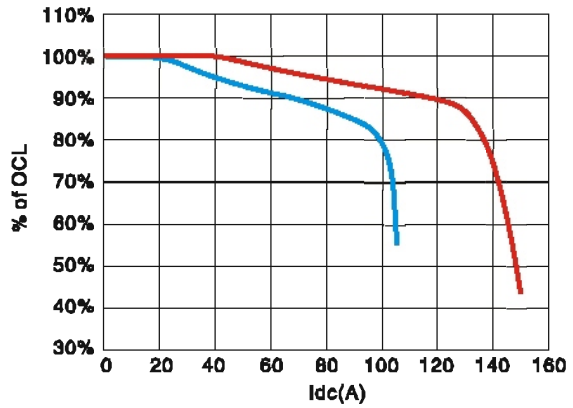


HIGH CURRENT POWER INDUCTORS

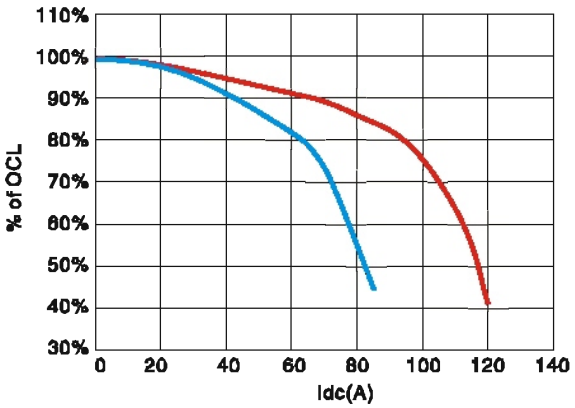
HCB0805 SERIES

INDUCTANCE CHARACTERISICS:

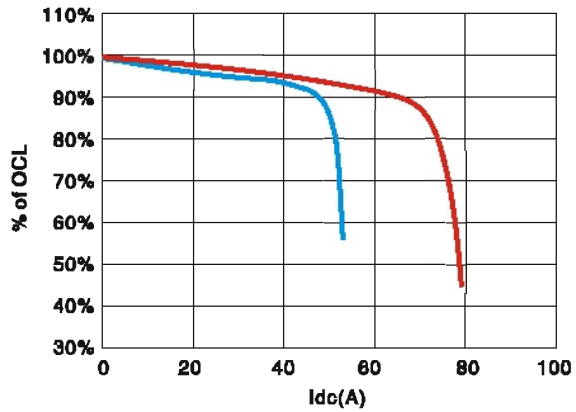
HCB0805R1-32NK



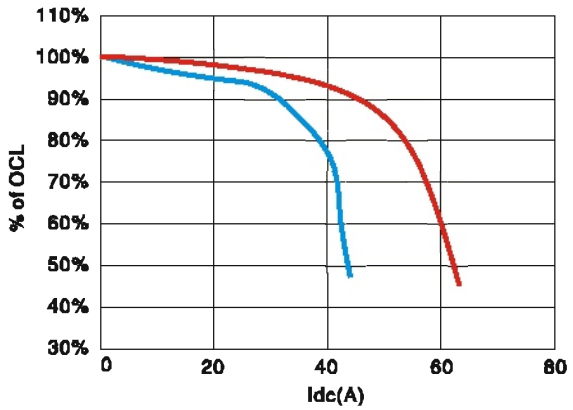
HCB0805R1-58NK



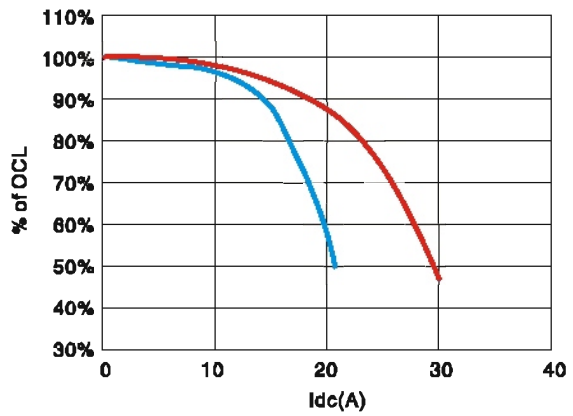
HCB0805R1-72NK



HCB0805R1-R10K



HCB0805R1-R20K



HIGH CURRENT POWER INDUCTORS

HCB0906 SERIES

FEATURES:

- High current carrying capacity
- Low core loss
- Inductance range from 100nH to 300nH
- Current range from 32.5A to 94A
- Ferrite core material

OPTIONS:

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

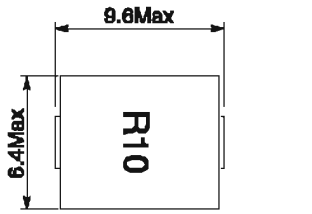
APPLICATIONS:

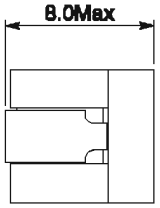
- Portable electronics
- Servers and workstations
- Data networking and storage systems
- Notebook and desktop computers
- Graphics cards and battery power systems
- Multi-phase regulators
- Voltage regulator module(VRM)

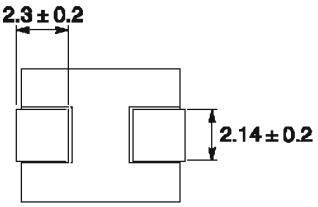
ELECTRICAL CHARACTERISTICS:

Part Number	Inductance (nH) ± 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℃ (mΩ)
HCB0906R1-R10K	100	72	51	94	81	0.29±5%
HCB0906R1-R12K	120	86	51	79	68	0.29±5%
HCB0906R1-R15K	150	108	51	65	54.5	0.29±5%
HCB0906R1-R22K	220	155	51	44	37.5	0.29±5%
HCB0906R1-R28K	280	200	51	34	29	0.29±5%
HCB0906R1-R30K	300	216	51	32.5	27.5	0.29±5%

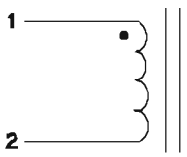
DIMENSIONS(mm) :

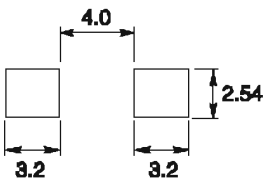






SCHEMATIC :





Recommended pad layout

NOTES:

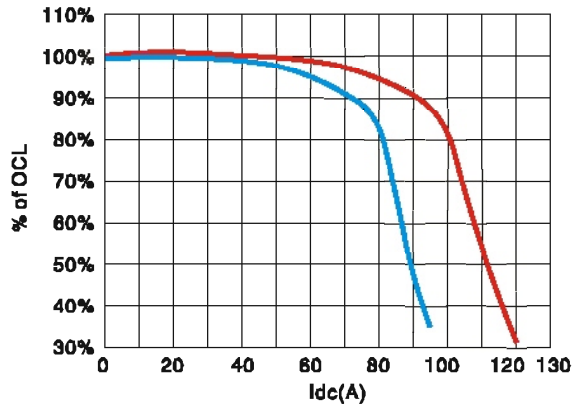
- Test Frequency : 100KHz / 0.1V@25℃
- Irms: DC current for an approximate temperature rise of 40℃ without core loss
- Isat1: Peak current for approximately 20% rolloff at +25℃
- Isat2: Peak current for approximately 20% rolloff at +125℃
- Operating temperature: -40℃ to +125℃(ambient plus self-temperature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

HIGH CURRENT POWER INDUCTORS

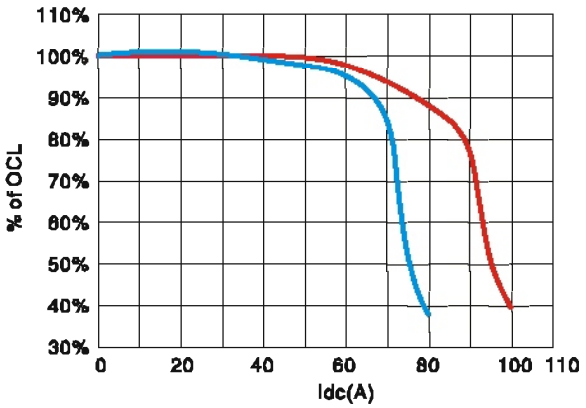
HCB0906 SERIES

INDUCTANCE CHARACTERISICS:

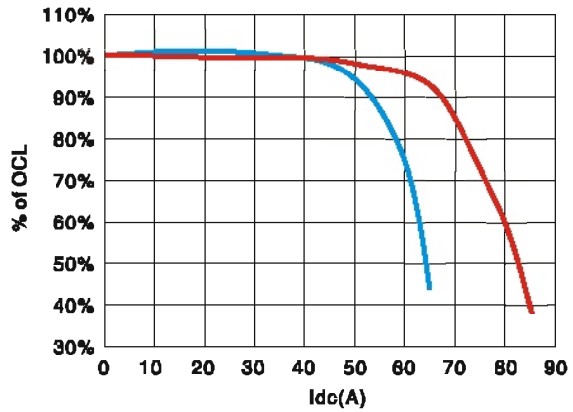
HCB0906R1-R10K



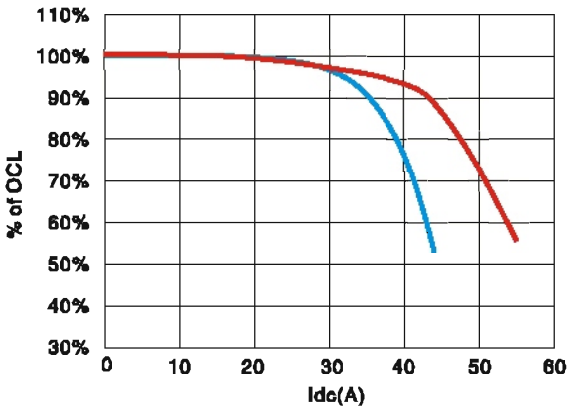
HCB0906R1-R12K



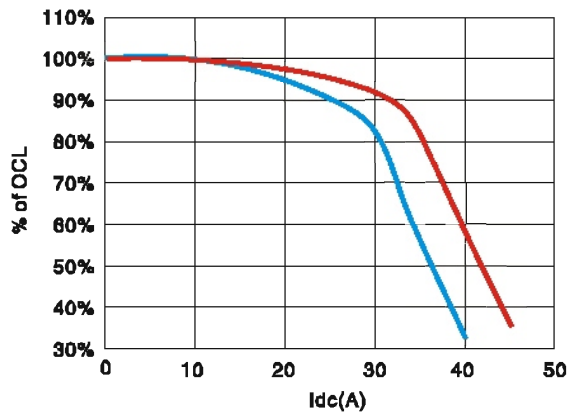
HCB0906R1-R15K



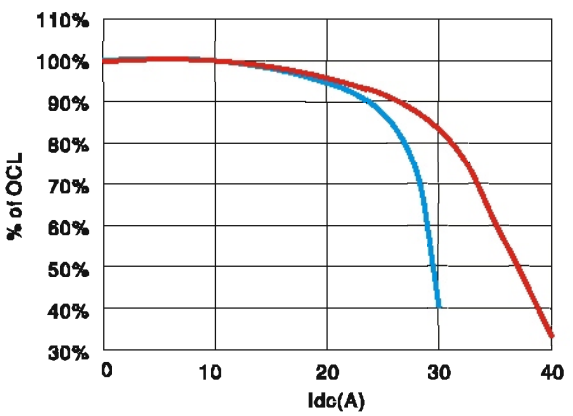
HCB0906R1-R22K



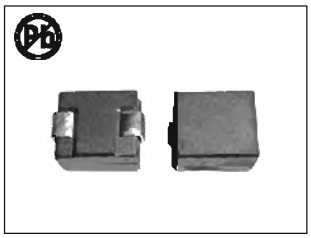
HCB0906R1-R28K



HCB0906R1-R30K



+25℃ +125℃



HIGH CURRENT POWER INDUCTORS

HCB1005 SERIES

FEATURES:

- High current carrying capacity
- Low core loss
- Inductance range from 80nH to 220nH
- Current range from 33A to 90A
- Ferrite core material

OPTIONS:

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

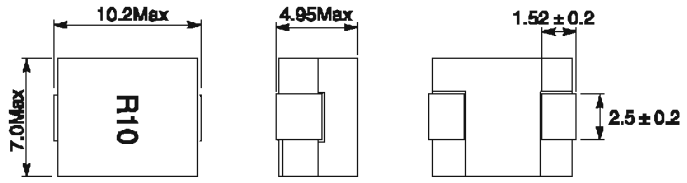
APPLICATIONS:

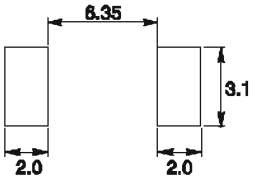
- Portable electronics
- Servers and workstations
- Data networking and storage systems
- Notebook and desktop computers
- Graphics cards and battery power systems
- Multi-phase regulators
- Voltage regulator module(VRM)

ELECTRICAL CHARACTERISTICS:

Part Number	Inductance (nH) ± 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℃ (mΩ)
HCB1005R1-80NK	80	60	53	90	64	0.39±7.5%
HCB1005R1-R10K	100	72	53	73	57	0.39±7.5%
HCB1005R1-R12K	120	86	53	60	48	0.39±7.5%
HCB1005R1-R15K	150	108	53	47	37	0.39±7.5%
HCB1005R1-R22K	220	158	53	33	26	0.39±7.5%
HCB1005R2-80NK	80	60	50	90	64	0.47±6.5%
HCB1005R2-R10K	100	72	50	73	57	0.47±6.5%
HCB1005R2-R12K	120	86	50	60	48	0.47±6.5%
HCB1005R2-R15K	150	108	50	47	37	0.47±6.5%
HCB1005R2-R22K	220	158	50	33	26	0.47±6.5%
HCB1005R3-80NK	80	60	50	90	64	0.55±5.4%
HCB1005R3-R10K	100	72	50	73	57	0.55±5.4%
HCB1005R3-R12K	120	86	50	60	48	0.55±5.4%
HCB1005R3-R15K	150	108	50	47	37	0.55±5.4%
HCB1005R3-R22K	220	158	50	33	26	0.55±5.4%
HCB1005R4-80NK	80	60	53	90	64	0.31±7.0%
HCB1005R4-R10K	100	72	53	73	57	0.31±7.0%
HCB1005R4-R12K	120	86	53	60	48	0.31±7.0%
HCB1005R4-R15K	150	108	53	47	37	0.31±7.0%
HCB1005R4-R22K	220	158	53	33	26	0.31±7.0%

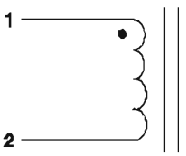
DIMENSIONS(mm) :





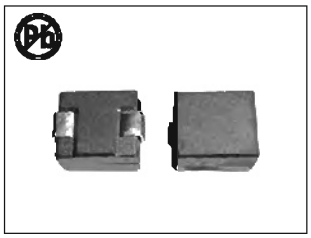
Recommended pad layout

SCHEMATIC :



NOTES:

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

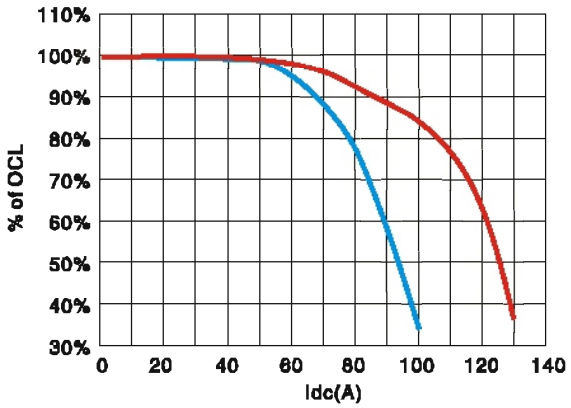


HIGH CURRENT POWER INDUCTORS

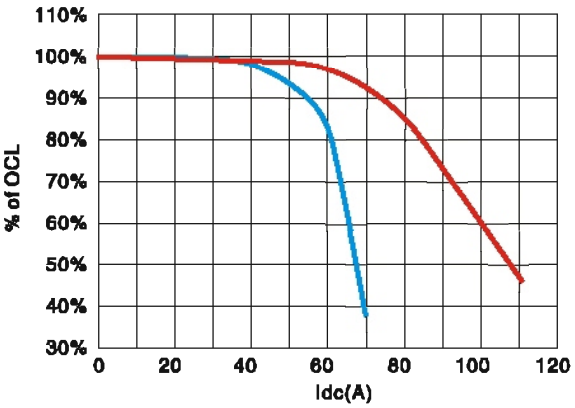
HCB1005 SERIES

INDUCTANCE CHARACTERISICS:

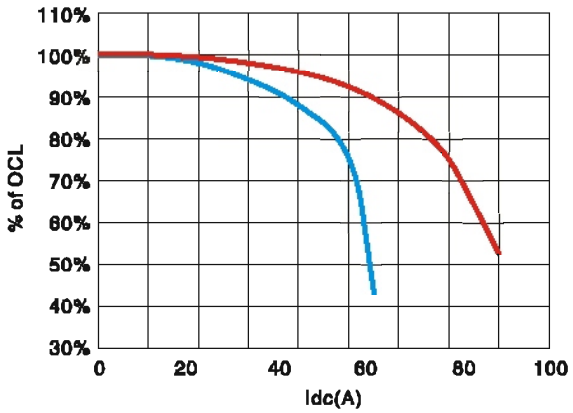
HCB1005RX-80NK



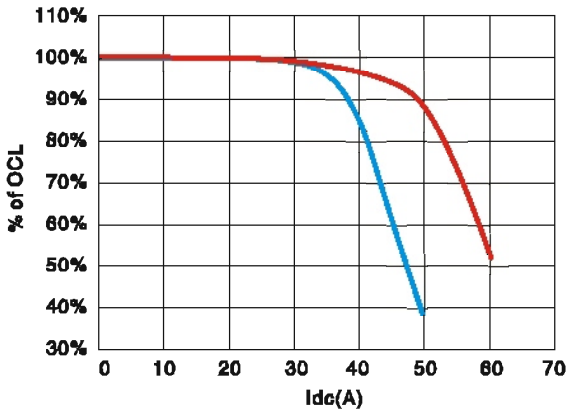
HCB1005RX-R10K



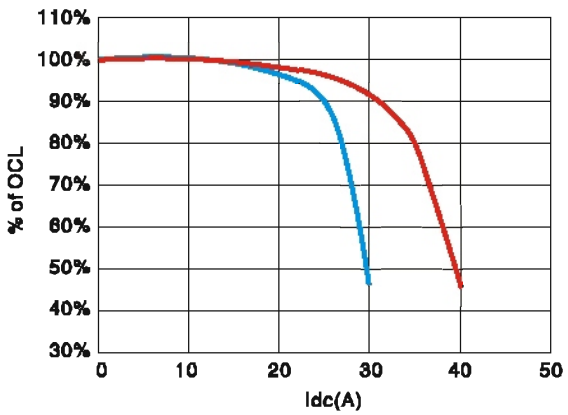
HCB1005RX-R12K



HCB1005RX-R15K



HCB1005RX-R22K



HIGH CURRENT POWER INDUCTORS

HCB1007 SERIES

FEATURES:

- High current carrying capacity
- Low core loss
- Inductance range from 115nH to 470nH
- Current range from 23.5A to 94A
- Ferrite core material

OPTIONS:

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

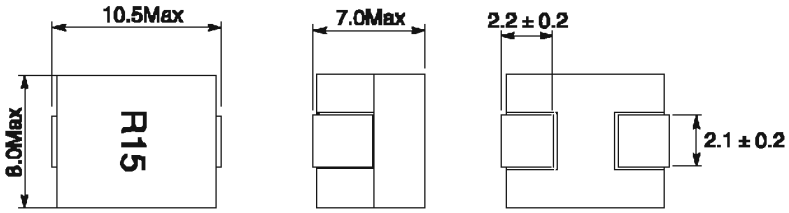
APPLICATIONS:

- 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)

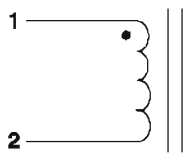
ELECTRICAL CHARACTERISTICS:

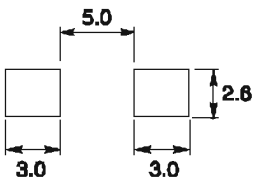
Part Number	Inductance (nH) ± 10% @0Adc	Inductance (nH)Min @Isat1	Heat rating current DC Amps Irms(A)	Saturation current DC Amps Isat1(A)	Saturation current DC Amps Isat2(A)	DCR@25℃ (mΩ)
HCB1007R1-R11K	115	83	61	94	86	0.29±5%
HCB1007R1-R15K	150	108	61	75	60	0.29±5%
HCB1007R1-R18K	180	129	61	60	50	0.29±5%
HCB1007R1-R22K	220	158	61	50	40	0.29±5%
HCB1007R1-R27K	270	194	61	41	33	0.29±5%
HCB1007R1-R30K	300	216	61	35	30	0.29±5%
HCB1007R1-R33K	330	237	61	33	26.5	0.29±5%
HCB1007R1-R39K	390	280	61	28	22.5	0.29±5%
HCB1007R1-R47K	470	338	61	23.5	19	0.29±5%

DIMENSIONS(mm) :



SCHEMATIC :





Recommended pad layout

NOTES:

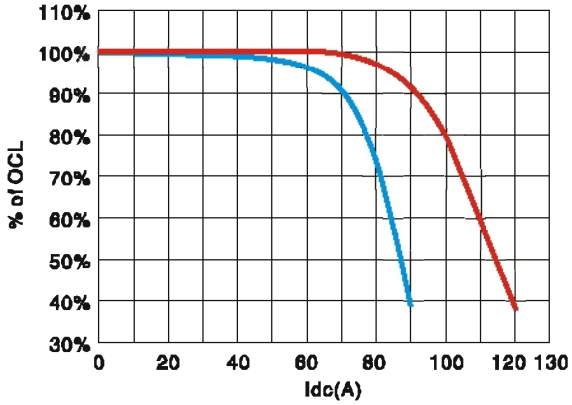
- Test Frequency : 100KHz / 0.1V@25℃
- Irms: DC current for an approximate temperature rise of 40℃ without core loss
- Isat1: Peak current for approximately 20% rolloff at +25℃
- Isat2: Peak current for approximately 20% rolloff at +125℃
- Operating temperature: -40℃ to +125℃(ambient plus self-temperature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

HIGH CURRENT POWER INDUCTORS

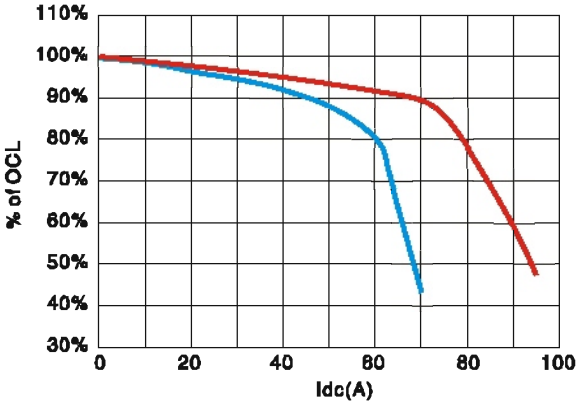
HCB1007 SERIES

INDUCTANCE CHARACTERISICS:

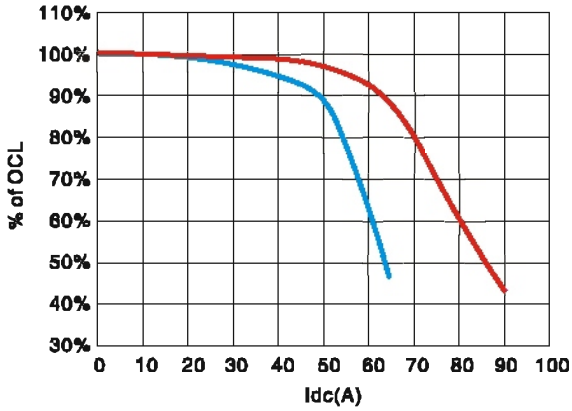
HCB1007R1-R11K



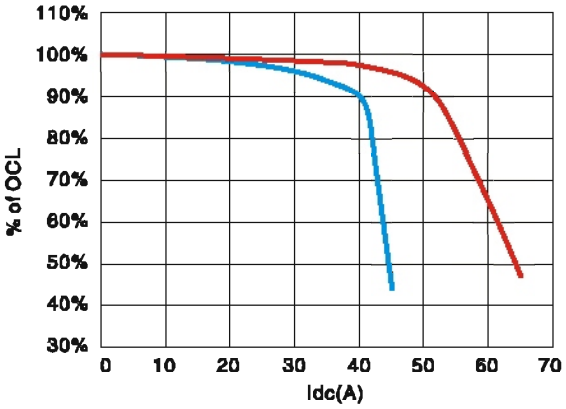
HCB1007R1-R15K



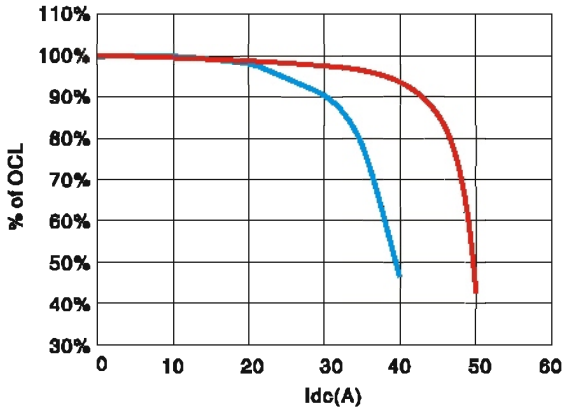
HCB1007R1-R18K



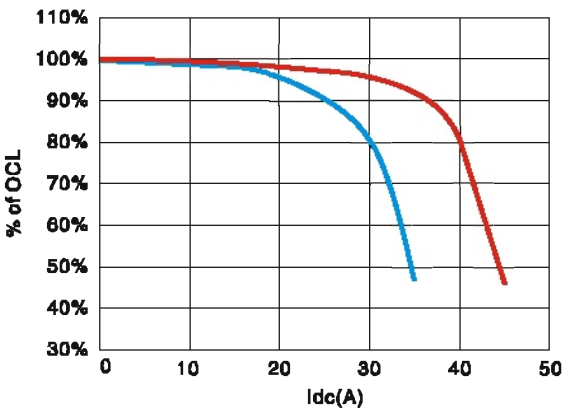
HCB1007R1-R22K



HCB1007R1-R27K



HCB1007R1-R30K



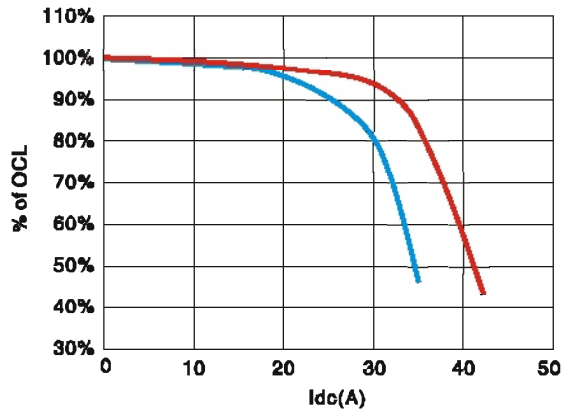
+25℃ +125℃

HIGH CURRENT POWER INDUCTORS

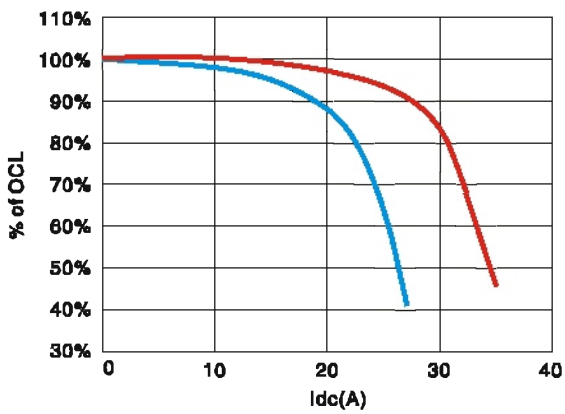
HCB1007 SERIES

INDUCTANCE CHARACTERISICS:

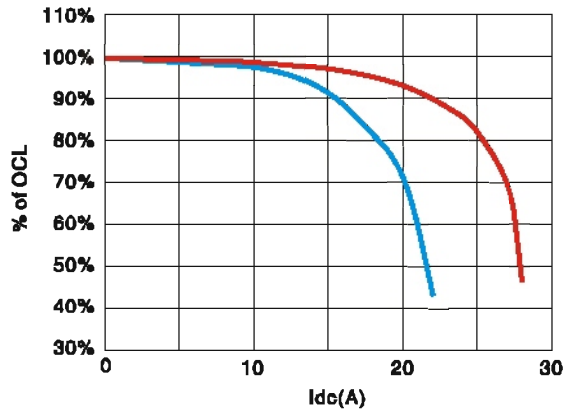
HCB1007R1–R33K



HCB1007R1–R39K



HCB1007R1–R47K



+25℃ +125℃

HIGH CURRENT POWER INDUCTORS

HCB1008 SERIES

FEATURES:

- High current carrying capacity
- Low core loss
- Inductance range from 120nH to 220nH
- Current range from 58A to 95A
- Ferrite core material

OPTIONS:

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

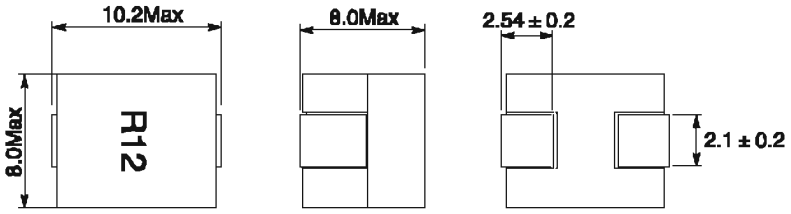
APPLICATIONS:

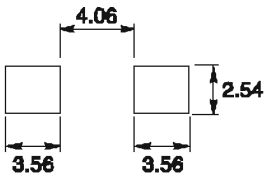
- Portable electronics
- Servers and workstations
- Data networking and storage systems
- Notebook and desktop computers
- Graphics cards and battery power systems
- Multi-phase regulators
- Voltage regulator module(VRM)

ELECTRICAL CHARACTERISTICS:

Part Number	Inductance (nH) ± 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℃ (mΩ)
HCB1008R1-R12K	120	86.4	68	95	77	0.18±5%
HCB1008R1-R15K	150	108	68	79	66	0.18±5%
HCB1008R1-R18K	180	129.6	68	62	52	0.18±5%
HCB1008R1-R22K	220	158.4	68	58	47	0.18±5%

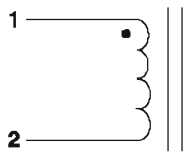
DIMENSIONS(mm) :





Recommended pad layout

SCHEMATIC :



NOTES:

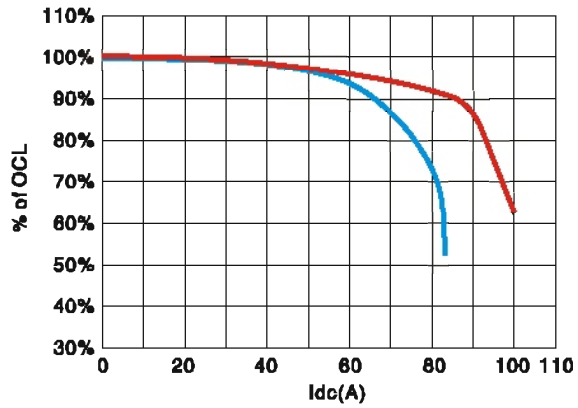
- Test Frequency : 100KHz / 0.1V@25℃
- Irms: DC current for an approximate temperature rise of 40℃ without core loss
- Isat1: Peak current for approximately 20% rolloff at +25℃
- Isat2: Peak current for approximately 20% rolloff at +125℃
- Operating temperature: -40℃ to +125℃(ambient plus self-temperature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

HIGH CURRENT POWER INDUCTORS

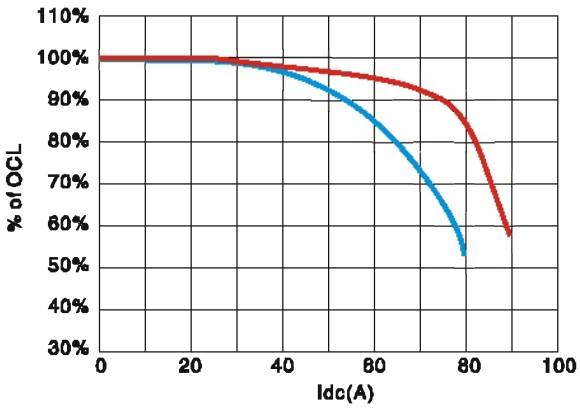
HCB1008 SERIES

INDUCTANCE CHARACTERISICS:

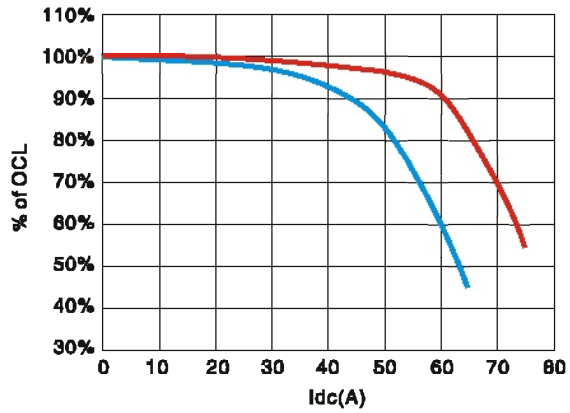
HCB1008R1-R12K



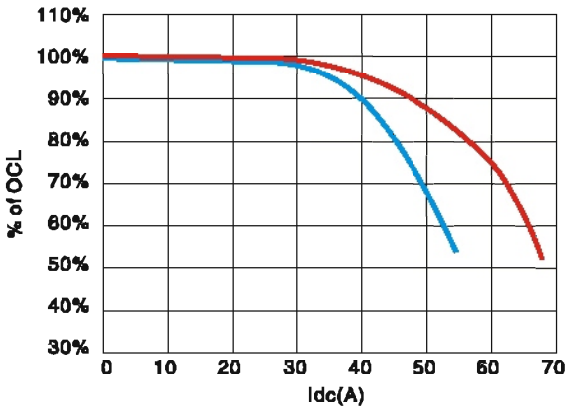
HCB1008R1-R15K



HCB1008R1-R18K



HCB1008R1-R22K



+25℃ +125℃

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

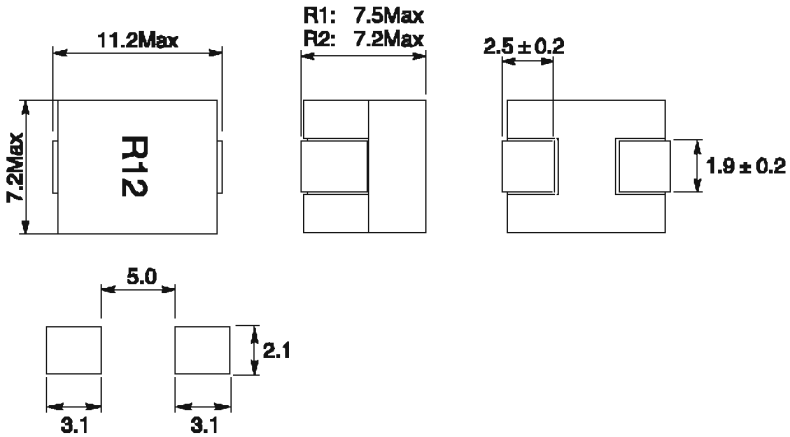
APPLICATIONS:

- 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:

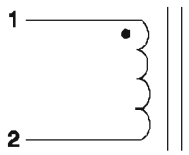
Part Number	Inductance (nH) ± 10% @0Adc	Inductance (nH)Min @Isat1	Heat rating current DC Amps Irms(A)	Saturation current DC Amps Isat1(A)	Saturation current DC Amps Isat2(A)	DCR@25℃ (mΩ)
HCB1107R1-R12K	120	86	55	90	72	0.29±5%
HCB1107R1-R15K	150	108	55	70	56	0.29±5%
HCB1107R1-R23K	230	166	55	45	36	0.29±5%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

DIMENSIONS(mm) :



Recommended pad layout

SCHEMATIC :



NOTES:

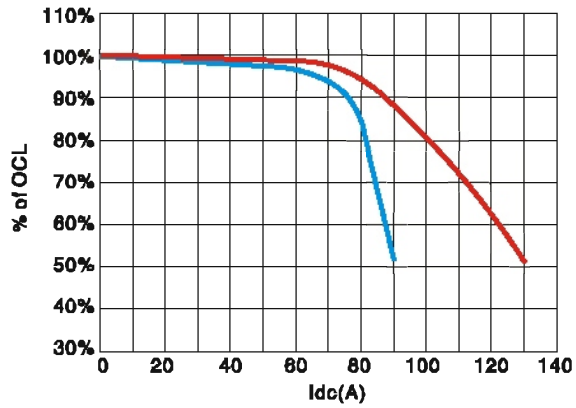
- Test Frequency : 100KHz / 0.1V@25℃
- Irms: DC current for an approximate temperature rise of 40℃ without core loss
- Isat1: Peak current for approximately 20% rolloff at +25℃
- Isat2: Peak current for approximately 20% rolloff at +125℃
- Operating temperature: -40℃ to +125℃(ambient plus self-temperature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

HIGH CURRENT POWER INDUCTORS

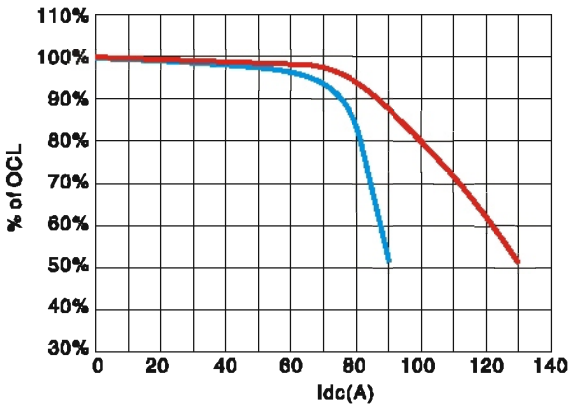
HCB1107 SERIES

INDUCTANCE CHARACTERISICS:

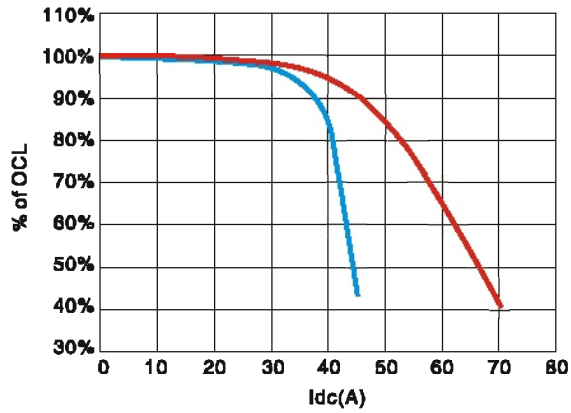
HCB1107RX–R12K



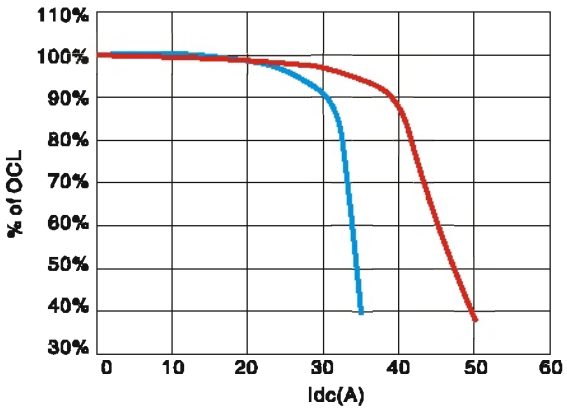
HCB1107RX–R15K



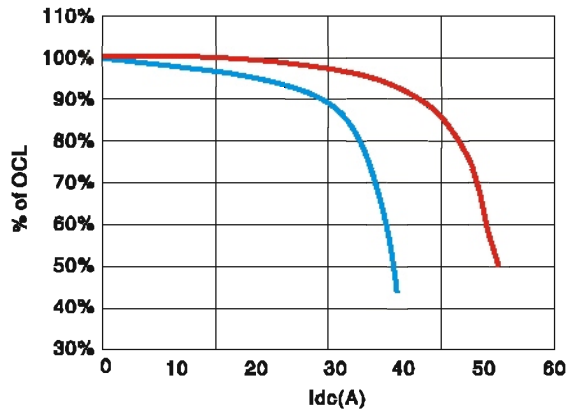
HCB1107RX–R23K



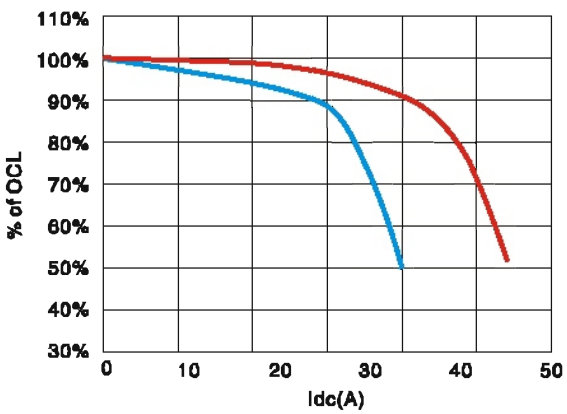
HCB1107RX–R30K



HCB1107RX–R40K



HCB1107RX–R51K



+25℃ +125℃

HIGH CURRENT POWER INDUCTORS

HCB1208 SERIES

FEATURES:

- High current carrying capacity
- Low core loss
- Inductance range from 150nH to 250nH
- Current range from 55A to 85A
- Ferrite core material

OPTIONS:

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

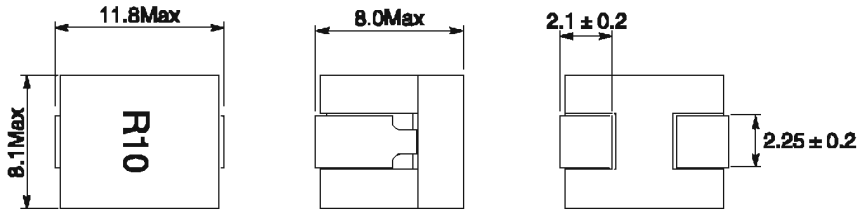
APPLICATIONS:

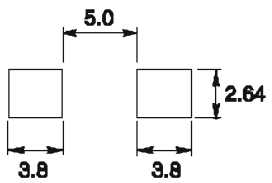
- Portable electronics
- Servers and workstations
- Data networking and storage systems
- Notebook and desktop computers
- Graphics cards and battery power systems
- Multi-phase regulators
- Voltage regulator module(VRM)

ELECTRICAL CHARACTERISTICS:

Part Number	Inductance (nH) ± 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℃ (mΩ)
HCB1208R1-R15K	150	114	50	85	72	0.29±5%
HCB1208R1-R18K	180	137	50	72	63	0.29±5%
HCB1208R1-R21K	210	160	50	65	55	0.29±5%
HCB1208R1-R23K	230	176	50	61	50	0.29±5%
HCB1208R1-R25K	250	191	50	55	44	0.29±5%

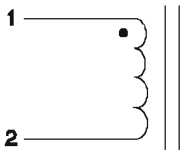
DIMENSIONS(mm) :





Recommended pad layout

SCHEMATIC :



NOTES:

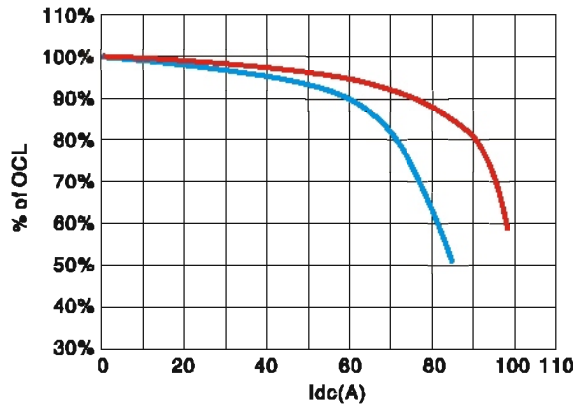
- Test Frequency : 100KHz / 0.1V@25℃
- Irms: DC current for an approximate temperature rise of 40℃ without core loss
- Isat1: Peak current for approximately 20% rolloff at +25℃
- Isat2: Peak current for approximately 20% rolloff at +125℃
- Operating temperature: -40℃ to +125℃(ambient plus self-temperature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

HIGH CURRENT POWER INDUCTORS

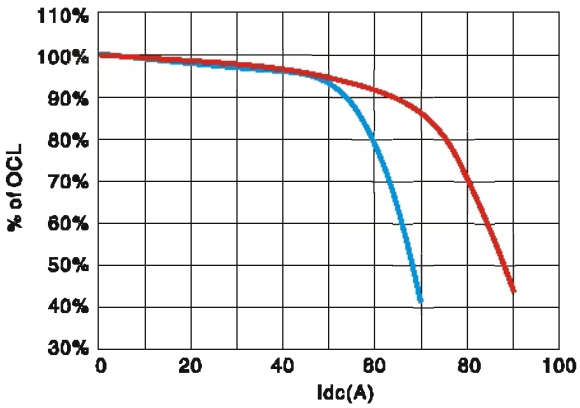
HCB1208 SERIES

INDUCTANCE CHARACTERISICS:

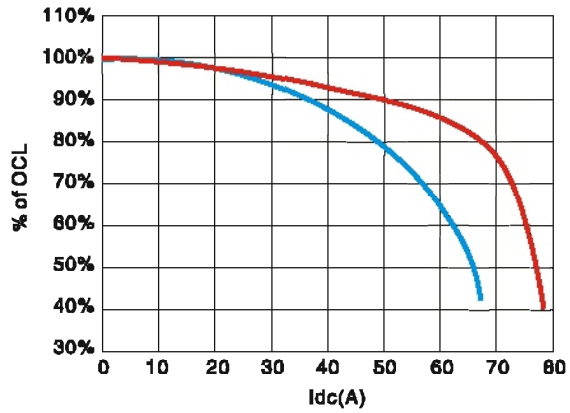
HCB1208R1-R15K



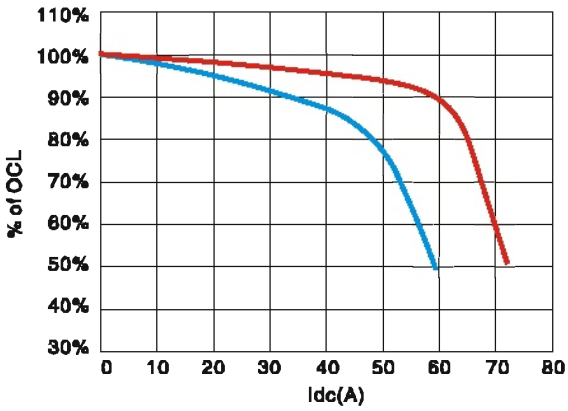
HCB1208R1-R18K



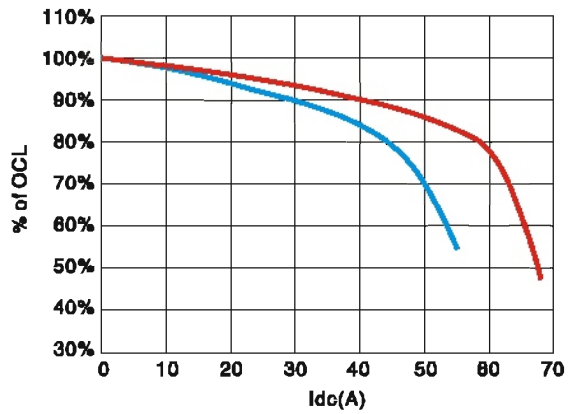
HCB1208R1-R21K



HCB1208R1-R23K



HCB1208R1-R25K



HIGH CURRENT POWER INDUCTORS

HCB1211 SERIES

FEATURES:

- High current carrying capacity
- Low core loss
- Inductance range from 230nH to 540nH
- Current range from 26A to 60A
- Ferrite core material

OPTIONS:

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

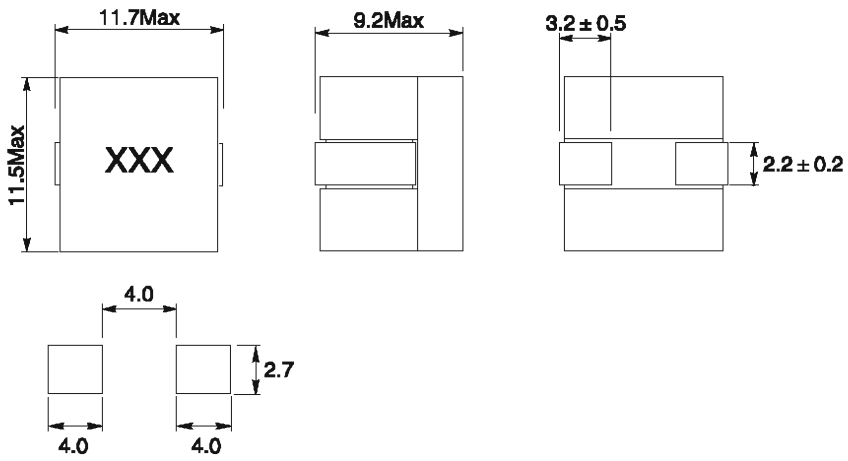
APPLICATIONS:

- 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:

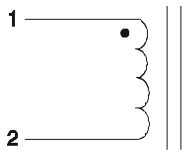
Part Number	Inductance (nH) ± 15% @0Adc	Inductance (nH)Min @Isat1	Heat rating current DC Amps Irms(A)	Saturation current DC Amps Isat(A)	DCR@25 ℃ (mΩ)
HCB1211R1-R23K	230	184	40	60	0.3±7%
HCB1211R1-R32K	320	256	40	45	0.3±7%
HCB1211R1-R38K	380	304	40	40	0.3±7%
HCB1211R1-R46K	460	368	40	32	0.3±7%
HCB1211R1-R54K	540	432	40	26	0.3±7%

DIMENSIONS(mm) :



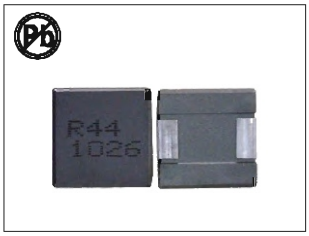
Recommended pad layout

SCHEMATIC :



NOTES:

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



HIGH CURRENT POWER INDUCTORS

HCB1313 SERIES

FEATURES:

- High current carrying capacity
- Low core loss
- Inductance range from 210nH to 520nH
- Current range from 13A to 71A
- Ferrite core material

OPTIONS:

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

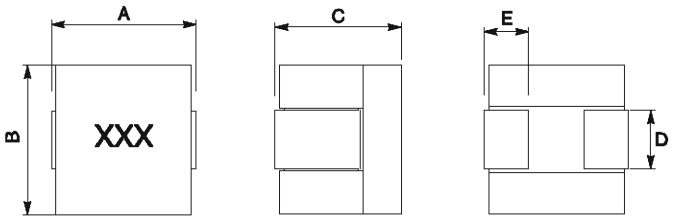
APPLICATIONS:

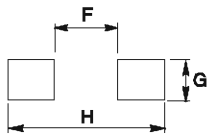
- Portable electronics
- Servers and workstations
- Data networking and storage systems
- Notebook and desktop computers
- Graphics cards and battery power systems
- Multi-phase regulators
- Voltage regulator module(VRM)

ELECTRICAL CHARACTERISTICS:

Part Number	Inductance (nH) ± 15% @0Adc	Inductance (nH)Min @Isat1	Heat rating current DC Amps Irms(A)	Saturation current DC Amps Isat(A)	DCR@25 ℃ (mΩ)
HCB1313R1-R22K	220	176	50	40	0.155 ± 10%
HCB1313R1-R28K	280	224	50	30	0.155 ± 10%
HCB1313R1-R31K	310	248	50	24	0.155 ± 10%
HCB1313R1-R40K	400	320	50	18	0.155 ± 10%
HCB1313R1-R52K	520	416	50	13	0.155 ± 10%
HCB1313R2-R21K	210	168	45	71	0.32 ± 9.4%
HCB1313R2-R26K	260	208	45	60	0.32 ± 9.4%
HCB1313R2-R32K	320	256	45	50	0.32 ± 9.4%
HCB1313R2-R44K	440	352	45	35	0.32 ± 9.4%
HCB1313R2-R50K	500	400	45	28	0.32 ± 9.4%

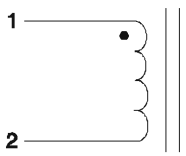
DIMENSIONS(mm) :





Recommended pad layout

SCHEMATIC :

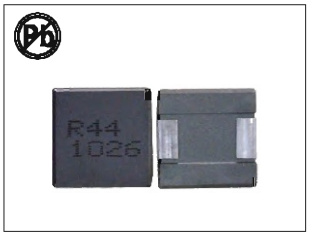


Dimensions

Part No.	A	B	C	D	E	F	G	H
R1	13.5max	13.2max	5.3max	5.0 ± 0.2	2.0 ± 0.2	8.0	5.5	14.0
R2	13.46max	13.0max	8.0max	5.0 ± 0.2	2.54 ± 0.3	7.11	7.62	13.47

NOTES:

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



HIGH CURRENT POWER INDUCTORS

HCB1413 SERIES

FEATURES:

- High current carrying capacity
- Low core loss
- Inductance range from 300nH to 680nH
- Current range from 24A to 60A
- Ferrite core material

OPTIONS:

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

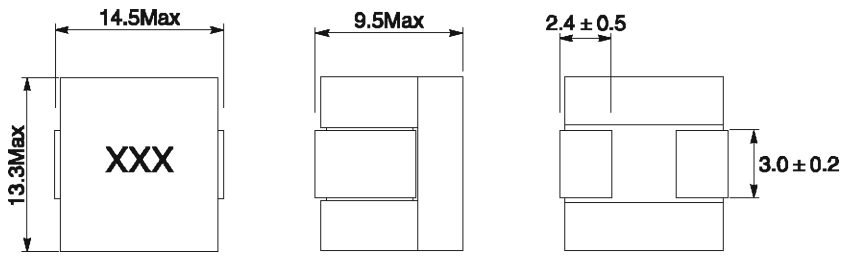
APPLICATIONS:

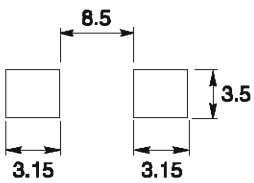
- Portable electronics
- Servers and workstations
- Data networking and storage systems
- Notebook and desktop computers
- Graphics cards and battery power systems
- Multi-phase regulators
- Voltage regulator module(VRM)

ELECTRICAL CHARACTERISTICS:

Part Number	Inductance (nH) ± 15% @0Adc	Inductance (nH)Min @Isat	Heat rating current DC Amps Irms(A)	Saturation current DC Amps Isat(A)	DCR@25 ℃ (mΩ)
HCB1413R1-R30K	300	240	45	60	0.25±7%
HCB1413R1-R36K	360	288	45	52	0.25±7%
HCB1413R1-R45K	450	360	45	43	0.25±7%
HCB1413R1-R53K	530	424	45	34	0.25±7%
HCB1413R1-R68K	680	544	45	24	0.25±7%

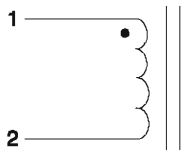
DIMENSIONS(mm) :





Recommended pad layout

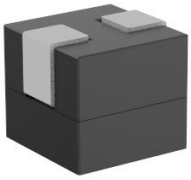
SCHEMATIC :



NOTES:

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

Low Profile, High Current Power Inductors



Features

- SMD inductors
- High current and lower DCR
- Ferrite core material
- Operating temperature range: –40 to +125°C (including self-temperature rise)
- Shielded construction

Environmental Data

- Storage Conditions (In Original Packaging): <40°C ; <75%RH
- Operating temperature range: -40°C to +125°C (Ambient plus self temperature rise)
- Solder reflow temperature: J-STD-020D compliant

Applications

- Servers
- Multi-phase and Vcore regulators
- Voltage Regulator Modules (VRMs)
  - Server and desktop
  - Central processing unit (CPU)
  - Graphics processing unit (GPU)
  - Specific integrated circuit (ASIC)
  - High power density
- Notebook regulators
- Battery power systems
- Graphics cards

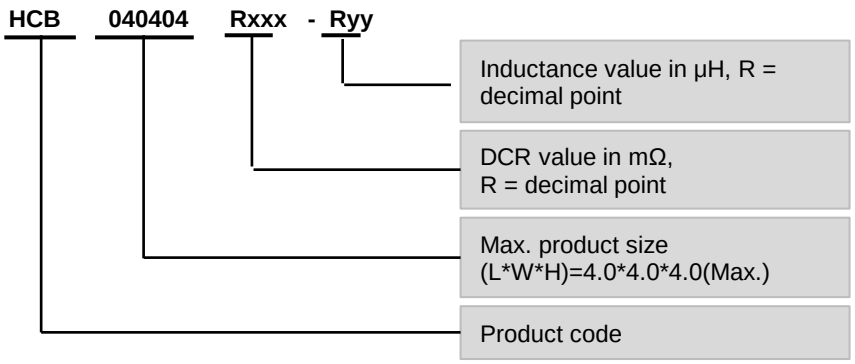
Product Specifications

Part Number[5]	OCL[1] (nH) ±15%	Irms[2] (Amps)	Isat[3] (Amps)	Height (max.)	DCR(mΩ) typical @ +20 °C
HCB040404R32-R05	55	19	30	4.0	0.32
HCB040404R32-R06	65	19	26	4.0	0.32
HCB040404R32-R08	80	19	22	4.0	0.32
HCB040404R32-R10	100	19	17	4.0	0.32

Notes:

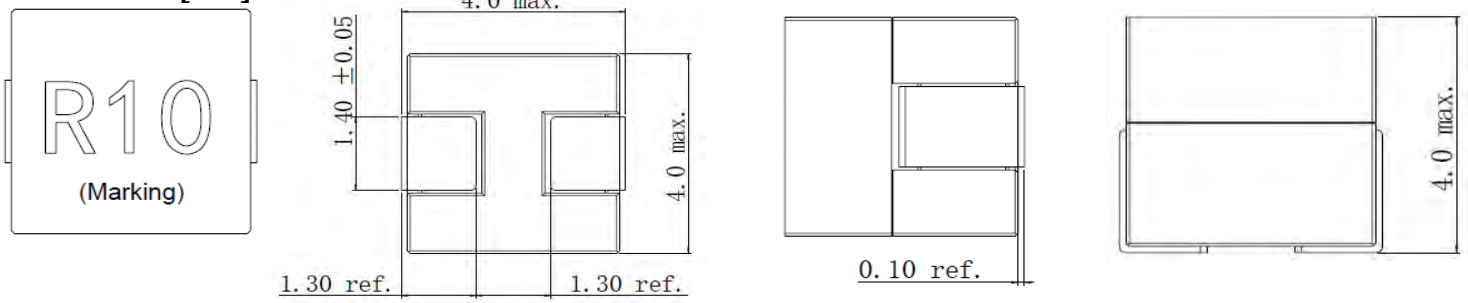
1. Open Circuit Inductance (OCL) Test Parameters: 100 kHz, 1 Vrms,0.0 Adc, +25 °C
2. Irms: DC current for an approximate temperature rise of 40 °C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow, and proximity of other heat generating components 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 : Peak current for approximately 20% rolloff @+25 °C
4. Measurement Equipment: WK3260B+WK3265B

5. Part Number Definition:



Technical Data HCB040404R32 Series

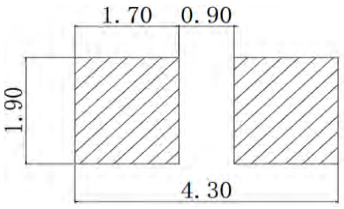
Dimensions:[mm]



Product Marking:

Part Code	Ryy
Date Code	YYWW

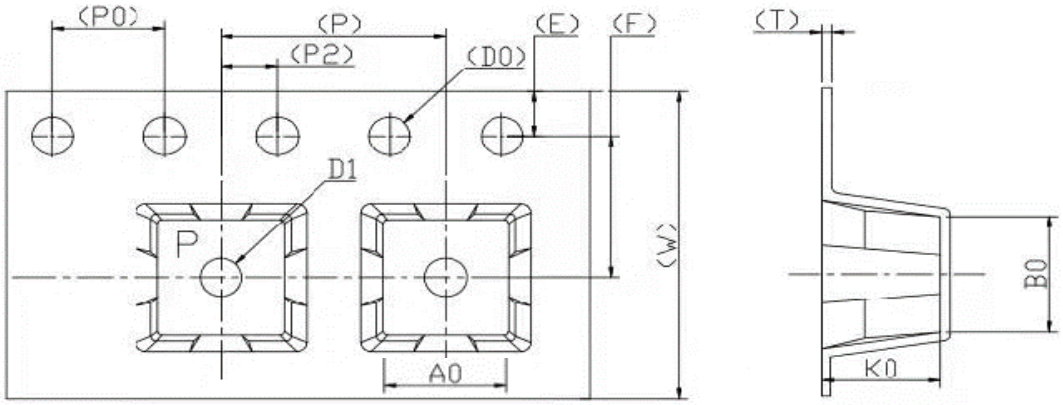
Recommended Pad Layout:[mm]



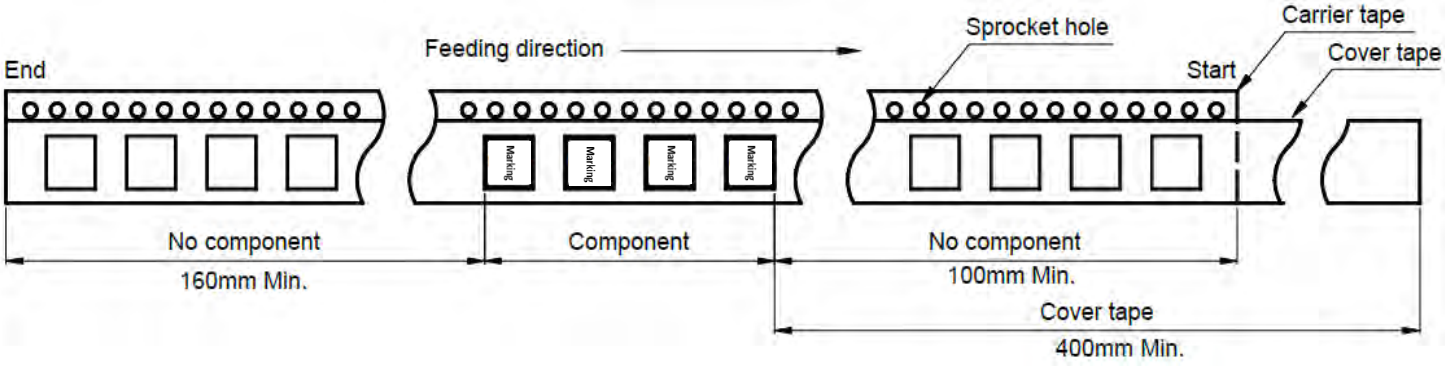
Schematic:

Packaging Information:[mm]

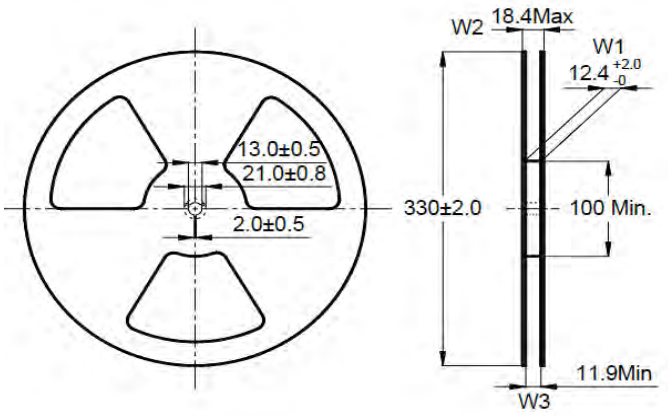
Tape Dimensions



Material	A0(±0.1)	B0(±0.1)	W (±0.3)	T (±0.05)	K0(±0.1)	P(±0.1)	F(±0.1)	E(±0.1)	D0(±0.1)	P0(±0.1)	P2(±0.1)	D1(±0.1)
Polystyrene	4.50	4.50	12.00	0.40	4.20	8.00	5.50	1.75	1.50	4.00	2.00	1.50

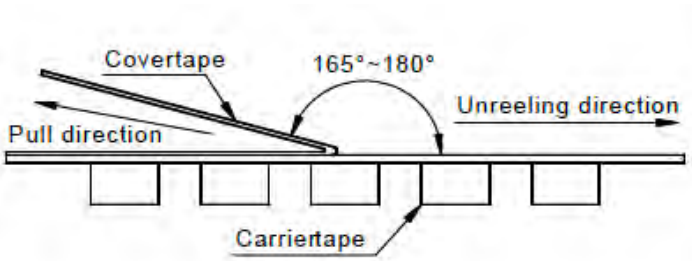


Reel Dimensions



Cover tape peel off condition

Tape Width	Peel-off Force	Peel Speed
12/16/24mm	0.1~1.3N	300±10mm/M



Packing Quantity

Part Number	Quantity (pcs/reel)
HCB040404R32 Type	1800

Recommended Reflow Profile:

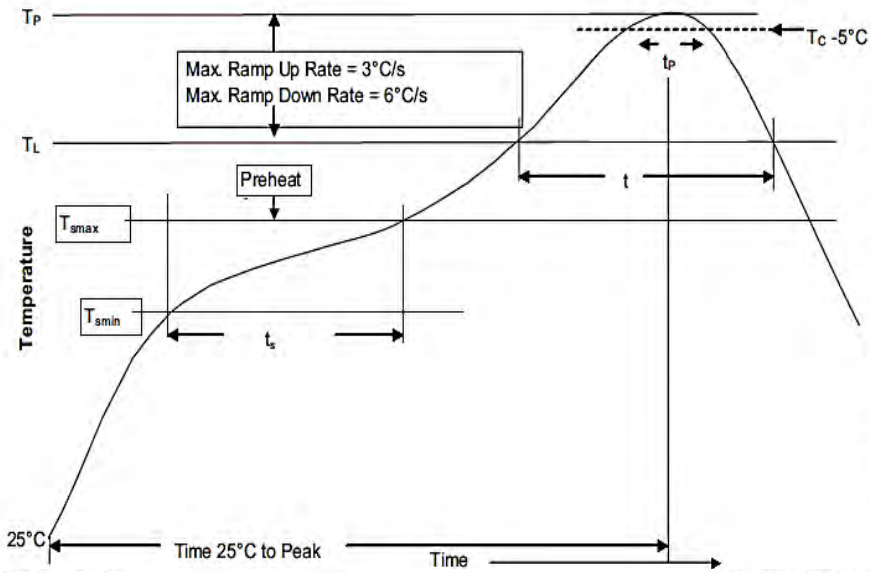


Table 1 - Standard SnPb Solder (T_C)

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

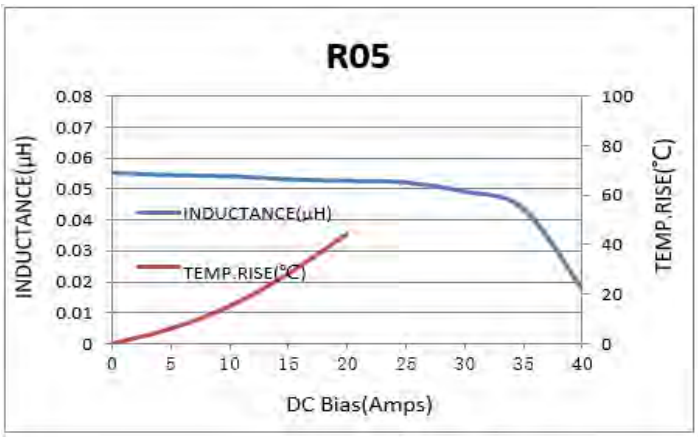
Table 2 - Lead (Pb) Free Solder (T_C)

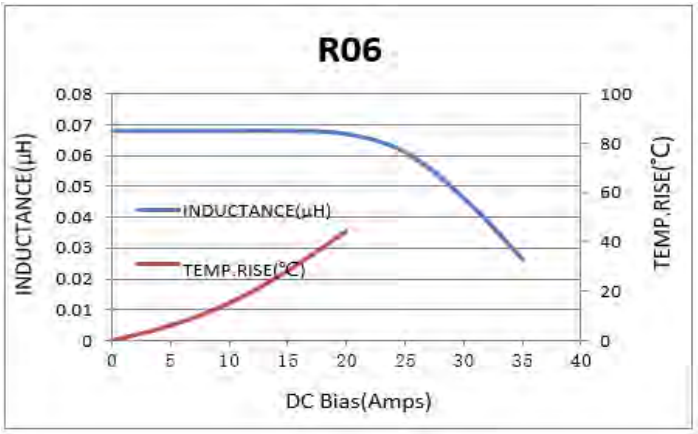
Package Thickness	Volume mm³ <350	Volume mm³ 350 - 2000	Volume mm³ >2000
<1.6mm	260°C	260°C	260°C
1.6 – 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

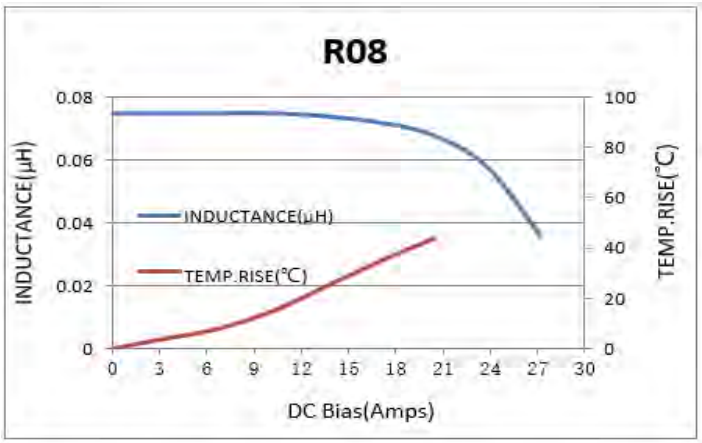
Profile Feature		Standard SnPb Solder	Lead (Pb) Free Solder
Preheat and Soak	• Temperature min. (T_{smin})	100°C	150°C
	• Temperature max. (T_{smax})	150°C	200°C
	• Time (T_{smin} to T_{smax}) (t_s)	60-120 Seconds	60-120 Seconds
Average ramp up rate T_{smax} to T_p		3°C/ Second Max.	3°C/ Second Max.
Liquidous temperature (T_L) Time at liquidous (t_L)		183°C 60-150 Seconds	217°C 60-150 Seconds
Peak package body temperature (T_P)*		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.

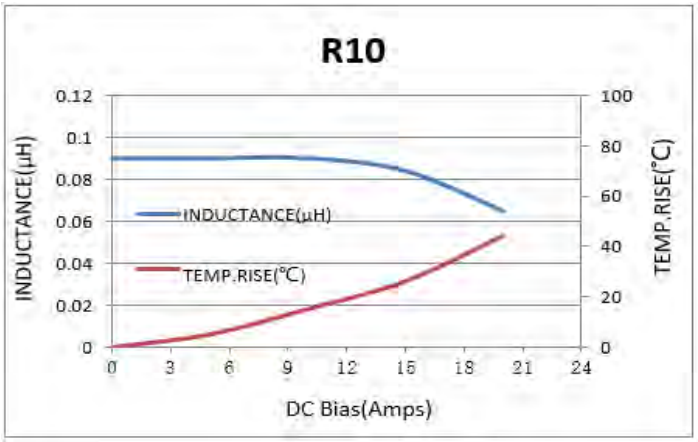
* Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.
** Tolerance for time at peak profile temperature (t_p) is defined as a supplier minimum and a user maximum.

Inductance Characteristics:









Low Profile, High Current Power Inductors

Features

- SMD inductors
- High current and lower DCR
- Ferrite core material
- Operating temperature range: –40 to +125°C (including self-temperature rise)
- Shielded construction

Environmental Data

- Storage Conditions (In Original Packaging): <40°C ; <75%RH
- Operating temperature range: -40°C to +125°C (Ambient plus self temperature rise)
- Solder reflow temperature: J-STD-020D compliant

Applications

- Servers
- Multi-phase and Vcore regulators
- Voltage Regulator Modules (VRMs)
  - Server and desktop
  - Central processing unit (CPU)
  - Graphics processing unit (GPU)
  - Specific integrated circuit (ASIC)
  - High power density
- Notebook regulators
- Battery power systems
- Graphics cards

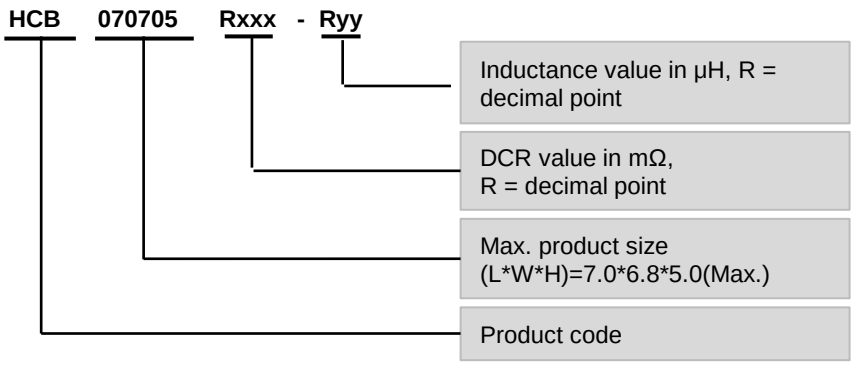
Product Specifications

Part Number[5]	OCL[1] (nH) ±15%	Irms[2] (Amps)	Isat[3] (Amps)	Height (max.)	DCR(mΩ) typical @ +20 °C
HCB070705R32-R10	100	50	53	5.0	0.32
HCB070705R32-R12	120	50	40	5.0	0.32
HCB070705R32-R15	150	50	35	5.0	0.32
HCB070705R32-R18	180	50	28	5.0	0.32

Notes:

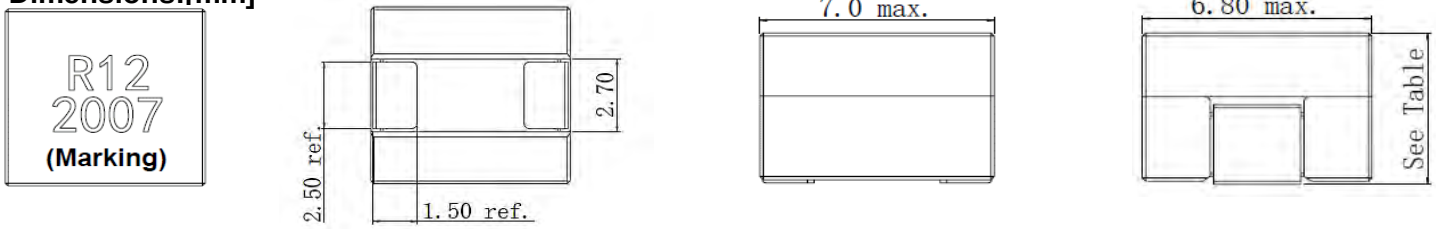
1. Open Circuit Inductance (OCL) Test Parameters: 100 kHz, 0.1 Vrms,0.0 Adc, +25 °C
2. Irms: DC current for an approximate temperature rise of 40 °C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow, and proximity of other heat generating components 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 : Peak current for approximately 20% rolloff @+25 °C
4. Measurement Equipment: WK3260B+WK3265B

5. Part Number Definition:



Technical Data HCB070705R32 Series

Dimensions:[mm]



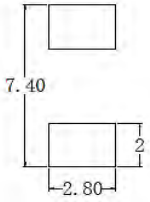
Product Marking:

Part Code	Ryy
Date Code	YYWW

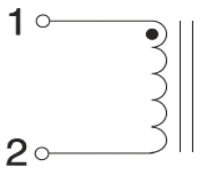
Table

Part Number	Max. Height
HCB070705R32 Type	5.0

Recommended Pad Layout:[mm]

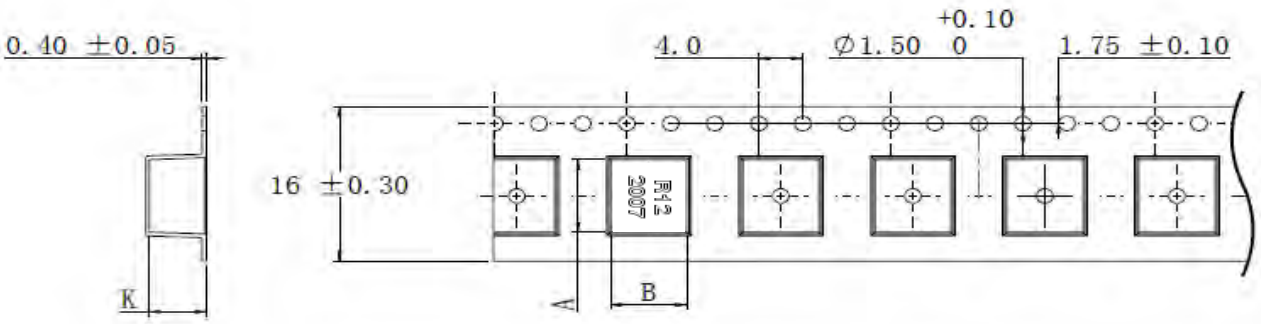


Schematic:

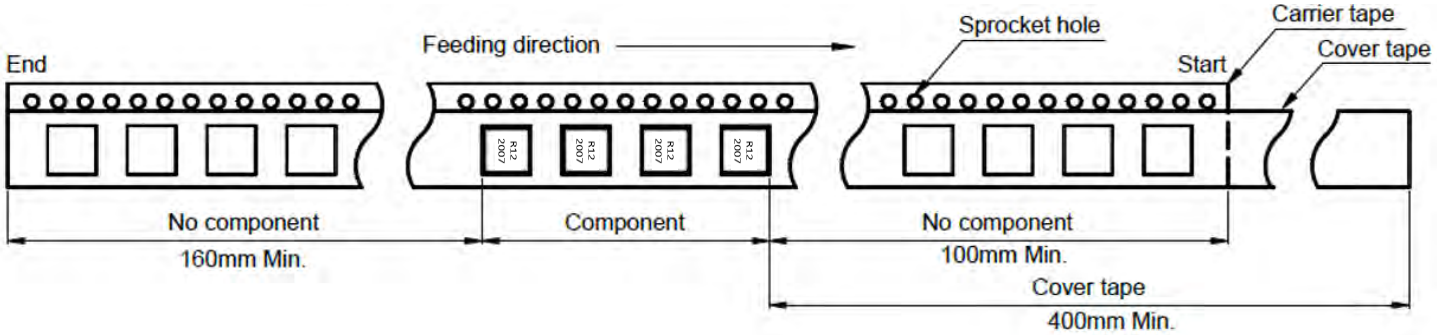


Packaging Information:[mm]

Tape Dimensions

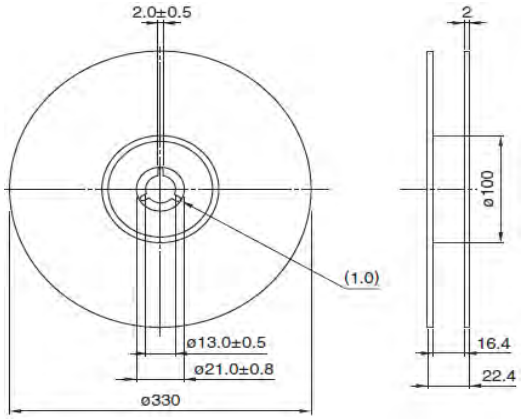


Part Number	A	B	K
HCB070705R32 Type	7.5±0.1	6.9±0.1	5.2±0.1



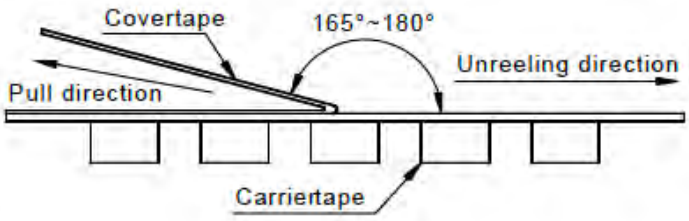
NO.8,YanTa Northern road,xi`anCity Shaanxi pro.china TEL：+86-29-87851916 FAX：+86-29-87851840 E-mail：sales@shinhom.com.cn

Reel Dimensions



Cover tape peel off condition

Tape Width	Peel-off Force	Peel Speed
16/24mm	0.1~1.3N	300±10mm/M



Packing Quantity

Part Number	Quantity (pcs/reel)
HCB070705R32 Type	900

Recommended Reflow Profile:

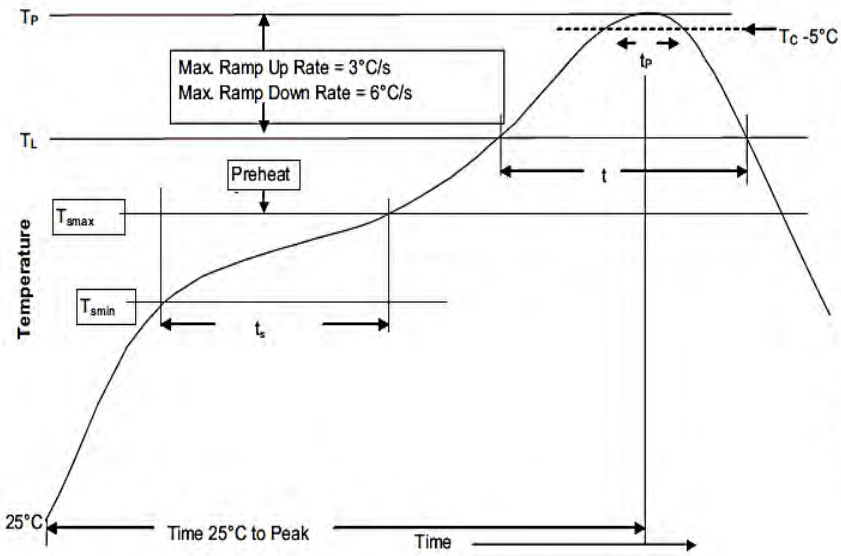


Table 1 - Standard SnPb Solder (T_C)

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

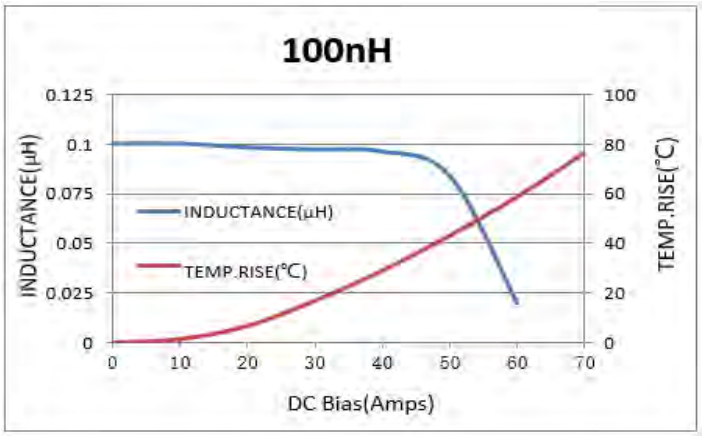
Table 2 - Lead (Pb) Free Solder (T_C)

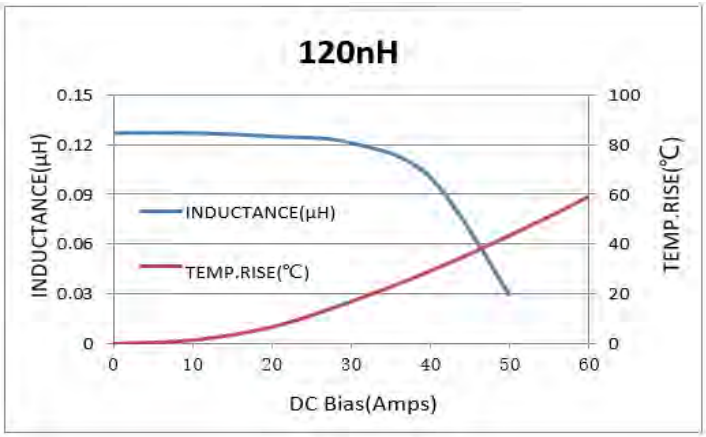
Package Thickness	Volume mm³ <350	Volume mm³ 350 - 2000	Volume mm³ >2000
<1.6mm	260°C	260°C	260°C
1.6 – 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

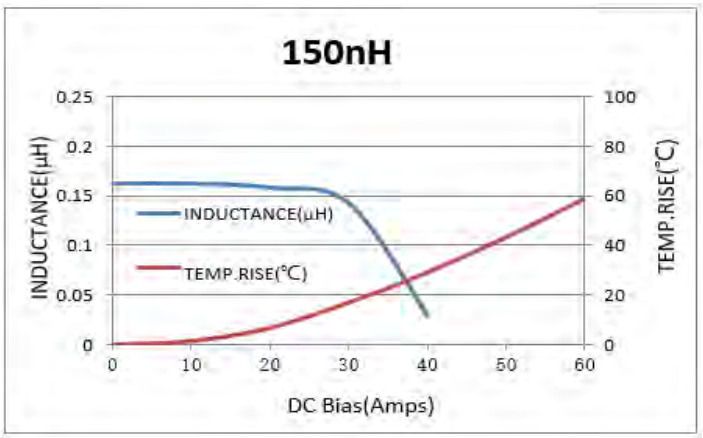
Profile Feature		Standard SnPb Solder	Lead (Pb) Free Solder
Preheat and Soak	• Temperature min. (T_{smin})	100°C	150°C
	• Temperature max. (T_{smax})	150°C	200°C
	• Time (T_{smin} to T_{smax}) (t_s)	60-120 Seconds	60-120 Seconds
Average ramp up rate T_{smax} to T_p		3°C/ Second Max.	3°C/ Second Max.
Liquidous temperature (T_L) Time at liquidous (t_L)		183°C 60-150 Seconds	217°C 60-150 Seconds
Peak package body temperature (T_P)*		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.

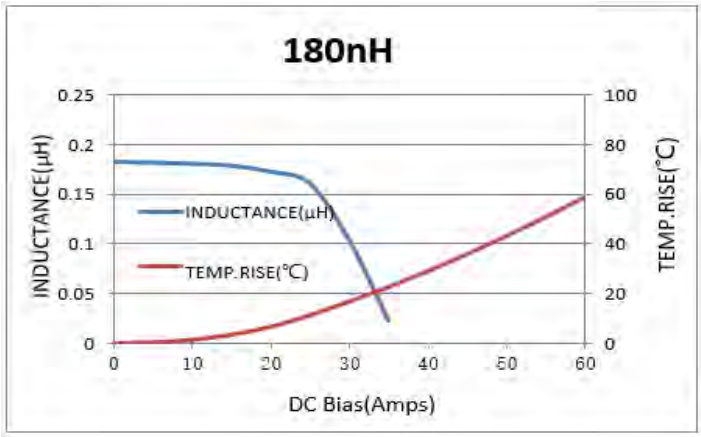
* Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.
** Tolerance for time at peak profile temperature (t_p) is defined as a supplier minimum and a user maximum.

Inductance Characteristics:

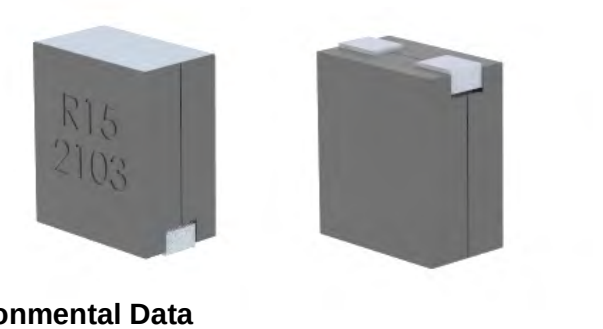








Low Profile, High Current Power Inductors



Features

- SMD inductors
- High current and lower DCR
- Ferrite core material
- Operating temperature range: –40 to +125°C (including self-temperature rise)
- Shielded construction

Environmental Data

- Storage Conditions (In Original Packaging): <40°C ; <75%RH
- Operating temperature range: -40°C to +125°C (Ambient plus self temperature rise)
- Solder reflow temperature: J-STD-020D compliant

Applications

- Servers
- Multi-phase and Vcore regulators
- Voltage Regulator Modules (VRMs)
  - Server and desktop
  - Central processing unit (CPU)
  - Graphics processing unit (GPU)
  - Specific integrated circuit (ASIC)
  - High power density
- Notebook regulators
- Battery power systems
- Graphics cards

Product Specifications

Part Number[5]	OCL[1] (nH) ±15%	Irms[2] (Amps)	Isat[3] (Amps)	Height (max.)	DCR(mΩ) typical @ +20 °C
HCB100612R125-R07	70	77	180	12.0	0.125
HCB100612R125-R10	100	77	125	12.0	0.125
HCB100612R125-R12	120	77	106	12.0	0.125
HCB100612R125-R15	150	77	83	12.0	0.125
HCB100612R125-R33	330	77	40	12.0	0.125

Notes:

1. Open Circuit Inductance (OCL) Test Parameters: 100 kHz, 1 Vrms,0.0 Adc, +25 °C
2. Irms: DC current for an approximate temperature rise 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 : Peak current for approximately 20% rolloff @+25 °C
4. Measurement Equipment: WK3260B+WK3265B

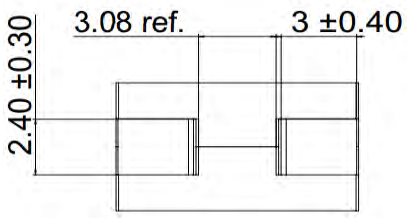
5. Part Number Definition:

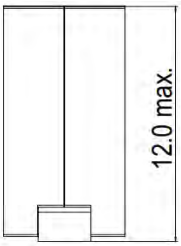
HCB 100612 Rxxx - Ryy

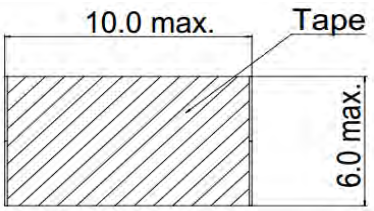
- Inductance value in µH, R = decimal point
- DCR value in mΩ, R = decimal point
- Max. product size (L*W*H)=10.0*6.0*12.0(Max.)
- Product code

Technical Data HCB100612R125 Series

Dimensions:[mm]



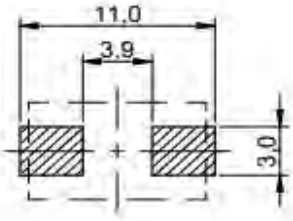




Product Marking:

Part Code	Ryy
Date Code	YYWW

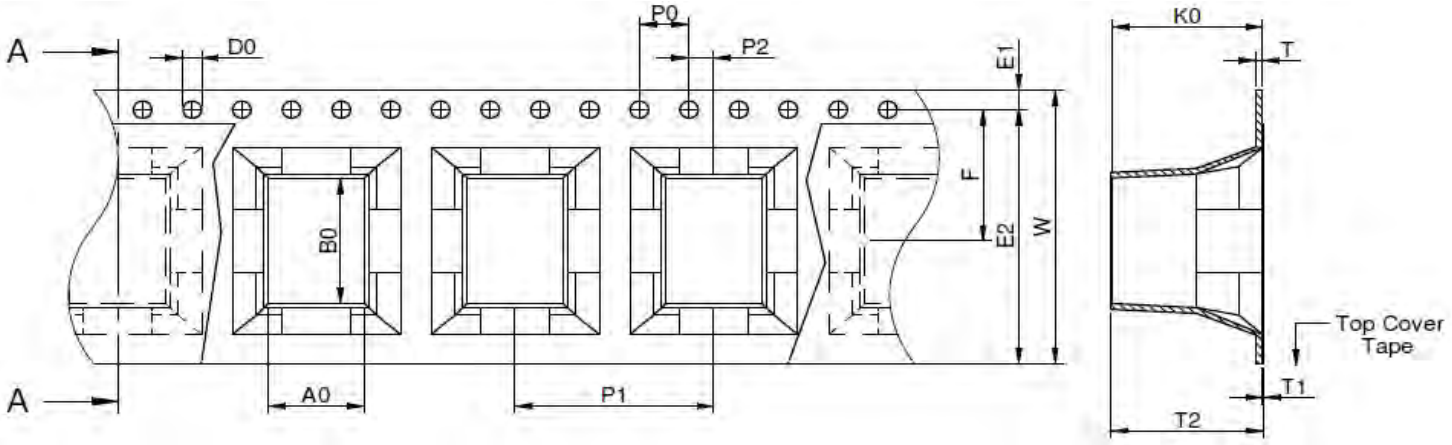
Recommended Pad Layout:[mm]



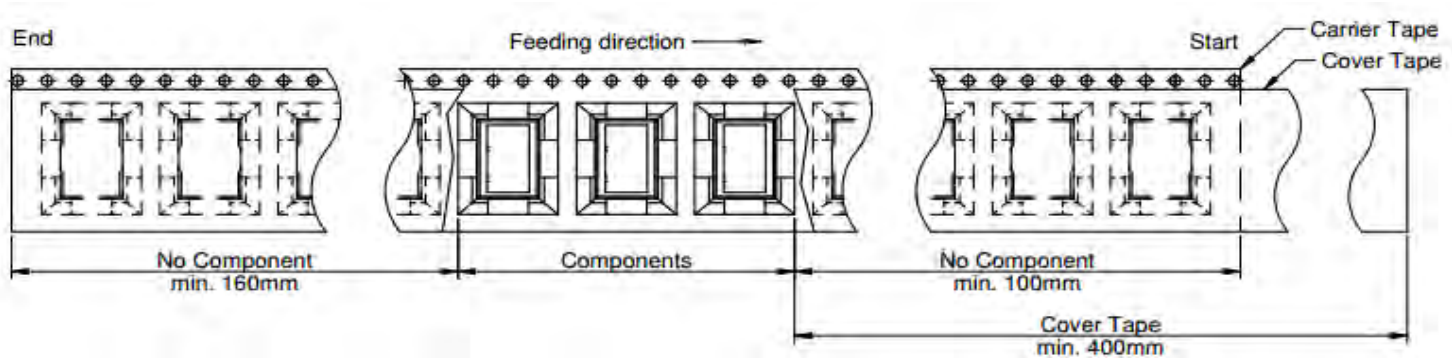
Schematic:

Packaging Information:[mm]

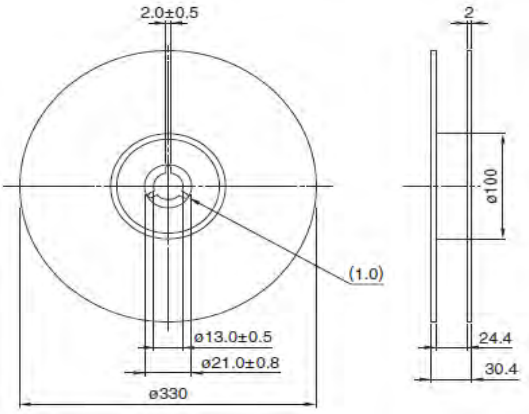
Tape Dimensions



Material	A0(typ.)	B0(typ.)	W (±0.3)	T (ref.)	T1 (max.)	T2 (typ.)	P0 (±0.1)	P1 (±0.1)	P2 (±0.1)	D0 (+0.1/-0.0)	E1 (±0.1)	E2 (min.)	F (±0.1)
Polystyrene	6.20	10.20	24.00	0.50	0.10	12.50	4.00	16.00	2.00	1.50	1.75	22.25	11.50

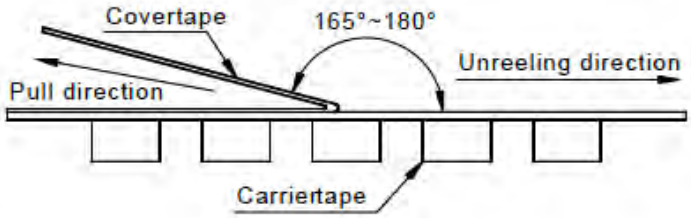


Reel Dimensions



Cover tape peel off condition

Tape Width	Peel-off Force	Peel Speed
16/24mm	0.1~1.3N	300±10mm/M



Packing Quantity

Part Number	Quantity (pcs/reel)
HCB100612R125 Type	300

Recommended Reflow Profile:

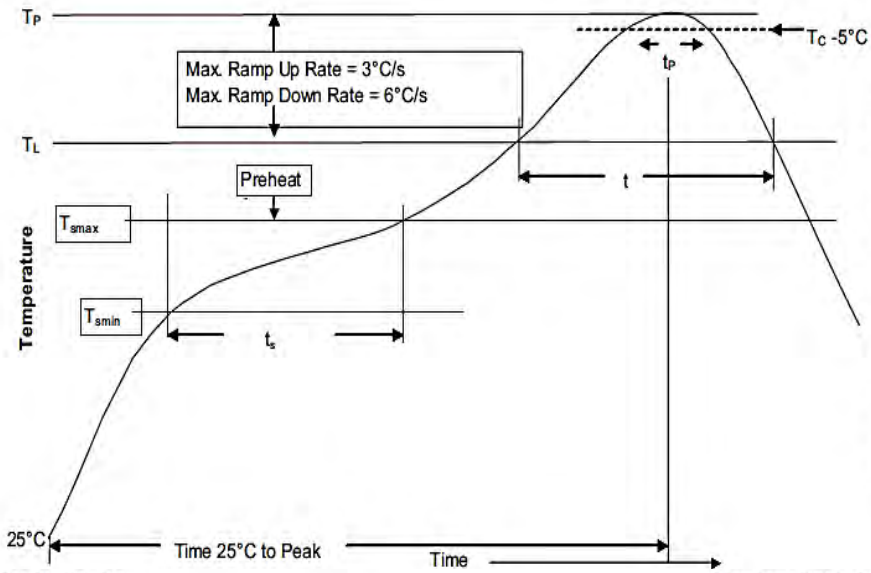


Table 1 - Standard SnPb Solder (T_C)

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

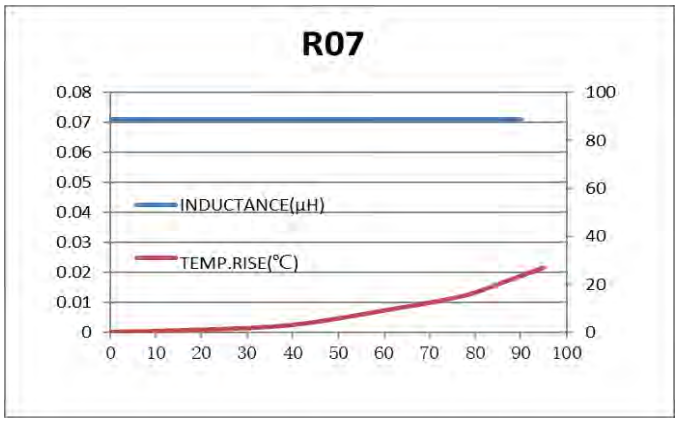
Table 2 - Lead (Pb) Free Solder (T_C)

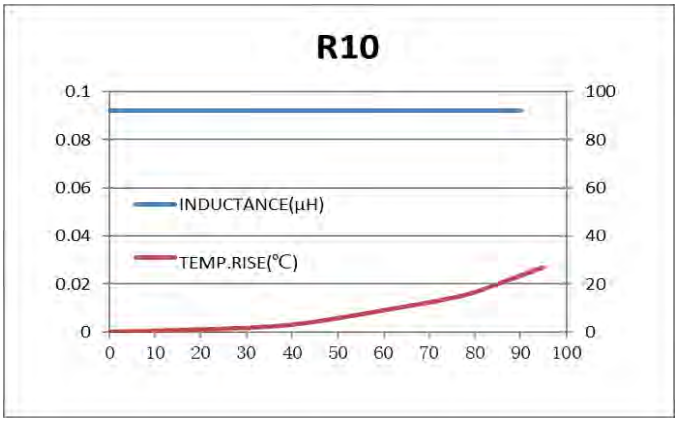
Package Thickness	Volume mm³ <350	Volume mm³ 350 - 2000	Volume mm³ >2000
<1.6mm	260°C	260°C	260°C
1.6 – 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

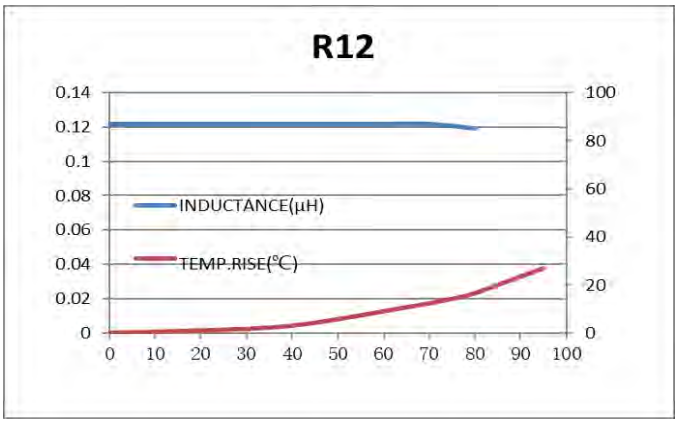
Profile Feature		Standard SnPb Solder	Lead (Pb) Free Solder
Preheat and Soak	• Temperature min. (T_{smin})	100°C	150°C
	• Temperature max. (T_{smax})	150°C	200°C
	• Time (T_{smin} to T_{smax}) (t_s)	60-120 Seconds	60-120 Seconds
Average ramp up rate T_{smax} to T_p		3°C/ Second Max.	3°C/ Second Max.
Liquidous temperature (T_L) Time at liquidous (t_L)		183°C 60-150 Seconds	217°C 60-150 Seconds
Peak package body temperature (T_P)*		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.

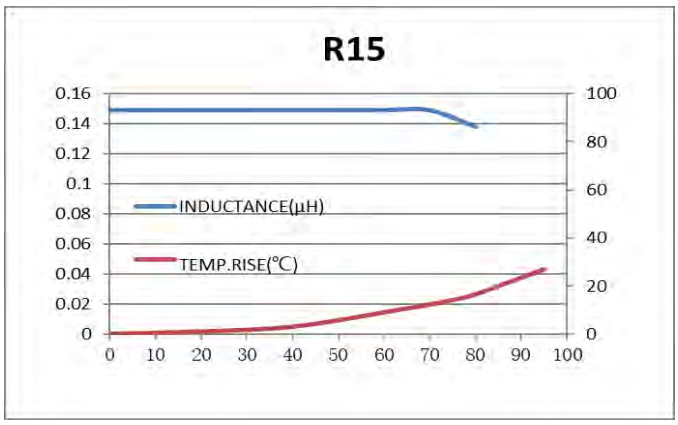
* Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.
** Tolerance for time at peak profile temperature (t_p) is defined as a supplier minimum and a user maximum.

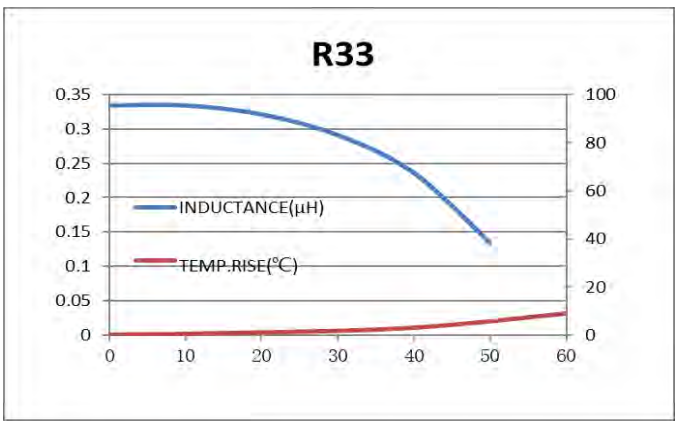
Inductance Characteristics:





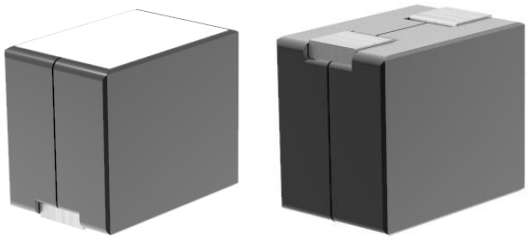


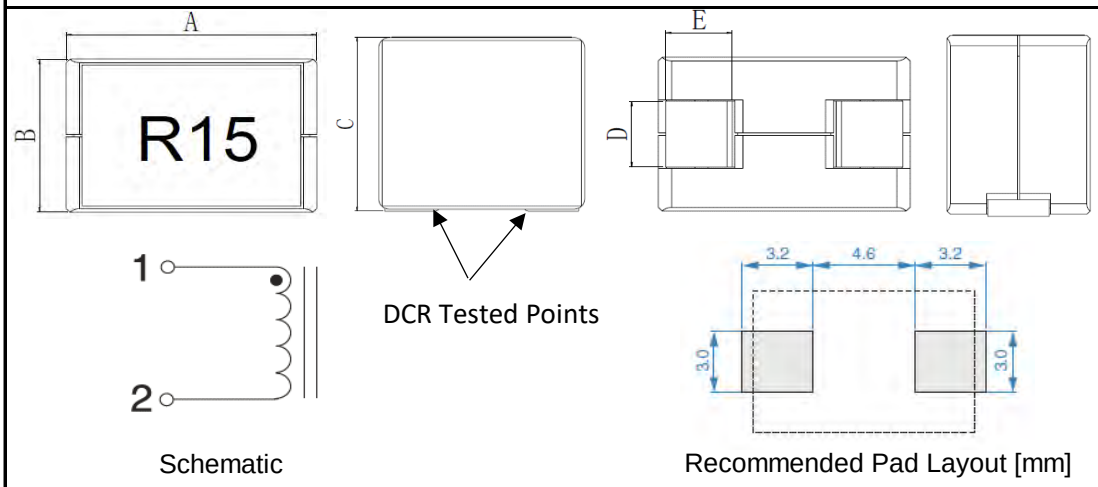




LOW PROFILE, HIGH CURRENT POWER BEAD INDUCTORS

1. SHAPE AND DIMENSIONS





Schematic

Recommended Pad Layout [mm]

UNIT(mm)	
A	10.0 (Max.)
B	7.0 (Max.)
C	9.0 (Max.)
D	2.7±0.25
E	2.5±0.25

2. PRODUCT SPECIFICATIONS

Part Number	OCL[1] (nH) ±15%	Irms[2] (Amps)	Isat[3] (Amps)	Width[4] (max.)	DCR(mΩ) @ +20 °C
HCB100709R18-R10	100	70	120	7.0	0.18±10%
HCB100709R18-R12	120	70	110	7.0	0.18±10%
HCB100709R18-R15	150	70	90	7.0	0.18±10%
HCB100709R18-R18	180	70	73	7.0	0.18±10%
HCB100709R18-R22	220	70	57	7.0	0.18±10%
HCB100709R18-R33	330	70	39	7.0	0.18±10%
HCB100709R18-R40	400	70	30	7.0	0.18±10%

Notes:

1. Open Circuit Inductance (OCL) Test Parameters:
100 kHz, 1 Vrms, 0.0 Adc, +25 °C
2. Irms: DC current for an approximate temperature rise 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 : Peak current for approximately 20% rolloff @+25 °C
4. Width: Product shape dimensions of width for different P/N

Remark: Measurement Equipment: WK3260B+WK3265B

3. TEMPERATURE RATING

Operating Temperature: -40°C to +125°C (Ambient plus self temperature rise)

Storage Temperature: In Original Packaging, <40°C ; <75%RH

4. PRODUCT IDENTIFICATION

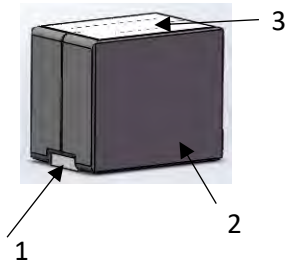
HCB 100709 RXX - RXX
1 2 3 4

1: Series Name
2: Product Dimensions
3: DCR Value (Ex. R18=0.18mΩ)
4: Inductance value (Ex. R15=150nH)

5. PRODUCT MARKING

RXX: Product Inductance Value (Ex. R15=150nH)
PI Label: Printed text

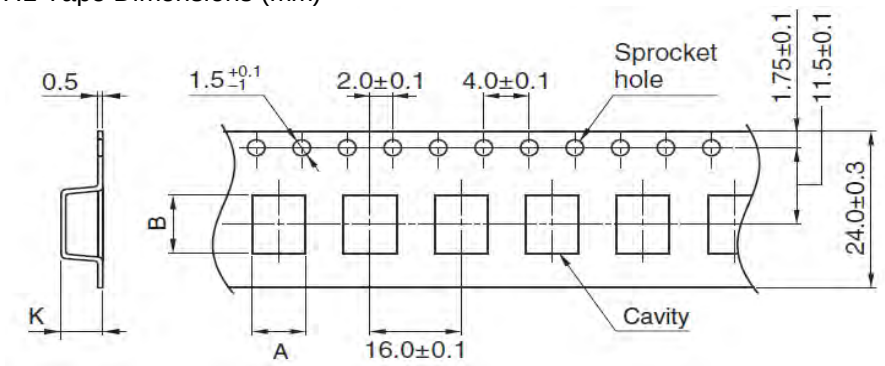
6. CONSTRUCTION AND MATERIAL LIST



No.	Part	Material
1	Clip	C1100
2	Core	Ferrite
3	Label	PI

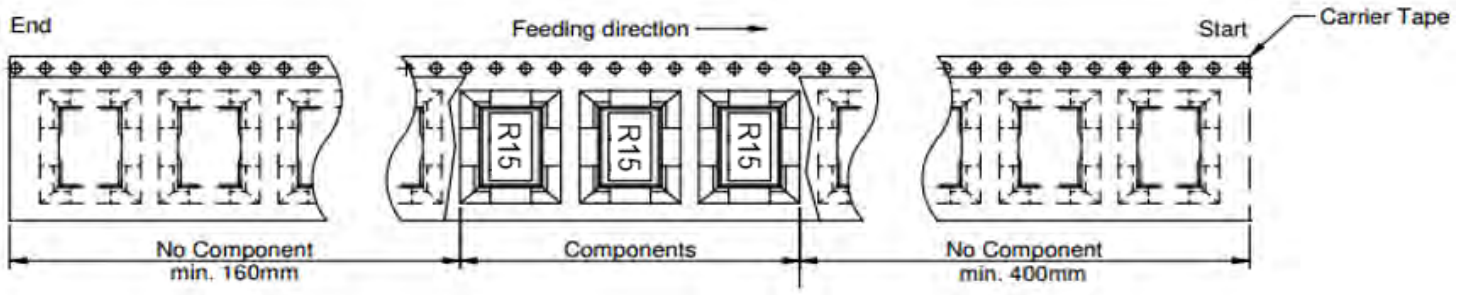
7.PACKAGING INFORMATION

7.1 Tape Dimensions (mm)

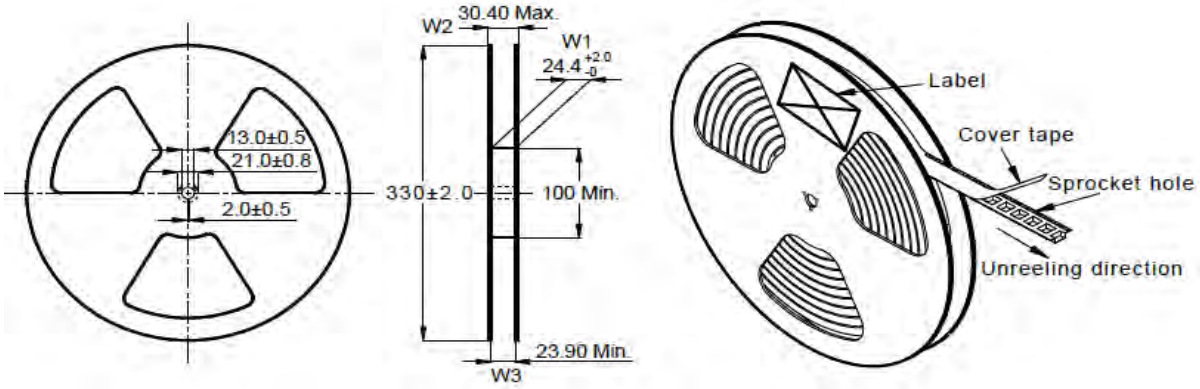


P/N	A(mm)	B(mm)	K(mm)
HCB100709R18 SERIES	7.1±0.1	10.2±0.1	9.2±0.1

7.2 Product Packing in Tape

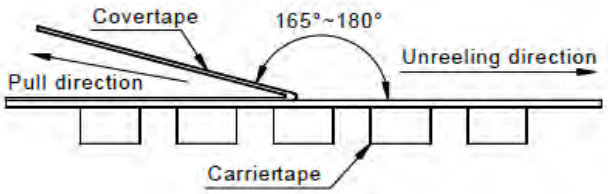


7.3 Reel Dimensions (mm)



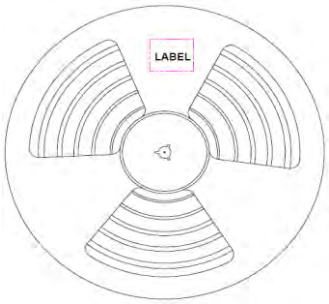
7.4 Cover tape peel off condition

Tape Width	Tape Type	Peel-off Force	Peel Speed
24mm	Heat-sealing	0.1~1.3N	300±10mm/M

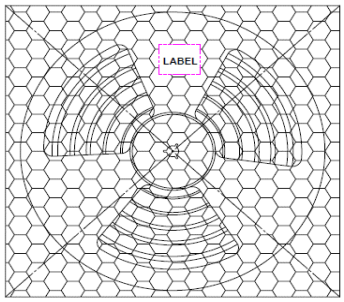


7.5 Packing Quantity

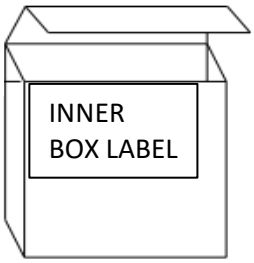
Part Number	Chips/Reel	Chips/Inner Box	Chips/Carton
HCB100709R18 SERIES	400	800 (2 reels/ PE bag / inner box)	2400 (3 inner boxes/ Carton)



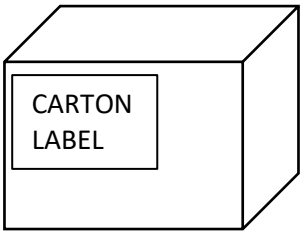
REEL



2 REELS IN A PE BAG

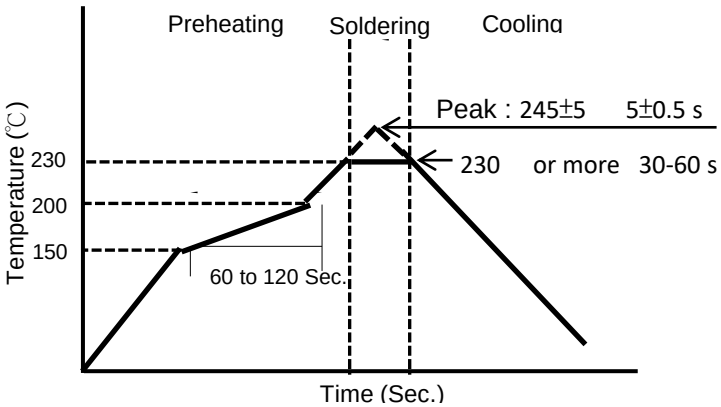


1 PE BAG IN A INNER BOX

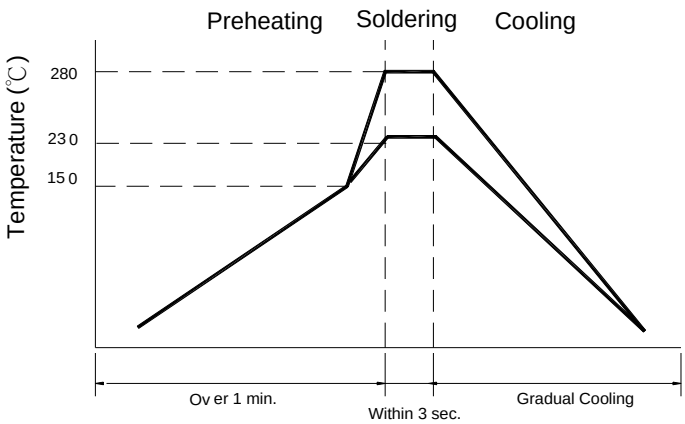


3 INNER BOXES IN A CARTON

8. RECOMMENDED SOLDERING PROFILE

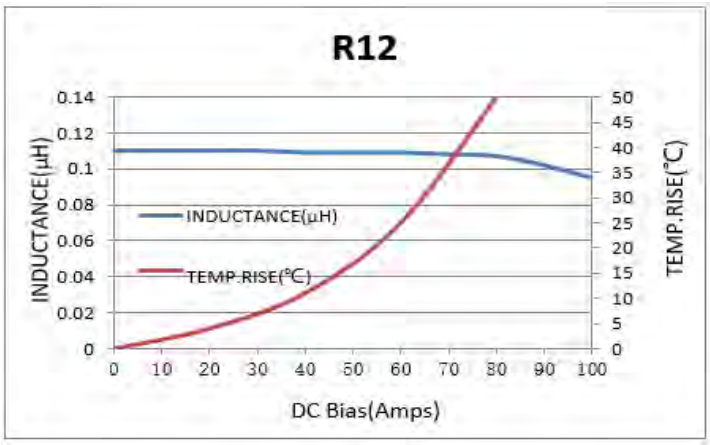


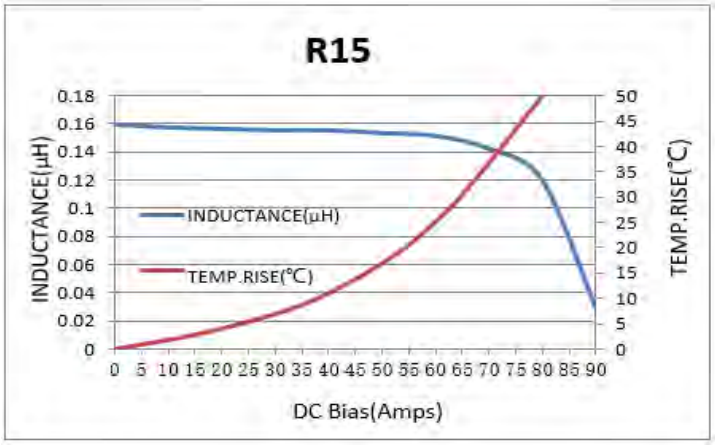
REFLOW SOLDERING

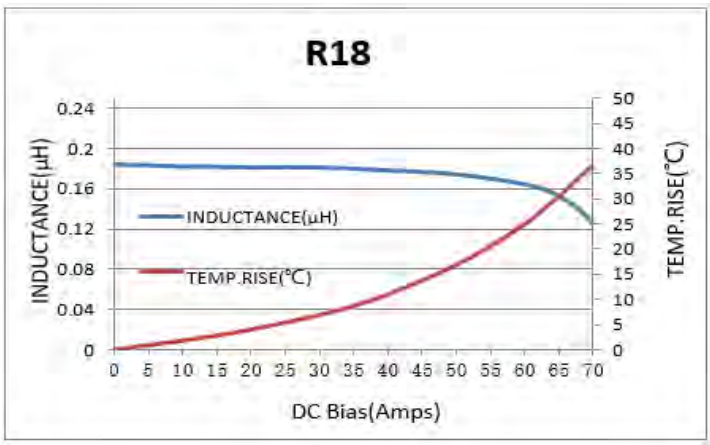


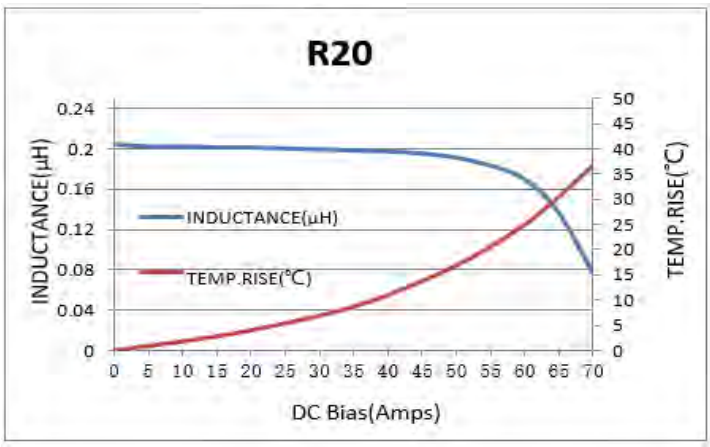
HAND SOLDERING

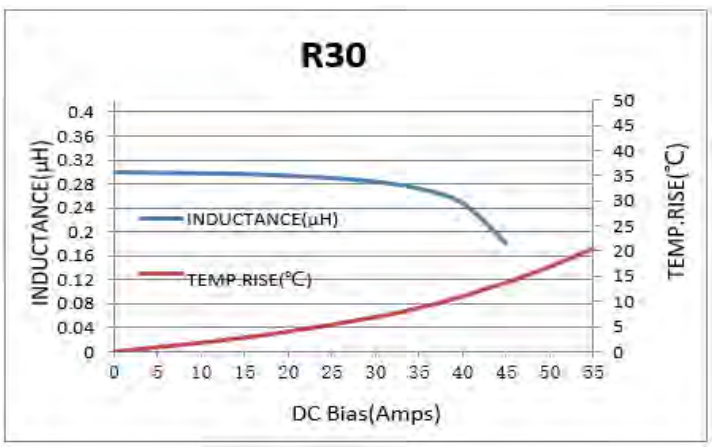
9. INDUCTANCE CHARACTERISTICS

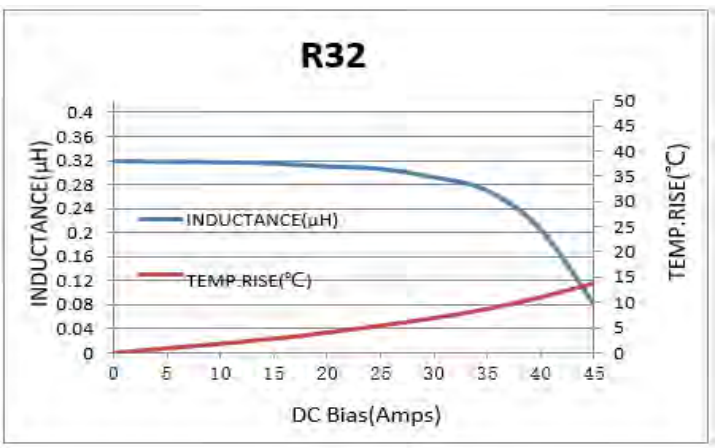


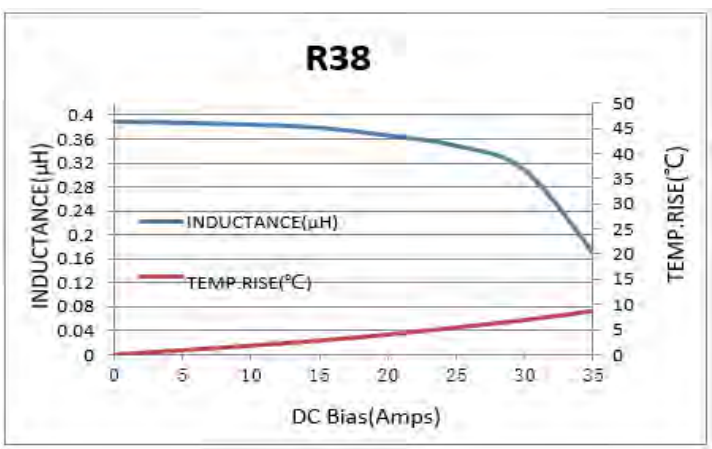


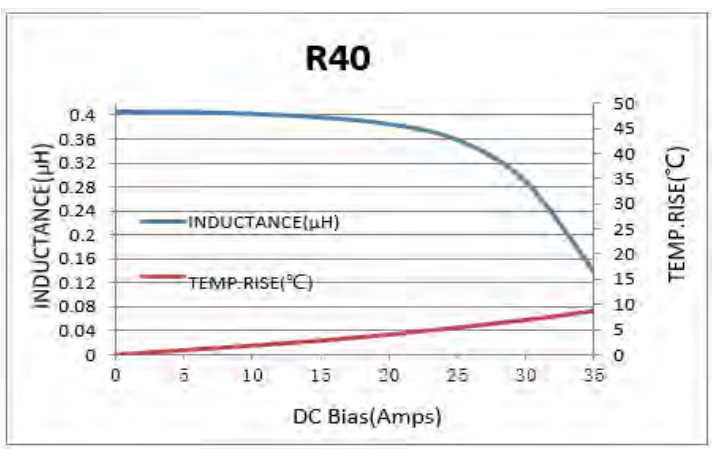




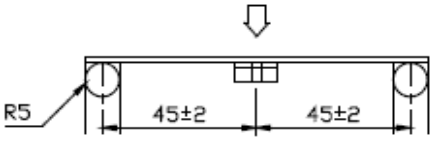






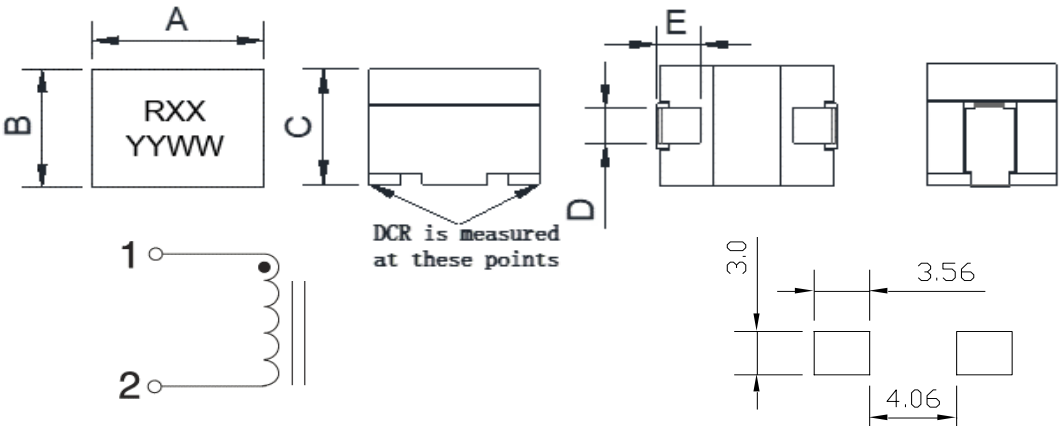


10. RELIABILITY TEST SPECIFICATIONS FOR POWER BEAD INDUCTORS

Item	Specification	Test Conditions
Operating temperature range	-40 ~ +125	
Storage temperature and humidity range	25±5 , 70% RH Max In Original Packaging: <40°C ; <75%RH	
Solderability	More than 90% of the terminal electrode should be covered with solder.	Soldering Temperature for Pb Product: 230± 5 Soldering Temperature for Pb-free Product: 260±5 Dip Time: 2~3s
Solder Heat Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	Reflow Temperature: Dip Type:265± 5 SMD Type:245± 5 Solder Resistance Time: ≥ 10s
Heat resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 500 hours in 125±5 and 2 hour drying under normal condition.
Cold resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 500 hours in -40±5 and 2 hour drying under normal condition.
Thermal shock	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	Firstly, test under -40 ±5 and 30±2 minutes, then put 3± 1minutes under room temperature, and test under 125 ±5 and 30±2 minutes, finally put 3±1minutes under room temperature, take this as one cycle (each temperature switching must be finished with 3 minutes), after 100 cycles and cooling 1H to room temperature before measuring L
Humidity Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 500 hours in 40±2 and 90 to 95% humidity , and 2 hour drying under normal condition.
Vibration Test	Inductance within ±5% of initial value and appearance shall not break.	After vibration for 1hour, In each of three orientations at sweep vibration (10~55~10Hz) with 1.52mm P-P Amplitudes.
Drop Test	Inductance within ±5% of initial value and appearance shall not break.	Drop the packaged products on the concrete floor from 100cm height, one corner and three edges and six faces need to do free dropping twice for each of them
Salt Spray Test	Inductance within ±5% of initial value and appearance shall not break.	Test Temperature is 35 and Pressure Barrel Temperature is 47 . After 24hrs to take it out and wash with clear water and cooling 1H~2H before visual cheking
Substrate Bending	The terminal electrode and the ferrite must not be damaged	The sample shall be soldered onto the printed circuit board as below figure and a 10N load applied unitil the figure in the arrow direction. There shall be direction is made approximately 3mm.(keep time 30 seconds) 

LOW PROFILE, HIGH CURRENT POWER BEAD INDUCTORS

1. SHAPE AND DIMENSIONS



Schematic

Recommended Pad Layout [mm]

UNIT(mm)	
A	10.0 (Max.)
B	8.0 (Max.)
C	8.0 (Max.)
D	2.2±0.25
E	2.5±0.25

2. PRODUCT SPECIFICATIONS

Part Number	OCL[1] (nH) ±15%	Irms[2] (Amps)	Isat[3] (Amps)	Height[4] (max.)	DCR(mΩ) @ +20 °C
HCB100808AR18-R12	120	70	94	8.0	0.18±6%
HCB100808AR18-R15	150	70	79	8.0	0.18±6%
HCB100808AR18-R18	180	70	65	8.0	0.18±6%
HCB100808AR18-R20	200	70	59	8.0	0.18±6%
HCB100808AR18-R30	300	70	38	8.0	0.18±6%
HCB100808AR18-R32	320	70	35	8.0	0.18±6%
HCB100808AR18-R38	380	70	28	8.0	0.18±6%
HCB100808AR18-R40	400	70	26	8.0	0.18±6%

Notes:

1. Open Circuit Inductance (OCL) Test Parameters:
100 kHz, 1 Vrms, 0.0 Adc, +25 °C
2. Irms: DC current for an approximate temperature rise 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 : Peak current for approximately 20% rolloff @+25 °C
4. Height: Product shape dimensions of height for different P/N
Remark: Measurement Equipment: WK3260B+WK3265B

3. TEMPERATURE RATING

Operating Temperature: -40°C to +125°C (Ambient plus self temperature rise)

Storage Temperature: In Original Packaging, <40°C ; <75%RH

4. PRODUCT IDENTIFICATION

HCB	100808	A	RXX	-	RXX
1	2	3	4		5

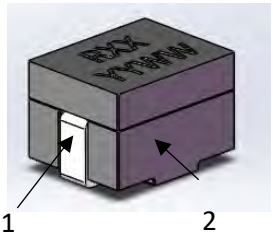
1: Series Name
2: Product Dimensions
3: Distinguish Code
4: DCR Value (Ex. R18=0.18mΩ)
5: Inductance value (Ex. R15=150nH)

5. PRODUCT MARKING

RXX: Product Inductance Value (Ex. R15=150nH)

YYWW: Manufactured Datecode (Ex. 2105=2021Year, 05 Week)

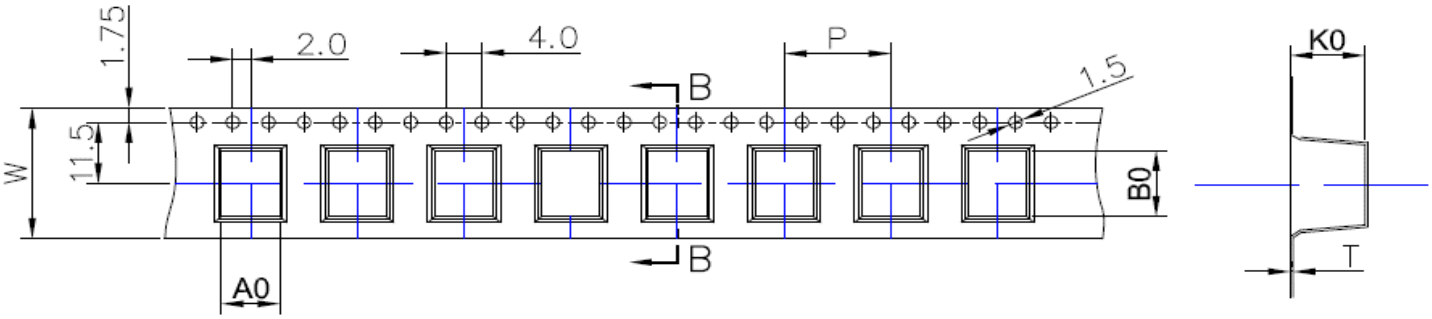
6. CONSTRUCTION AND MATERIAL LIST



No.	Part	Material
1	Clip	C1100
2	Core	Ferrite

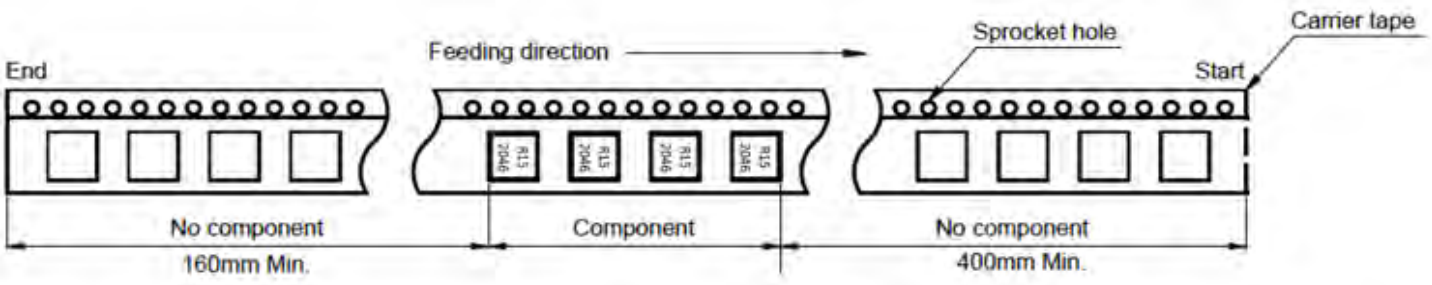
7.PACKAGING INFORMATION

7.1 Tape Dimensions (mm)

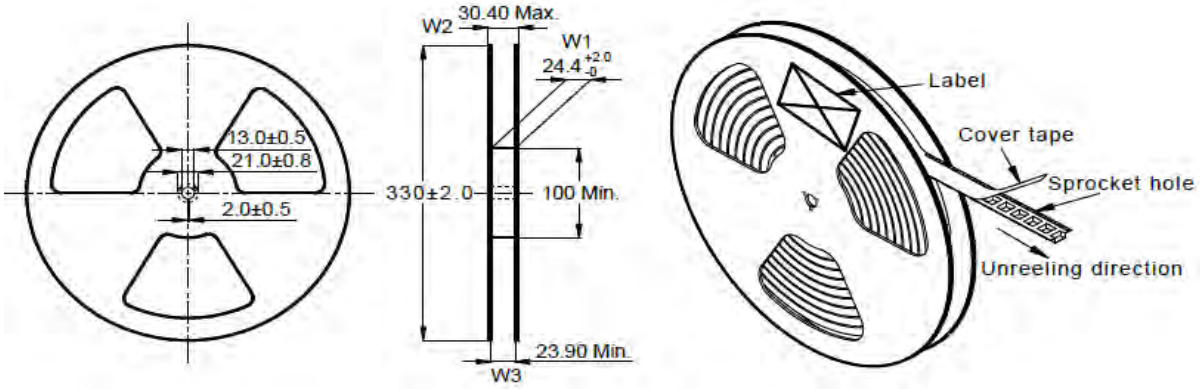


P/N	A0(mm)	B0(mm)	K0(mm)	P(mm)	T(mm)	W(mm)
HCB100808AR18 SERIES	8.2±0.1	10.2±0.1	8.2±0.1	12.0±0.1	0.4±0.05	24.0±0.3

7.2 Product Packing in Tape

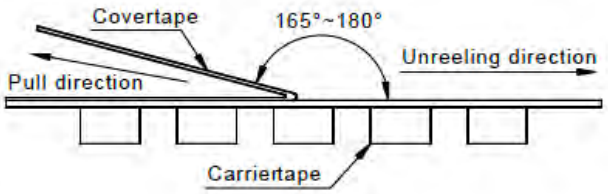


7.3 Reel Dimensions (mm)



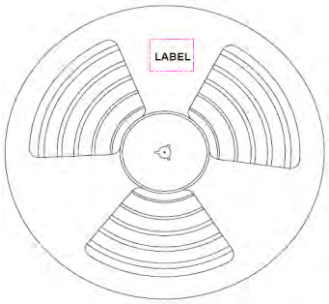
7.4 Cover tape peel off condition

Tape Width	Tape Type	Peel-off Force	Peel Speed
24mm	Heat-sealing	0.1~1.3N	300±10mm/M

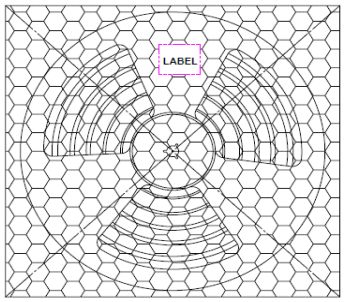


7.5 Packing Quantity

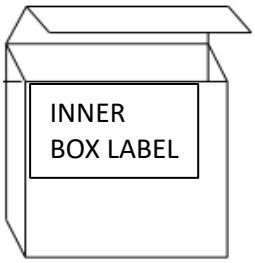
Part Number	Chips/Reel	Chips/Inner Box	Chips/Carton
HCB100808AR18 SERIES	600	1200 (2 reels/ PE bag / inner box)	3600 (3 inner boxes/ Carton)



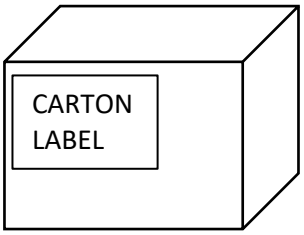
REEL



2 REELS IN A PE BAG

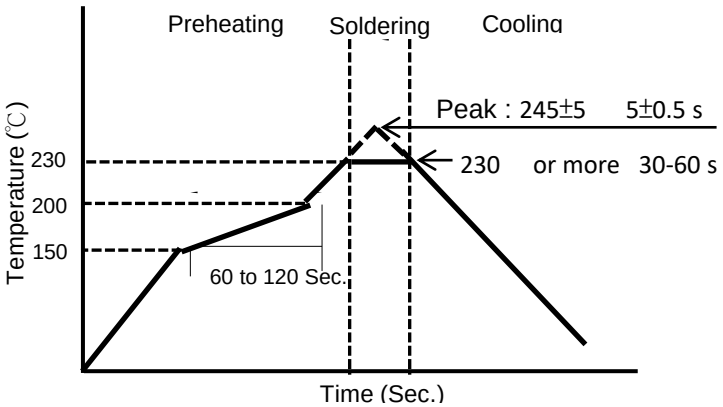


1 PE BAG IN A INNER BOX

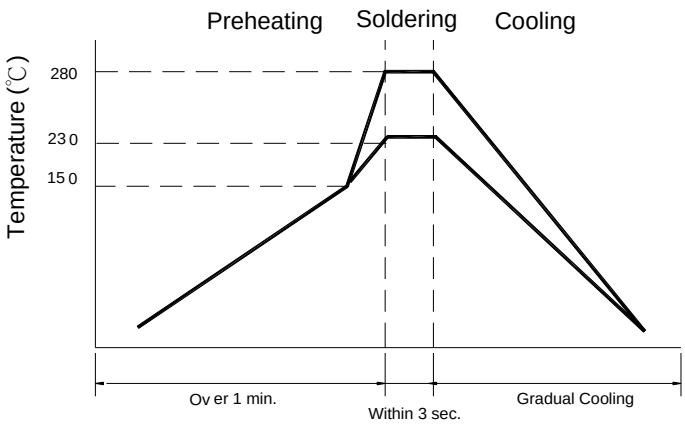


3 INNER BOXES IN A CARTON

8. RECOMMENDED SOLDERING PROFILE

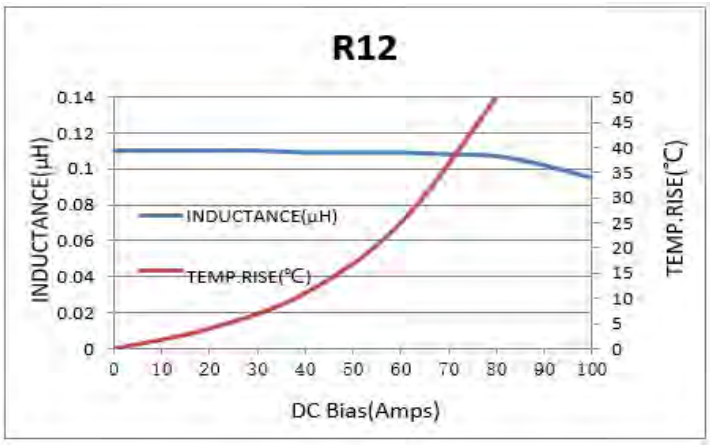


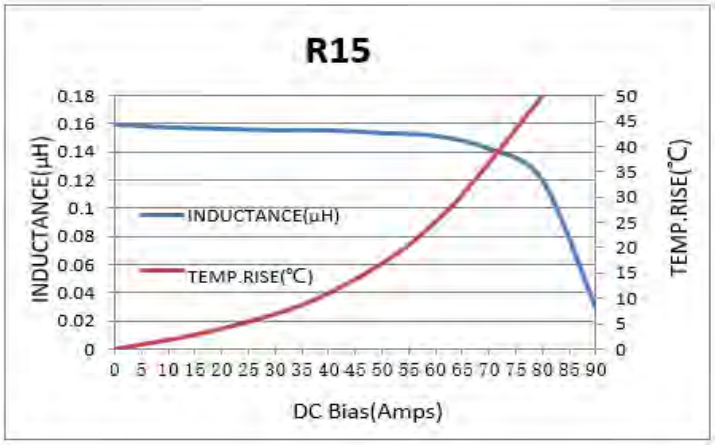
REFLOW SOLDERING

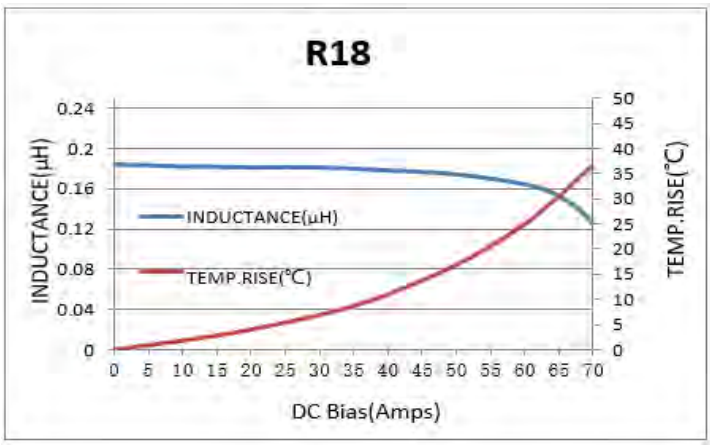


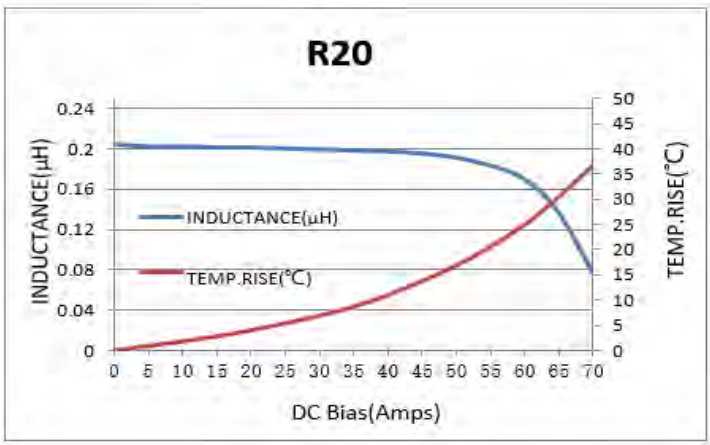
HAND SOLDERING

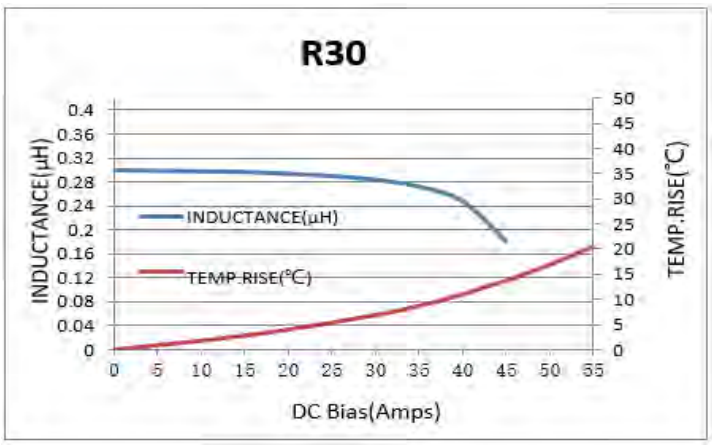
9. INDUCTANCE CHARACTERISTICS

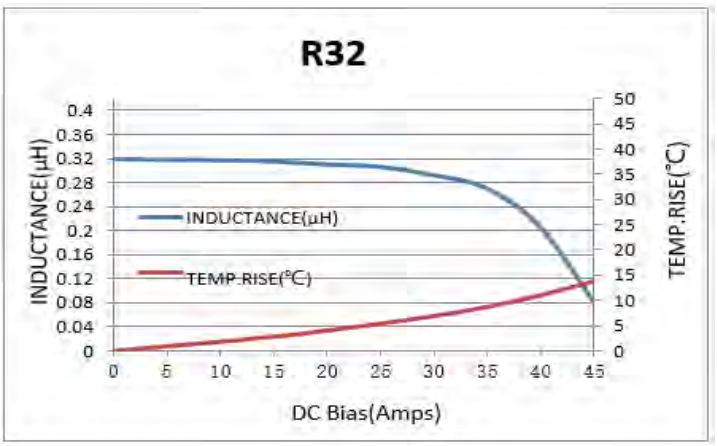


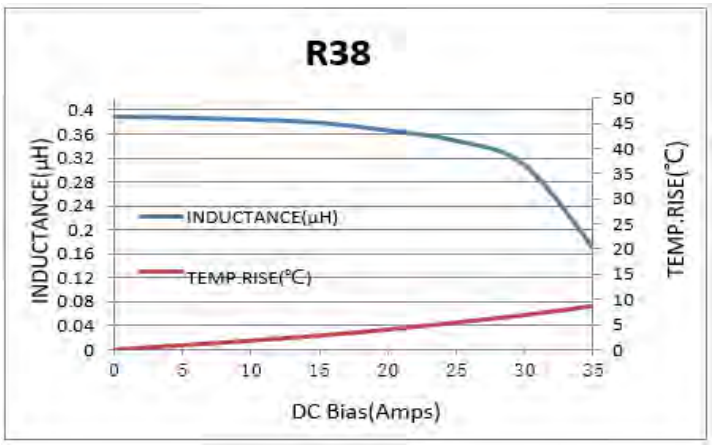


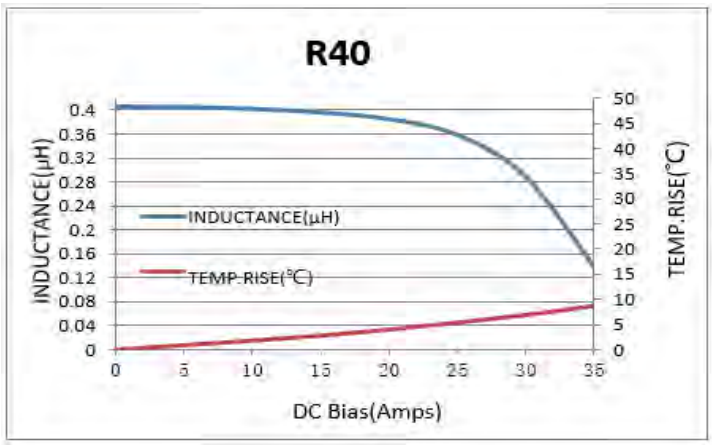




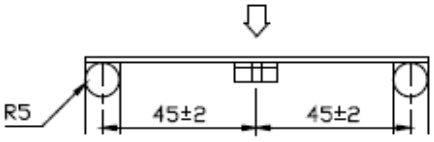




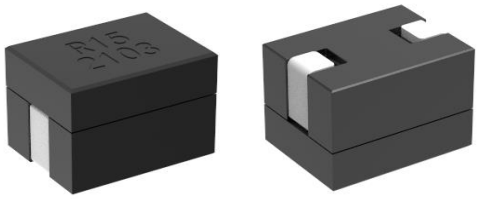




10. RELIABILITY TEST SPECIFICATIONS FOR POWER BEAD INDUCTORS

Item	Specification	Test Conditions
Operating temperature range	-40 ~ +125	
Storage temperature and humidity range	25±5 , 70% RH Max In Original Packaging: <40°C ; <75%RH	
Solderability	More than 90% of the terminal electrode should be covered with solder.	Soldering Temperature for Pb Product: 230± 5 Soldering Temperature for Pb-free Product: 260±5 Dip Time: 2~3s
Solder Heat Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	Reflow Temperature: Dip Type:265± 5 SMD Type:245± 5 Solder Resistance Time: ≥ 10s
Heat resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 500 hours in 125±5 and 2 hour drying under normal condition.
Cold resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 500 hours in -40±5 and 2 hour drying under normal condition.
Thermal shock	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	Firstly, test under -40 ±5 and 30±2 minutes, then put 3± 1minutes under room temperature, and test under 125 ±5 and 30±2 minutes, finally put 3±1minutes under room temperature, take this as one cycle (each temperature switching must be finished with 3 minutes), after 100 cycles and cooling 1H to room temperature before measuring L
Humidity Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. The appearance shall not break.	After 500 hours in 40±2 and 90 to 95% humidity , and 2 hour drying under normal condition.
Vibration Test	Inductance within ±5% of initial value and appearance shall not break.	After vibration for 1hour, In each of three orientations at sweep vibration (10~55~10Hz) with 1.52mm P-P Amplitudes.
Drop Test	Inductance within ±5% of initial value and appearance shall not break.	Drop the packaged products on the concrete floor from 100cm height, one corner and three edges and six faces need to do free dropping twice for each of them
Salt Spray Test	Inductance within ±5% of initial value and appearance shall not break.	Test Temperature is 35 and Pressure Barrel Temperature is 47 . After 24hrs to take it out and wash with clear water and cooling 1H~2H before visual cheking
Substrate Bending	The terminal electrode and the ferrite must not be damaged	The sample shall be soldered onto the printed circuit board as below figure and a 10N load applied unitil the figure in the arrow direction. There shall be direction is made approximately 3mm.(keep time 30 seconds) 

Low Profile, High Current Power Inductors



Features

- SMD inductors
- High current and lower DCR
- Ferrite core material
- Operating temperature range: –40 to +125°C (including self-temperature rise)
- Shielded construction

Environmental Data

- Storage Conditions (In Original Packaging): <40°C ; <75%RH
- Operating temperature range: -40°C to +125°C (Ambient plus self temperature rise)
- Solder reflow temperature: J-STD-020D compliant

Applications

- Servers
- Multi-phase and Vcore regulators
- Voltage Regulator Modules (VRMs)
  - Server and desktop
  - Central processing unit (CPU)
  - Graphics processing unit (GPU)
  - Specific integrated circuit (ASIC)
  - High power density
- Notebook regulators
- Battery power systems
- Graphics cards

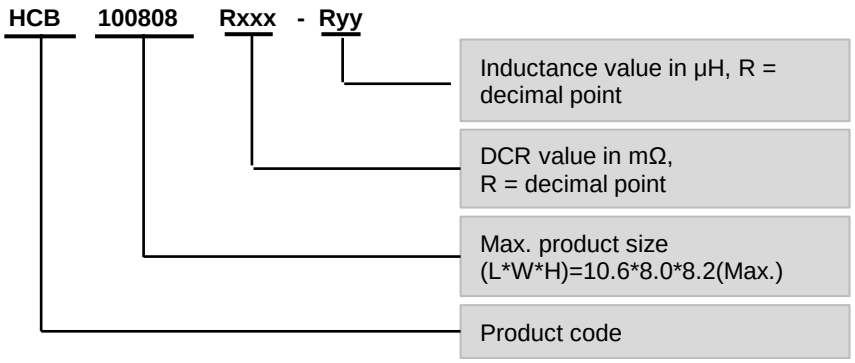
Product Specifications

Part Number[5]	OCL[1] (nH) ±15%	Irms[2] (Amps)	Isat[3] (Amps)	Height[4] (max.)	DCR(mΩ) typical @ +20 °C
HCB100808R18-R10	100	74	105	8.2	0.18
HCB100808R18-R12	120	74	105	8.1	0.18
HCB100808R18-R15	150	74	88	8.1	0.18
HCB100808R18-R17	170	74	80	8.1	0.18
HCB100808R18-R22	220	74	55	8.0	0.18
HCB100808R18-R26	260	74	49	8.0	0.18
HCB100808R18-R32	320	74	45	8.0	0.18

Notes:

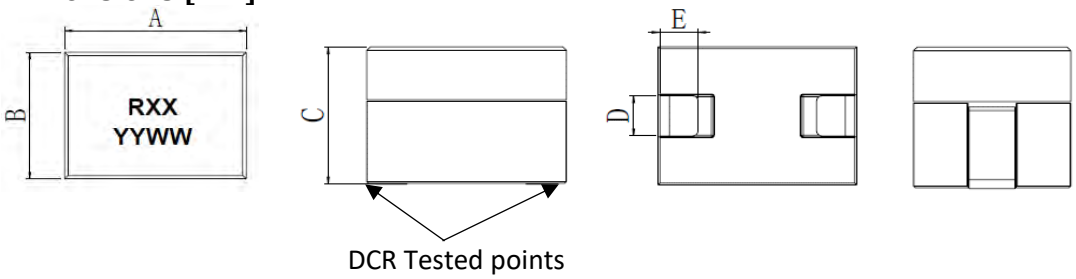
1. Open Circuit Inductance (OCL) Test Parameters: 100 kHz, 0.1 Vrms, 0.0 Adc, +25 °C
2. Irms: DC current for an approximate temperature rise of 40 °C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow, and proximity of other heat generating components 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 : Peak current for approximately 20% rolloff @+25 °C
4. Height: Product shape dimensions of height for different P/N
Remark: Measurement Equipment: WK3260B+WK3265B

5. Part Number Definition:



Technical Data HCB100808R18 Series

Dimensions:[mm]

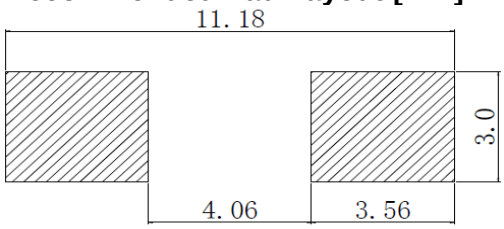


TYPE	SIZE
A	10.6 (Max.)
B	8.0 (Max.)
C	See Height column in table of Product Specifications
D	2.25 (Typ.)
E	2.2 (Typ.)

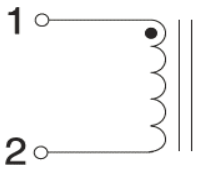
Product Marking:

RXX	Product Inductance Value(Ex. R15=150nH)
YYWW	Manufactured Datecode (Ex. 2105=2021Year ; 05 Week)

Recommended Pad Layout:[mm]

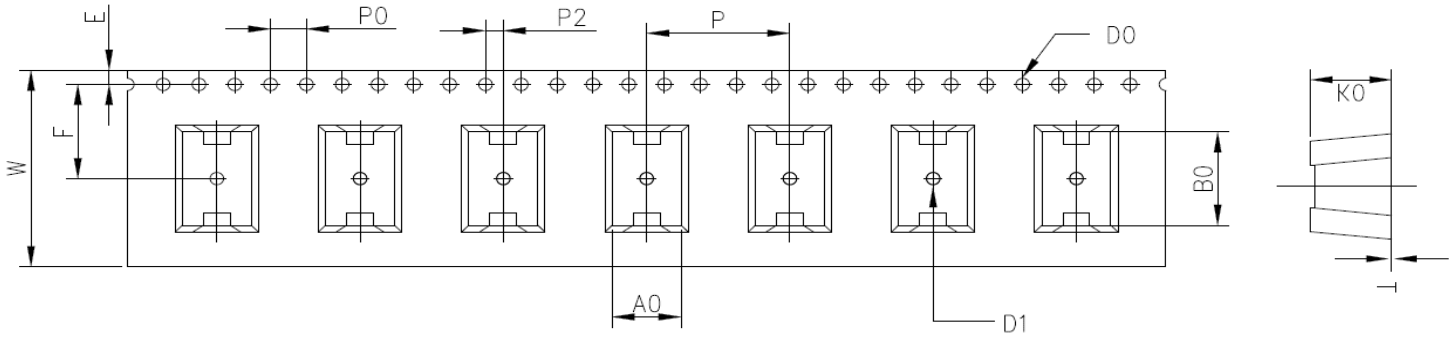


Schematic:

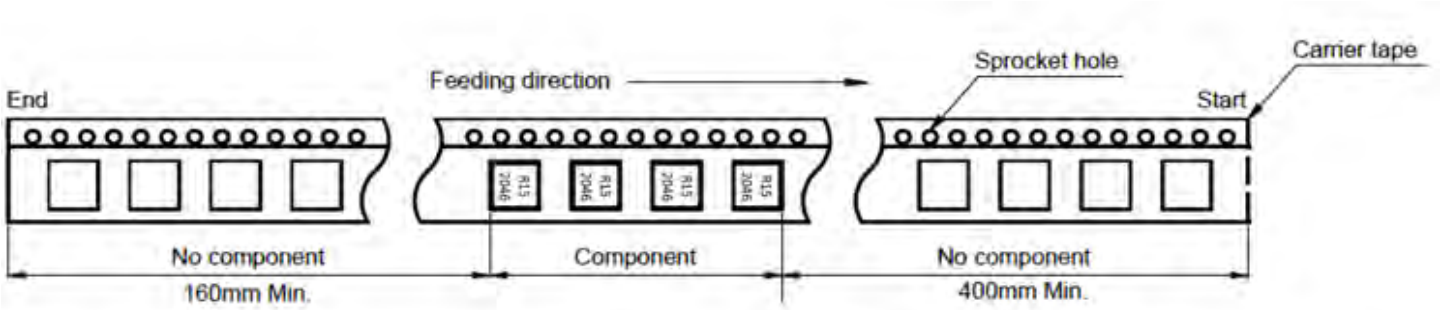


Packaging Information:[mm]

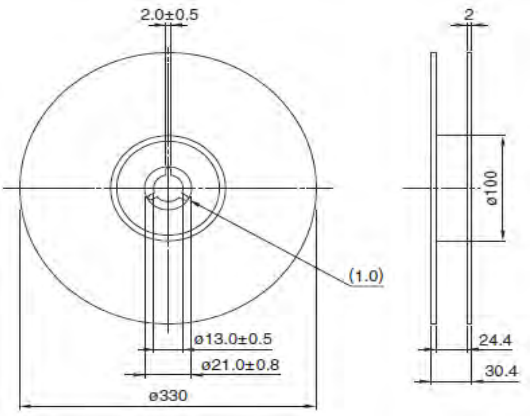
Tape Dimensions



Material	A0(±0.1)	B0(±0.1)	W (±0.3)	T (±0.05)	K0(±0.1)	P(±0.1)	F(±0.1)	E(±0.1)	D0(±0.1)	P0(±0.1)	P2(±0.1)	D1(±0.1)
Polystyrene	8.40	12.20	24.00	0.35	8.50	16.00	11.50	1.75	1.50	4.00	2.00	1.50

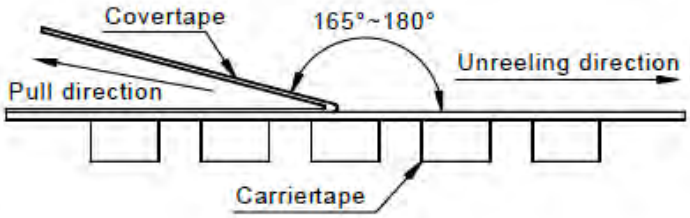


Reel Dimensions



Cover tape peel off condition

Tape Width	Peel-off Force	Peel Speed
24mm	0.1~1.3N	300±10mm/M



Packing Quantity

Part Number	Quantity (pcs/reel)
HCB100808R18 SERIES	400

Recommended Reflow Profile:

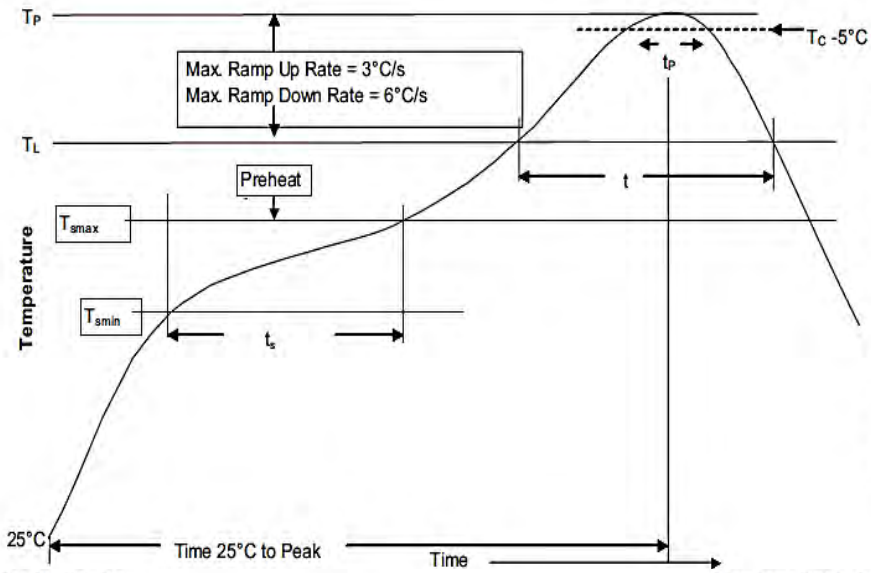


Table 1 - Standard SnPb Solder (T_C)

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

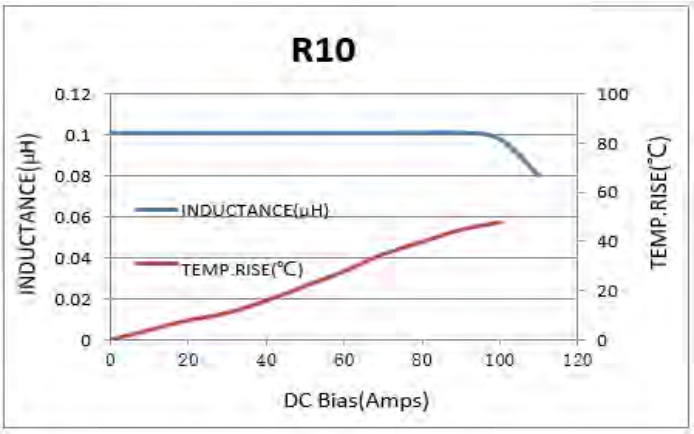
Table 2 - Lead (Pb) Free Solder (T_C)

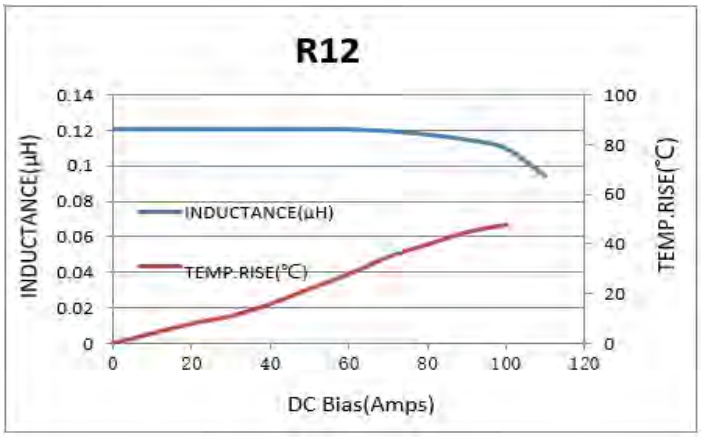
Package Thickness	Volume mm³ <350	Volume mm³ 350 - 2000	Volume mm³ >2000
<1.6mm	260°C	260°C	260°C
1.6 – 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

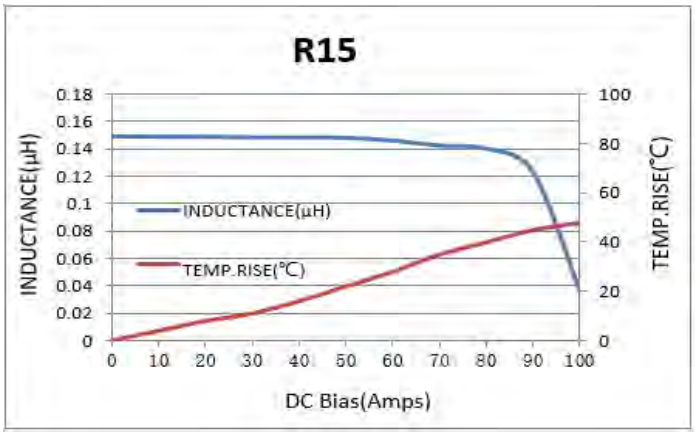
Profile Feature		Standard SnPb Solder	Lead (Pb) Free Solder
Preheat and Soak	• Temperature min. (T_{smin})	100°C	150°C
	• Temperature max. (T_{smax})	150°C	200°C
	• Time (T_{smin} to T_{smax}) (t_s)	60-120 Seconds	60-120 Seconds
Average ramp up rate T_{smax} to T_p		3°C/ Second Max.	3°C/ Second Max.
Liquidous temperature (T_L) Time at liquidous (t_L)		183°C 60-150 Seconds	217°C 60-150 Seconds
Peak package body temperature (T_P)*		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.

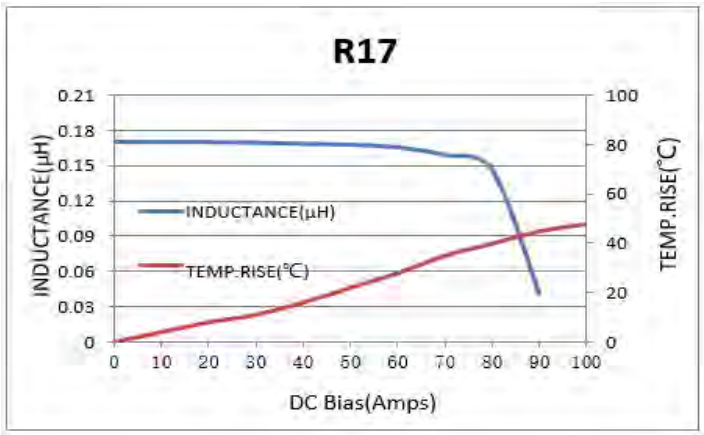
* Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.
** Tolerance for time at peak profile temperature (t_p) is defined as a supplier minimum and a user maximum.

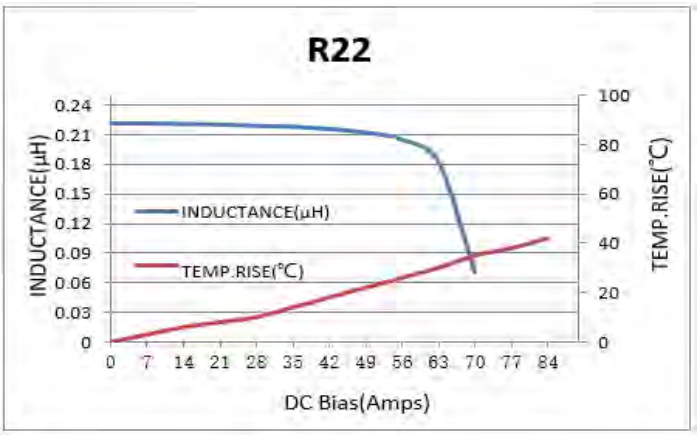
Inductance Characteristics:

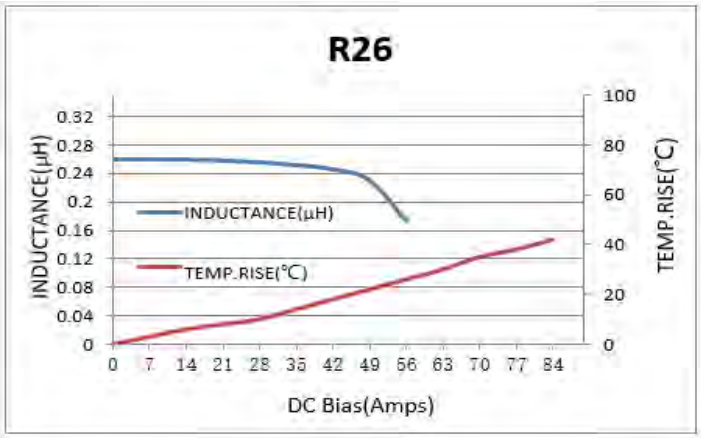


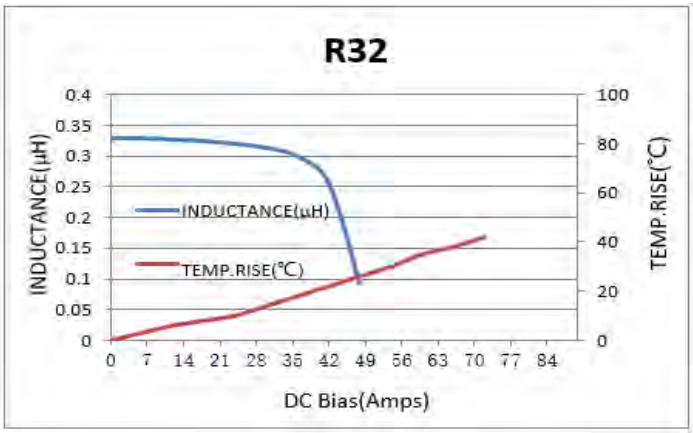












Low Profile, High Current Power Inductors

Features

- SMD inductors
- High current and lower DCR
- Ferrite core material
- Operating temperature range: –40 to +125°C (including self-temperature rise)
- Shielded construction

Environmental Data

- Storage Conditions (In Original Packaging): <40°C ; <75%RH
- Operating temperature range: -40°C to +125°C (Ambient plus self temperature rise)
- Solder reflow temperature: J-STD-020D compliant

Applications

- Servers
- Multi-phase and Vcore regulators
- Voltage Regulator Modules (VRMs)
  - Server and desktop
  - Central processing unit (CPU)
  - Graphics processing unit (GPU)
  - Specific integrated circuit (ASIC)
  - High power density
- Notebook regulators
- Battery power systems
- Graphics cards

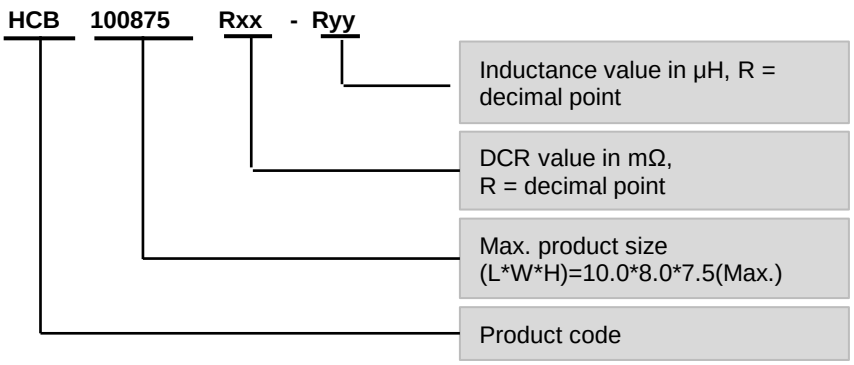
Product Specifications

Part Number[5]	OCL[1] (nH) ±15%	Irms[2] (Amps)	Isat[3] (Amps)	Height (max.)	DCR(mΩ) typical @ +20 °C
HCB100875R29-R10	100	56	80	7.5	0.29
HCB100875R29-R12	120	56	80	7.5	0.29
HCB100875R29-R15	150	56	73	7.5	0.29
HCB100875R29-R18	180	56	65	7.5	0.29
HCB100875R29-R20	200	56	60	7.5	0.29
HCB100875R29-R24	240	56	50	7.5	0.29
HCB100875R29-R27	270	56	46	7.5	0.29
HCB100875R29-R32	320	56	35	7.5	0.29
HCB100875R29-R34	340	56	34	7.5	0.29
HCB100875R29-R37	370	56	30	7.5	0.29

Notes:

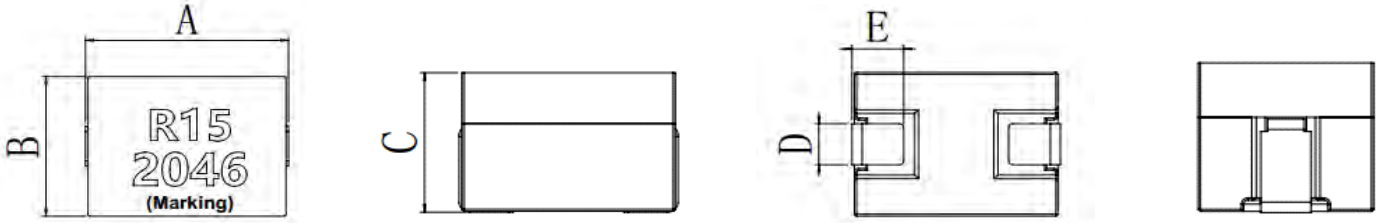
1. Open Circuit Inductance (OCL) Test Parameters: 100 kHz, 0.1 Vrms,0.0 Adc, +25 °C
2. Irms: DC current for an approximate temperature rise of 40 °C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow, and proximity of other heat generating components 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 : Peak current for approximately 20% rolloff @+25 °C
4. Measurement Equipment: WK3260B+WK3265B

5. Part Number Definition:



Technical Data HCB100875R29 Series

Dimensions:[mm]



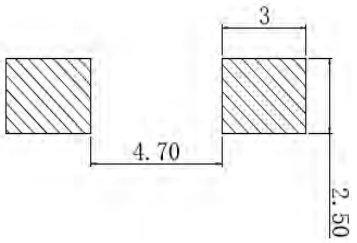
Dimensions

Type	Size
A	10.2±0.2
B	8.0 max.
C	7.5 max.
D	2.2±0.2
E	2.54±0.5

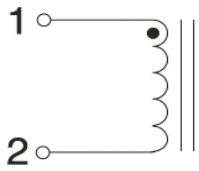
Product Marking:

Part Code	Ryy
Date Code	YYWW

Recommended Pad Layout:[mm]

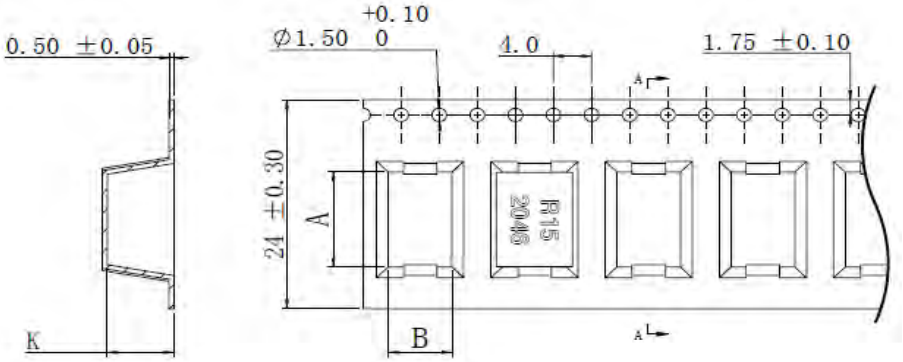


Schematic:

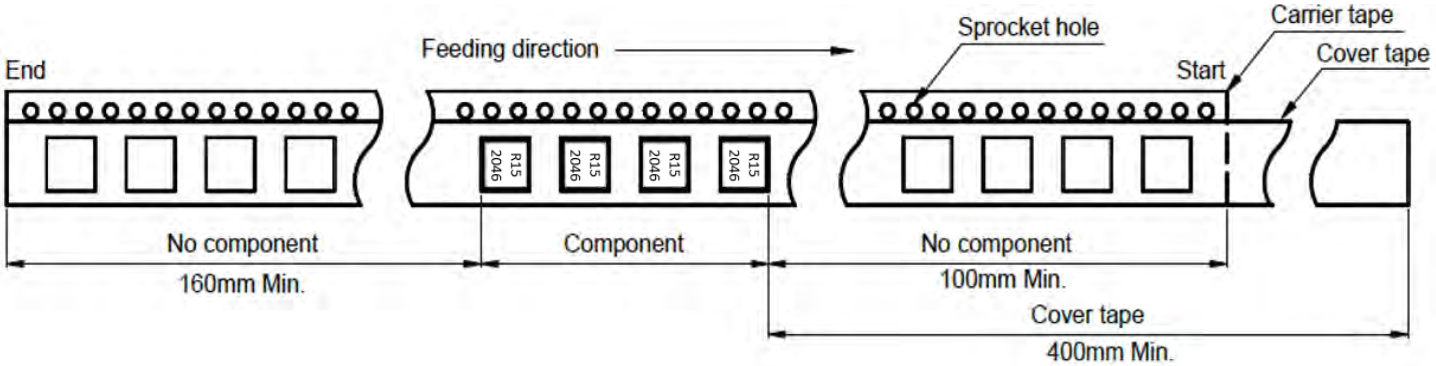


Packaging Information:[mm]

Tape Dimensions

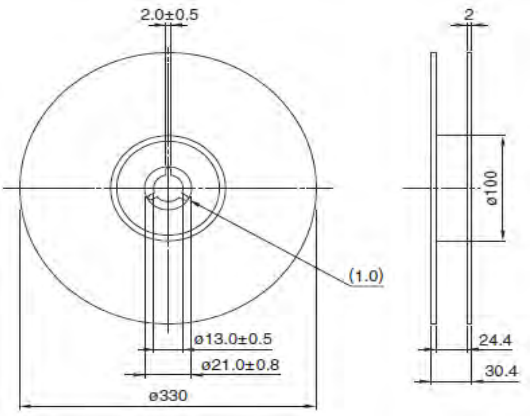


Part Number	A	B	K
HCB100875R29 Type	10.8±0.1	8.0±0.1	7.7±0.1



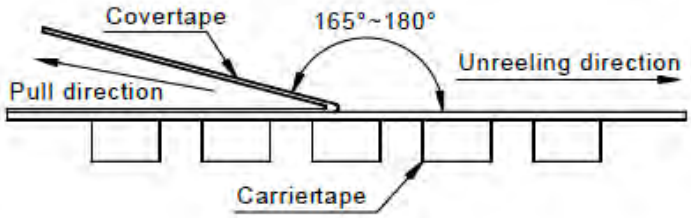
NO.8,YanTa Northern road,xi`anCity Shaanxi pro.china TEL：+86-29-87851916 FAX：+86-29-87851840 E-mail：sales@shinhom.com.cn

Reel Dimensions



Cover tape peel off condition

Tape Width	Peel-off Force	Peel Speed
16/24mm	0.1~1.3N	300±10mm/M



Packing Quantity

Part Number	Quantity (pcs/reel)
HCB100875R29 Type	700

Recommended Reflow Profile:

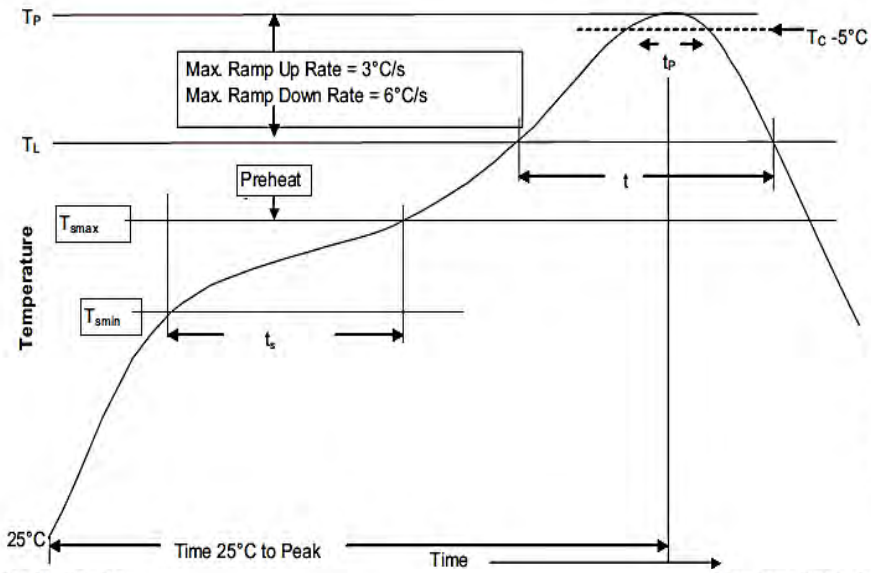


Table 1 - Standard SnPb Solder (T_C)

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

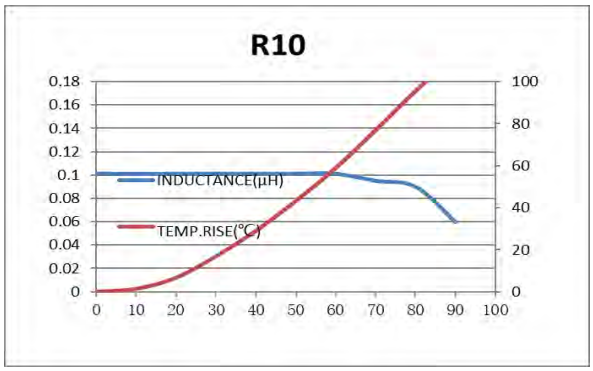
Table 2 - Lead (Pb) Free Solder (T_C)

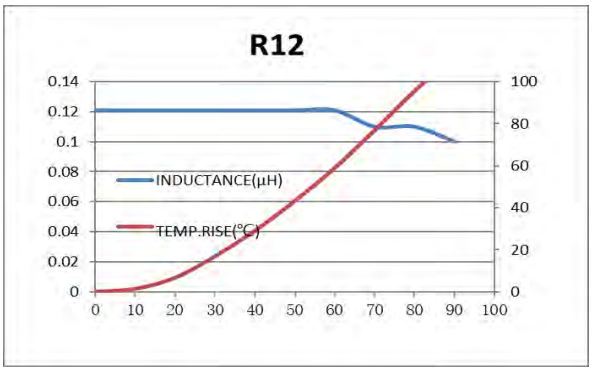
Package Thickness	Volume mm³ <350	Volume mm³ 350 - 2000	Volume mm³ >2000
<1.6mm	260°C	260°C	260°C
1.6 – 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

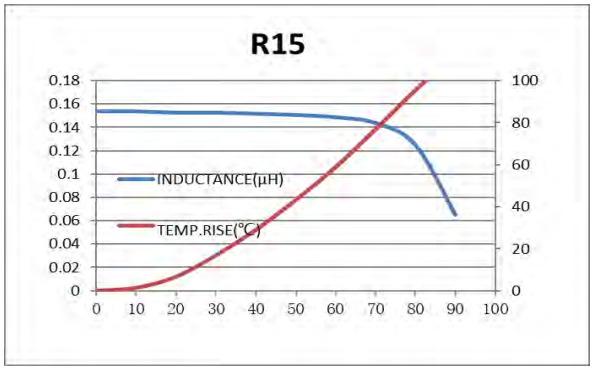
Profile Feature		Standard SnPb Solder	Lead (Pb) Free Solder
Preheat and Soak	• Temperature min. (T_{smin})	100°C	150°C
	• Temperature max. (T_{smax})	150°C	200°C
	• Time (T_{smin} to T_{smax}) (t_s)	60-120 Seconds	60-120 Seconds
Average ramp up rate T_{smax} to T_p		3°C/ Second Max.	3°C/ Second Max.
Liquidous temperature (T_L) Time at liquidous (t_L)		183°C 60-150 Seconds	217°C 60-150 Seconds
Peak package body temperature (T_P)*		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.

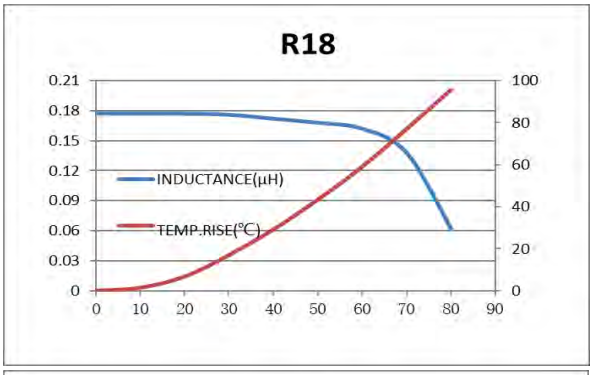
* Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.
** Tolerance for time at peak profile temperature (t_p) is defined as a supplier minimum and a user maximum.

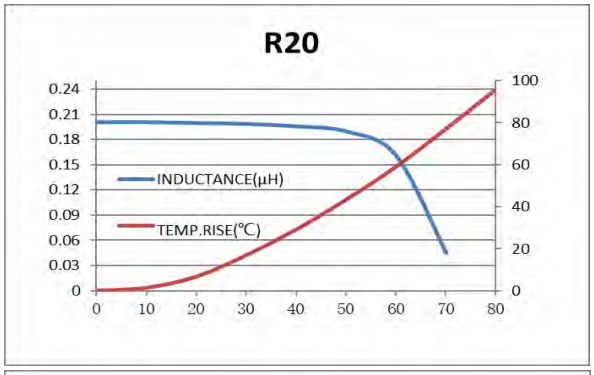
Inductance Characteristics:

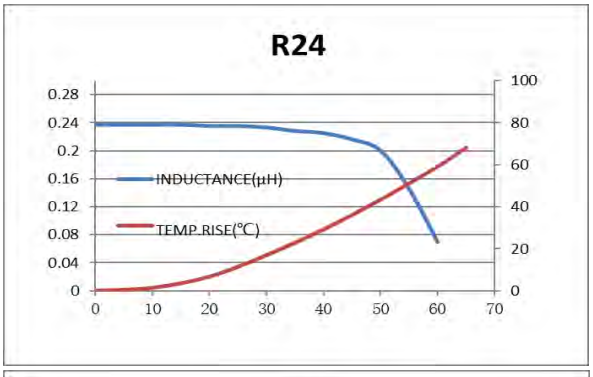


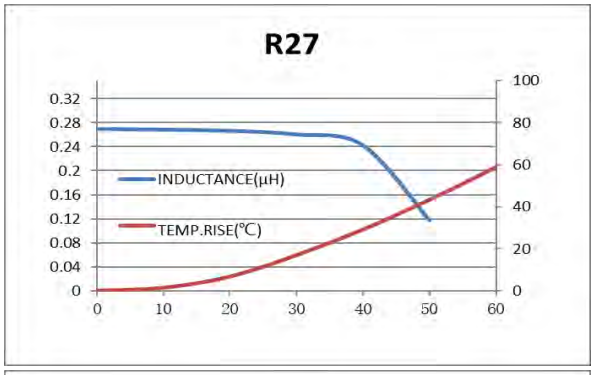


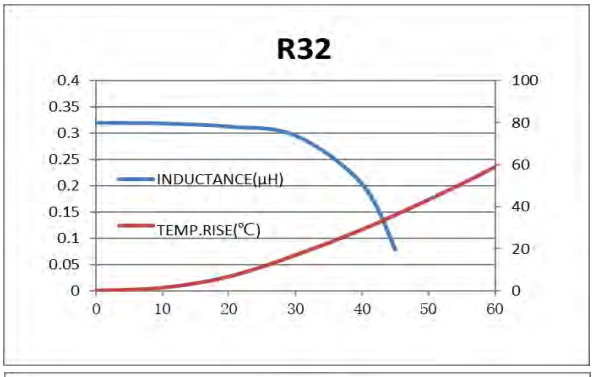


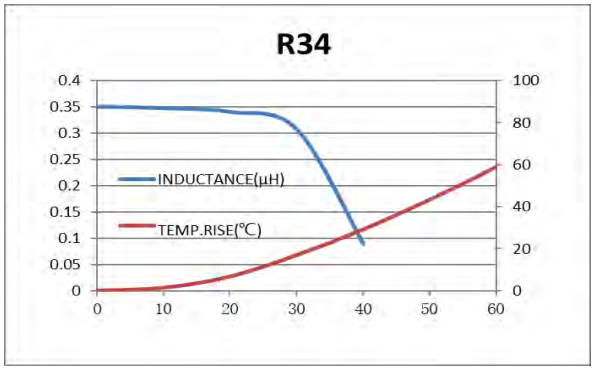


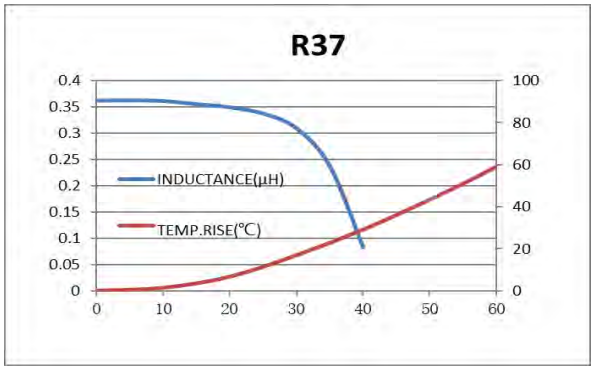




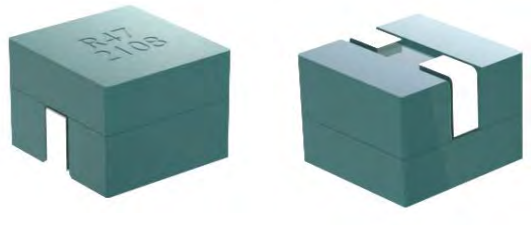








Low Profile, High Current Power Inductors



Features

- SMD inductors
- High current and lower DCR
- Ferrite core material
- Operating temperature range: –40 to +125°C (including self-temperature rise)
- Shielded construction

Environmental Data

- Storage Conditions (In Original Packaging): <40°C ; <75%RH
- Operating temperature range: -40°C to +125°C (Ambient plus self temperature rise)
- Solder reflow temperature: J-STD-020D compliant

Applications

- Servers
- Multi-phase and Vcore regulators
- Voltage Regulator Modules (VRMs)
  - Server and desktop
  - Central processing unit (CPU)
  - Graphics processing unit (GPU)
  - Specific integrated circuit (ASIC)
  - High power density
- Notebook regulators
- Battery power systems
- Graphics cards

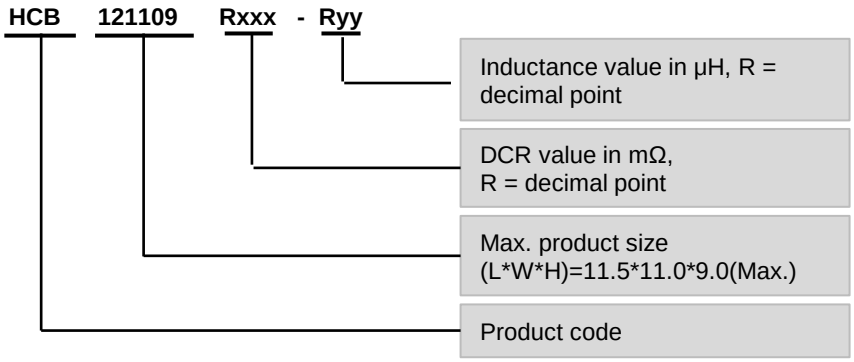
Product Specifications

Part Number[5]	OCL[1] (nH) ±15%	Irms[2] (Amps)	Isat[3] (Amps)	Height (max.)	DCR(mΩ) typical @ +20 °C
HCB121109R30-R15	150	55	105	9.0	0.30
HCB121109R30-R18	180	55	90	9.0	0.30
HCB121109R30-R22	220	55	78	9.0	0.30
HCB121109R30-R25	250	55	68	9.0	0.30
HCB121109R30-R29	290	55	55	9.0	0.30
HCB121109R30-R33	330	55	54	9.0	0.30
HCB121109R30-R38	380	55	45	9.0	0.30
HCB121109R30-R47	470	55	38	9.0	0.30
HCB121109R30-R50	500	55	32	9.0	0.30

Notes:

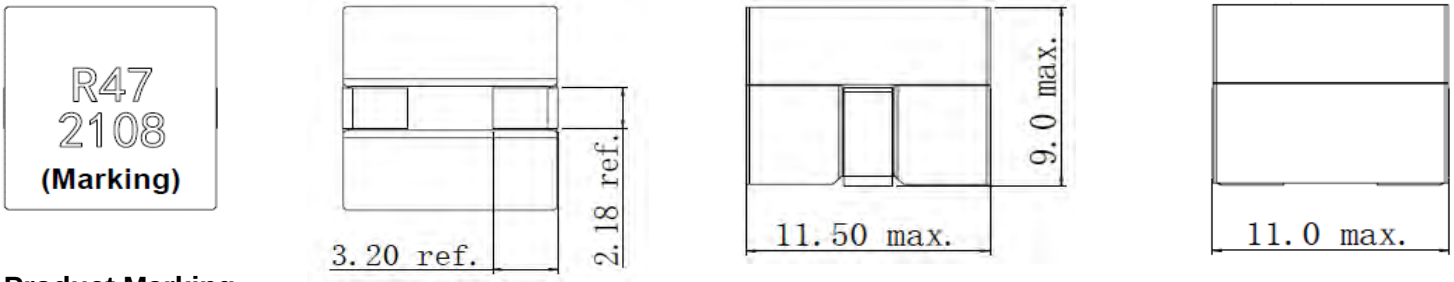
1. Open Circuit Inductance (OCL) Test Parameters: 100 kHz, 1 Vrms,0.0 Adc, +25 °C
2. Irms: DC current for an approximate temperature rise of 40 °C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow, and proximity of other heat generating components 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 : Peak current for approximately 20% rolloff @+25 °C
4. Measurement Equipment: WK3260B+WK3265B

5. Part Number Definition:



Technical Data HCB121109R30 Series

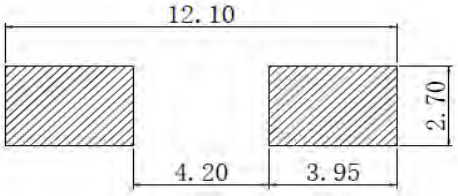
Dimensions:[mm]



Product Marking:

Part Code	Ryy
Date Code	YYWW

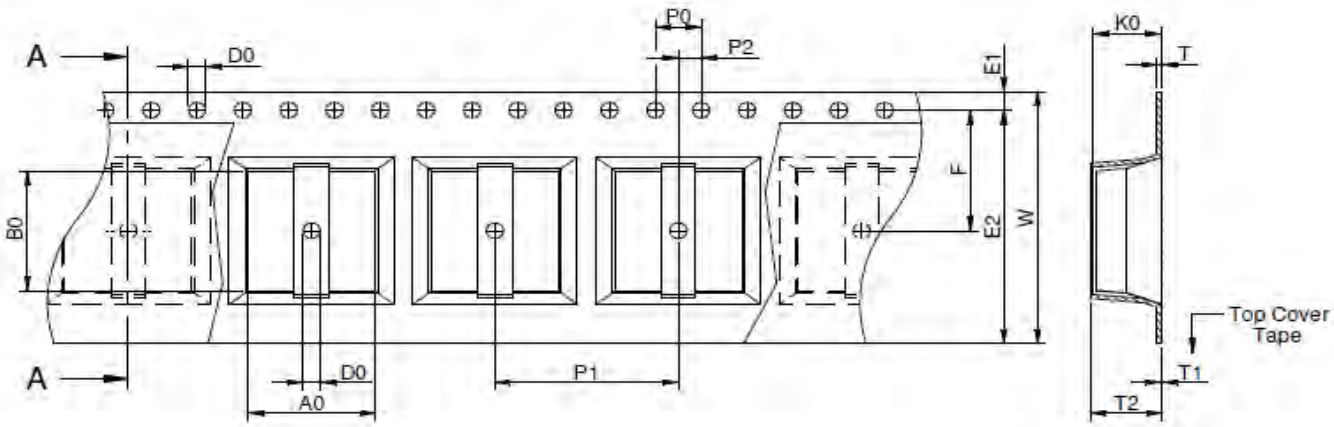
Recommended Pad Layout:[mm]



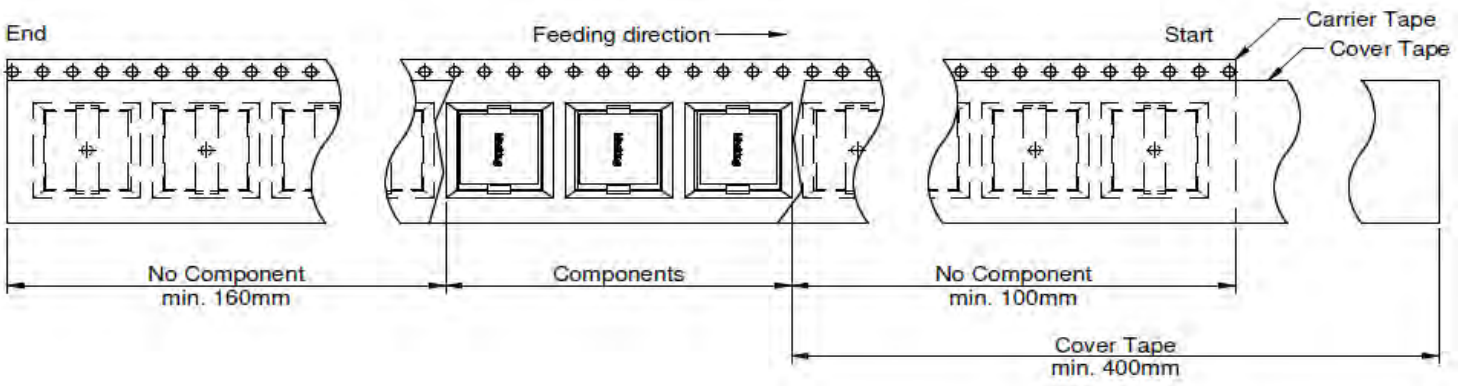
Schematic:

Packaging Information:[mm]

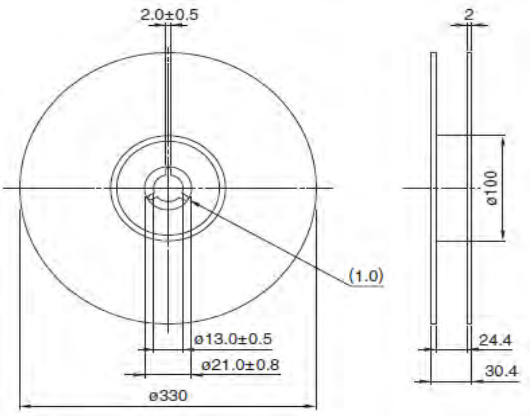
Tape Dimensions



Material	A0(typ.)	B0(typ.)	W (±0.3)	T (ref.)	T1 (max.)	T2 (typ.)	P0 (±0.1)	P1 (±0.1)	P2 (±0.1)	D0 (+0.1/-0.0)	E1 (±0.1)	E2 (min.)	F (±0.1)
Polystyrene	11.60	12.00	24.00	0.40	0.10	9.70	4.00	20.00	2.00	1.50	1.75	22.25	11.50

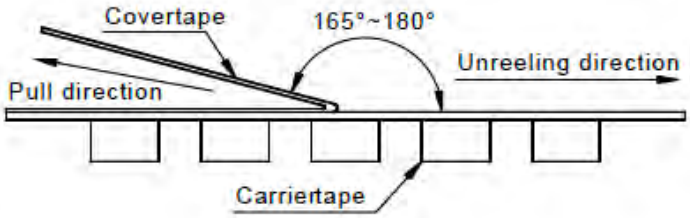


Reel Dimensions



Cover tape peel off condition

Tape Width	Peel-off Force	Peel Speed
12/16/24mm	0.1~1.3N	300±10mm/M



Packing Quantity

Part Number	Quantity (pcs/reel)
HCB121109R30 Type	300

Recommended Reflow Profile:

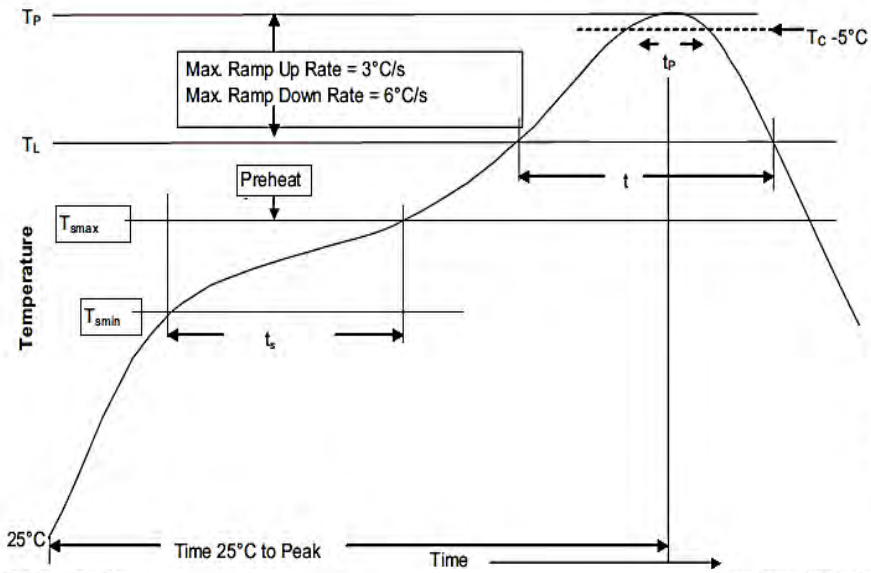


Table 1 - Standard SnPb Solder (T_C)

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

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 (T_P)*		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.

Inductance Characteristics: