



High Current Power Inductor—SHC Series



FEATURES

- ROHS, Halogen free and REACH Compliance.
- Low RDC and ultra large current.
- Molded magnetic shielded, High rate current and ultra low buzz noise.
- High performance (I sat) realized by metal dust core.

APPLICATIONS

PDA,notebook,desktop,and server application power supplies, Base stations and DC/DC converter.

PRODUCT IDENTIFICATION



| 01 Type | |
|---------|-----------------------------|
| SHC | High Current Power Inductor |

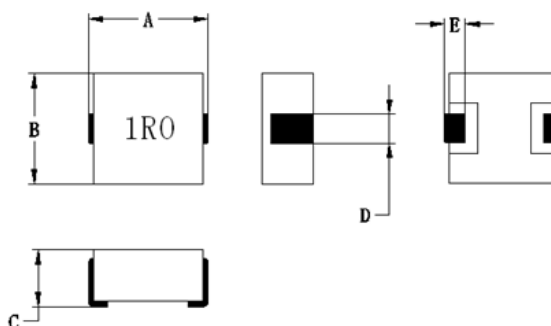
| 02 External Dimensions (LxH)(mm) | |
|----------------------------------|-----------|
| 0415 | 4.9x 1.5 |
| 0418 | 4.9x 1.8 |
| 0402 | 4.9x 2.0 |
| 0502 | 5.9x 2.0 |
| 0503 | 5.9x 3.0 |
| 0618 | 7.6x 1.8 |
| 0624 | 7.6x 2.4 |
| 0603 | 7.6x 3.0 |
| 0605 | 7.6x 5.0 |
| 1004 | 11.5x 4.0 |
| 1204 | 14.5x 4.0 |
| 1205 | 14.5x 5.0 |
| 1265 | 14.5x 6.5 |
| 1770 | 18.5x 7.0 |

| 04 Nominal Inductance | |
|-----------------------|---------------|
| Example | Nominal value |
| 2R2 | 2.2uH |
| 220 | 22uH |
| 221 | 220uH |

| 05 Tolerance | |
|--------------|------|
| K | ±10% |
| M | ±20% |
| N | ±30% |

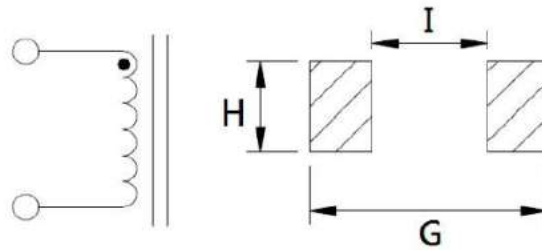
| 05 Packing | |
|------------|-------------|
| T | Tape & Reel |

SHAPE AND DIMENSIONS



| Part Number | Dimensions(mm) | | | | |
|-------------|----------------|--------|--------|----------|--------|
| | A(Max) | B(Max) | C(Max) | D | E(REF) |
| SHC0415 | 4.9 | 4.5 | 1.5 | 1.5±0.3 | 1.0 |
| SHC0418 | 4.9 | 4.5 | 1.8 | 1.5±0.3 | 1.0 |
| SHC0402 | 4.9 | 4.5 | 2.0 | 1.5±0.3 | 1.0 |
| SHC0502 | 5.9 | 5.2 | 1.5 | 2.0±0.3 | 1.0 |
| SHC0503 | 5.9 | 5.2 | 3.0 | 2.0±0.3 | 1.0 |
| SHC0618 | 7.6 | 7.0 | 1.5 | 3.0±0.3 | 1.8 |
| SHC0624 | 7.6 | 7.0 | 2.4 | 3.0±0.3 | 1.8 |
| SHC0603 | 7.6 | 7.0 | 3.0 | 3.0±0.3 | 1.8 |
| SHC0603 | 7.6 | 7.0 | 5.0 | 3.0±0.3 | 1.8 |
| SHC1004 | 11.5 | 10.8 | 4.0 | 3.0±0.3 | 2.0 |
| SHC1204 | 14.5 | 13.5 | 4.0 | 3.5±0.5 | 2.5 |
| SHC1205 | 14.5 | 13.5 | 5.0 | 3.5±0.5 | 2.5 |
| SHC1265 | 14.5 | 13.5 | 6.5 | 3.5±0.5 | 2.5 |
| SHC1770 | 18.5 | 17.5 | 7.0 | 11.7±0.5 | 3.3 |

RECOMMENDED PC BOARD PATTERN



| Part Number | Dimensions(mm) | | |
|-------------|----------------|------|------|
| | H | I | G |
| SHC0415 | 2.5 | 1.5 | 4.8 |
| SHC0418 | 2.5 | 1.5 | 4.8 |
| SHC0402 | 2.5 | 1.5 | 4.8 |
| SHC0502 | 2.5 | 2.0 | 5.8 |
| SHC0503 | 2.5 | 2.0 | 5.8 |
| SHC0618 | 3.5 | 2.0 | 5.8 |
| SHC0624 | 3.5 | 3.0 | 8.5 |
| SHC0603 | 3.5 | 3.0 | 8.5 |
| SHC0605 | 3.5 | 3.0 | 8.5 |
| SHC1004 | 4.0 | 6.0 | 12.5 |
| SHC1204 | 5.0 | 8.0 | 15.0 |
| SHC1205 | 5.0 | 8.0 | 15.0 |
| SHC1265 | 5.0 | 8.0 | 15.0 |
| SHC1770 | 13.0 | 11.2 | 20.5 |



SPECIFICATIONS

● SHC0415 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|---------------------|-----------------|-----------------|
| SHC0415-R22 | 0.22 | M、N | 100/1V | 0.009 | 6 | 9 |
| SHC0415-R47 | 0.47 | | 100/1V | 0.020 | 5 | 7 |
| SHC0415-1R0 | 1.0 | | 100/1V | 0.045 | 3.5 | 5 |
| SHC0415-1R5 | 1.5 | | 100/1V | 0.063 | 3 | 4 |
| SHC0415-2R2 | 2.2 | | 100/1V | 0. 100 | 2.5 | 3 |
| SHC0415-4R7 | 4.7 | | 100/1V | 0. 140 | 2 | 2.5 |

Note: When ordering, please specify tolerance code. Tolerance: K: $\pm 10\%$, M: $\pm 20\%$, N: $\pm 30\%$;

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current

● SHC0418 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|---------------------|-----------------|-----------------|
| SHC0418-1R0 | 1.0 | M、N | 100/1V | 0.009 | 6 | 9 |
| SHC0418-1R5 | 1.5 | | 100/1V | 0.020 | 5 | 7 |
| SHC0418-2R2 | 2.2 | | 100/1V | 0.045 | 3.5 | 5 |
| SHC0418-4R7 | 4.7 | | 100/1V | 0.063 | 3 | 4 |

Note: When ordering, please specify tolerance code. Tolerance: K: $\pm 10\%$, M: $\pm 20\%$, N: $\pm 30\%$;

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current

● SHC0402 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|---------------------|-----------------|-----------------|
| SHC0402-R22 | 0.22 | M、N | 100/1V | 0.008 | 9 | 12 |
| SHC0402-R33 | 0.33 | | 100/1V | 0.010 | 8 | 11 |
| SHC0402-R36 | 0.36 | | 100/1V | 0.012 | 7 | 10 |
| SHC0402-R47 | 0.47 | | 100/1V | 0.014 | 6 | 9.5 |
| SHC0402-R56 | 0.56 | | 100/1V | 0.018 | 5.2 | 8 |
| SHC0402-R68 | 0.68 | | 100/1V | 0.021 | 4.8 | 8 |



| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|------------|-----------------|-----------------|
| SHC0402-1R0 | 1.0 | M、N | 100/1V | 0.027 | 4.5 | 7 |
| SHC0402-1R5 | 1.5 | | 100/1V | 0.045 | 4 | 6 |
| SHC0402-2R2 | 2.2 | | 100/1V | 0.053 | 3 | 5 |
| SHC0402-2R7 | 2.7 | | 100/1V | 0.068 | 2.8 | 4 |
| SHC0402-3R3 | 3.3 | | 100/1V | 0.090 | 2.5 | 3 |
| SHC0402-4R7 | 4.7 | | 100/1V | 0.120 | 2.0 | 3 |
| SHC0402-5R6 | 5.6 | | 100/1V | 0.150 | 2.0 | 2.8 |
| SHC0402-6R8 | 6.8 | | 100/1V | 0.170 | 1.5 | 2.5 |
| SHC0402-100 | 10 | | 100/1V | 0.200 | 1.3 | 1.8 |

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%, M: ±20%, N: ±30%;

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current

● SHC0502 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|------------|-----------------|-----------------|
| SHC0502-R22 | 0.22 | M、N | 100/1V | 0.006 | 10.5 | 16 |
| SHC0502-R33 | 0.33 | | 100/1V | 0.009 | 10 | 15 |
| SHC0502-R47 | 0.47 | | 100/1V | 0.010 | 9 | 12 |
| SHC0502-R68 | 0.68 | | 100/1V | 0.016 | 8 | 11 |
| SHC0502-1R0 | 1.0 | | 100/1V | 0.017 | 7 | 8 |
| SHC0502-1R5 | 1.5 | | 100/1V | 0.028 | 5 | 7 |
| SHC0502-2R2 | 2.2 | | 100/1V | 0.045 | 4 | 6 |
| SHC0502-3R3 | 3.3 | | 100/1V | 0.080 | 3.5 | 5 |
| SHC0502-4R7 | 4.7 | | 100/1V | 0.085 | 3 | 3.5 |
| SHC0502-6R8 | 6.8 | | 100/1V | 0.100 | 2 | 3 |
| SHC0502-100 | 10 | | 100/1V | 0.190 | 1.5 | 2.5 |

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%, M: ±20%, N: ±30%;

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current



● SHC0503 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|------------|-----------------|-----------------|
| SHC0503-R47 | 0.47 | M、N | 100/1V | 0.011 | 10 | 13 |
| SHC0503-R68 | 0.68 | | 100/1V | 0.012 | 9 | 12 |
| SHC0503-1R0 | 1.0 | | 100/1V | 0.016 | 7 | 11 |
| SHC0503-1R5 | 1.5 | | 100/1V | 0.022 | 5 | 10 |
| SHC0503-2R2 | 2.2 | | 100/1V | 0.035 | 4 | 9 |
| SHC0503-3R3 | 3.3 | | 100/1V | 0.038 | 3.5 | 7 |
| SHC0503-4R7 | 4.7 | | 100/1V | 0.060 | 3 | 5 |
| SHC0503-6R8 | 6.8 | | 100/1V | 0.090 | 2.5 | 3.5 |
| SHC0503-100 | 10 | | 100/1V | 0.100 | 2 | 3 |
| SHC0503-150 | 15 | | 100/1V | 0.165 | 1.5 | 2 |
| SHC0503-220 | 22 | | 100/1V | 0.230 | 1.0 | 1.5 |

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%、N: ±30%;

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current

● SHC0618 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|------------|-----------------|-----------------|
| SHC0618-R47 | 0.47 | M、N | 100/1V | 0.0084 | 11 | 18 |
| SHC0618-R68 | 0.68 | | 100/1V | 0.012 | 10.5 | 16 |
| SHC0618-1R0 | 1.0 | | 100/1V | 0.022 | 7.0 | 11 |
| SHC0618-1R5 | 1.5 | | 100/1V | 0.030 | 6.5 | 9.8 |
| SHC0618-2R2 | 2.2 | | 100/1V | 0.035 | 6 | 9 |
| SHC0618-3R3 | 3.3 | | 100/1V | 0.068 | 3.5 | 8 |
| SHC0618-4R7 | 4.7 | | 100/1V | 0.075 | 3 | 5 |
| SHC0618-100 | 10 | | 100/1V | 0.137 | 2 | 3 |

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%、N: ±30%;

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current



● SHC0624 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|------------|-----------------|-----------------|
| SHC0624-R47 | 0.47 | M、N | 100/1V | 0.0068 | 13.0 | 21.0 |
| SHC0624-R68 | 0.68 | | 100/1V | 0.080 | 9.0 | 20.0 |
| SHC0624-1R0 | 1.0 | | 100/1V | 0.011 | 7.0 | 13.0 |
| SHC0624-1R5 | 1.5 | | 100/1V | 0.020 | 6.5 | 12.0 |
| SHC0624-2R2 | 2.2 | | 100/1V | 0.026 | 6.0 | 11.0 |
| SHC0624-3R3 | 3.3 | | 100/1V | 0.028 | 5.8 | 8.7 |
| SHC0624-4R7 | 4.7 | | 100/1V | 0.075 | 3.5 | 7.5 |
| SHC0624-6R8 | 10.0 | | 100/1V | 0.125 | 3.0 | 4.5 |

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%、N: ±30%;

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current

● SHC0603 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|------------|-----------------|-----------------|
| SHC0603-R10 | 0.10 | M、N | 100/1V | 0.0011 | 30.0 | 60.0 |
| SHC0603-R15 | 0.15 | | 100/1V | 0.00185 | 26.0 | 45.0 |
| SHC0603-R22 | 0.22 | | 100/1V | 0.0035 | 22.0 | 40.0 |
| SHC0603-R33 | 0.33 | | 100/1V | 0.0039 | 20.0 | 30.0 |
| SHC0603-R47 | 0.47 | | 100/1V | 0.0045 | 17.5 | 25 |
| SHC0603-R56 | 0.56 | | 100/1V | 0.0055 | 15.5 | 24 |
| SHC0603-R68 | 0.68 | | 100/1V | 0.006 | 14 | 23 |
| SHC0603-R82 | 0.82 | | 100/1V | 0.008 | 13 | 20 |
| SHC0603-1R0 | 1.0 | | 100/1V | 0.009 | 11 | 16 |
| SHC0603-1R5 | 1.5 | | 100/1V | 0.015 | 9.0 | 14 |
| SHC0603-1R8 | 1.8 | | 100/1V | 0.018 | 8.5 | 13.0 |
| SHC0603-2R2 | 2.2 | | 100/1V | 0.020 | 8 | 12 |
| SHC0603-3R3 | 3.3 | | 100/1V | 0.030 | 6 | 10 |
| SHC0603-4R7 | 4.7 | | 100/1V | 0.040 | 5.5 | 9 |
| SHC0603-5R6 | 5.6 | | 100/1V | 0.060 | 5 | 7 |



| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|------------|-----------------|-----------------|
| SHC0603-6R8 | 6.8 | M、N | 100/1V | 0.063 | 4.5 | 6.5 |
| SHC0603-8R2 | 8.2 | | 100/1V | 0.080 | 4 | 6 |
| SHC0603-100 | 10.0 | | 100/1V | 0.105 | 3 | 5.5 |
| SHC0603-150 | 15.0 | | 100/1V | 0.140 | 2.8 | 4 |
| SHC0603-220 | 22.0 | | 100/1V | 0.167 | 1.5 | 3.5 |

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%、N: ±30%;

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current

● SHC0605 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|------------|-----------------|-----------------|
| SHC0605-1R0 | 1.0 | M、N | 100/1V | 0.0075 | 12.0 | 13.0 |
| SHC0605-1R5 | 1.5 | | 100/1V | 0.011 | 11.0 | 12.5 |
| SHC0605-2R2 | 2.2 | | 100/1V | 0.015 | 8.0 | 11.0 |
| SHC0605-3R3 | 3.3 | | 100/1V | 0.020 | 7.0 | 9.0 |
| SHC0605-4R7 | 4.7 | | 100/1V | 0.035 | 6.0 | 9.0 |
| SHC0605-5R6 | 5.6 | | 100/1V | 0.045 | 5.5 | 8.5 |
| SHC0605-6R8 | 6.8 | | 100/1V | 0.043 | 5.0 | 8.0 |
| SHC0605-8R2 | 8.2 | | 100/1V | 0.045 | 5.0 | 6.0 |
| SHC0605-100 | 10.0 | | 100/1V | 0.060 | 4.5 | 5.5 |
| SHC0605-150 | 15.0 | | 100/1V | 0.085 | 3.5 | 5.0 |
| SHC0605-220 | 22.0 | | 100/1V | 0.13 | 2.5 | 3.0 |
| SHC0605-330 | 33.0 | | 100/1V | 0.16 | 2.0 | 2.5 |
| SHC0605-470 | 47.0 | | 100/1V | 0.23 | 1.8 | 2.3 |
| SHC0605-680 | 68.0 | | 100/1V | 0.40 | 1.5 | 2.0 |

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%、N: ±30%;

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current



● SHC1004 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|------------|-----------------|-----------------|
| SHC1004-R22 | 0.22 | M、N | 100/1V | 0.0011 | 30 | 60 |
| SHC1004-R33 | 0.33 | | 100/1V | 0.0014 | 29 | 50 |
| SHC1004-R36 | 0.36 | | 100/1V | 0.0016 | 28 | 45 |
| SHC1004-R47 | 0.47 | | 100/1V | 0.0018 | 26 | 38 |
| SHC1004-R56 | 0.56 | | 100/1V | 0.0025 | 23 | 33 |
| SHC1004-R68 | 0.68 | | 100/1V | 0.003 | 22 | 32 |
| SHC1004-R90 | 0.9 | | 100/1V | 0.004 | 21 | 30 |
| SHC1004-1R0 | 1.0 | | 100/1V | 0.0041 | 18 | 28 |
| SHC1004-1R5 | 1.5 | | 100/1V | 0.0058 | 16 | 27 |
| SHC1004-2R2 | 2.2 | | 100/1V | 0.009 | 12 | 25 |
| SHC1004-3R3 | 3.3 | | 100/1V | 0.0135 | 10 | 16 |
| SHC1004-3R9 | 3.9 | | 100/1V | 0.016 | 9 | 15 |
| SHC1004-4R7 | 4.7 | | 100/1V | 0.0165 | 8 | 14 |
| SHC1004-5R6 | 5.6 | | 100/1V | 0.025 | 7.5 | 13 |
| SHC1004-6R8 | 6.8 | | 100/1V | 0.028 | 7 | 12 |
| SHC1004-8R2 | 8.2 | | 100/1V | 0.030 | 6 | 9 |
| SHC1004-100 | 10.0 | | 100/1V | 0.0365 | 5.5 | 8.5 |
| SHC1004-120 | 12 | | 100/1V | 0.048 | 5 | 8 |
| SHC1004-150 | 15.0 | | 100/1V | 0.055 | 4 | 7 |
| SHC1004-220 | 22.0 | | 100/1V | 0.060 | 3.5 | 6 |
| SHC1004-330 | 33.0 | | 100/1V | 0.145 | 3 | 4.5 |
| SHC1004-470 | 47.0 | | 100/1V | 0.160 | 2.8 | 3 |
| SHC1004-680 | 68.0 | | 100/1V | 0.260 | 2 | 2.5 |
| SHC1004-101 | 100 | | 100/1V | 0.380 | 1 | 2 |

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%, M: ±20%, N: ±30%;

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current



● SHC1005 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|---------------------|-----------------|-----------------|
| SHC1005-R82 | 0.82 | M、N | 100/1V | 0.0025 | 16 | 32 |
| SHC1005-1R0 | 1.0 | | 100/1V | 0.004 | 15 | 30 |
| SHC1005-1R8 | 1.8 | | 100/1V | 0.006 | 15 | 27.5 |
| SHC1005-2R2 | 2.2 | | 100/1V | 0.008 | 14 | 27 |
| SHC1005-3R3 | 3.3 | | 100/1V | 0.011 | 10 | 19 |
| SHC1005-4R7 | 4.7 | | 100/1V | 0.017 | 9 | 14 |
| SHC1005-6R8 | 6.8 | | 100/1V | 0.022 | 8 | 10 |
| SHC1005-100 | 10 | | 100/1V | 0.038 | 6.8 | 9 |
| SHC1005-150 | 15 | | 100/1V | 0.045 | 6 | 8 |
| SHC1005-220 | 22 | | 100/1V | 0.060 | 5 | 7 |
| SHC1005-330 | 33 | | 100/1V | 0.145 | 3.5 | 6 |

Note: When ordering, please specify tolerance code. Tolerance: K: $\pm 10\%$, M: $\pm 20\%$, N: $\pm 30\%$;

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current

● SHC1204 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|---------------------|-----------------|-----------------|
| SHC1204-R47 | 0.47 | M、N | 100/1V | 0.002 | 23 | 55 |
| SHC1204-R60 | 0.6 | | 100/1V | 0.003 | 22 | 40 |
| SHC1204-1R0 | 1.0 | | 100/1V | 0.0035 | 19 | 38 |
| SHC1204-1R5 | 1.5 | | 100/1V | 0.0045 | 16 | 30 |
| SHC1204-1R8 | 1.8 | | 100/1V | 0.0083 | 15.5 | 26 |
| SHC1204-2R2 | 2.2 | | 100/1V | 0.0095 | 15 | 22 |
| SHC1204-3R3 | 3.3 | | 100/1V | 0.010 | 14 | 20 |
| SHC1204-4R7 | 4.7 | | 100/1V | 0.014 | 9 | 15 |
| SHC1204-5R6 | 5.6 | | 100/1V | 0.017 | 8 | 14 |
| SHC1204-6R8 | 6.8 | | 100/1V | 0.024 | 7 | 12 |
| SHC1204-8R2 | 8.2 | | 100/1V | 0.028 | 6.5 | 11 |
| SHC1204-100 | 10 | | 100/1V | 0.035 | 6 | 10 |
| SHC1204-150 | 15 | | 100/1V | 0.060 | 5 | 9 |
| SHC1204-220 | 22 | | 100/1V | 0.080 | 4 | 7 |



● SHC1205 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|------------|-----------------|-----------------|
| SHC1205-R33 | 0.33 | M、N | 100/1V | 0.0010 | 32 | 60 |
| SHC1205-R36 | 0.36 | | 100/1V | 0.0012 | 28 | 50 |
| SHC1205-R47 | 0.47 | | 100/1V | 0.0013 | 25 | 48 |
| SHC1205-R56 | 0.56 | | 100/1V | 0.0015 | 23 | 46 |
| SHC1205-R68 | 0.68 | | 100/1V | 0.002 | 20 | 40 |
| SHC1205-R82 | 0.82 | | 100/1V | 0.0025 | 19 | 39 |
| SHC1205-1R0 | 1.0 | | 100/1V | 0.0035 | 18 | 35 |
| SHC1205-1R5 | 1.5 | | 100/1V | 0.0041 | 17.5 | 33 |
| SHC1205-1R8 | 1.8 | | 100/1V | 0.0043 | 17 | 30 |
| SHC1205-2R2 | 2.2 | | 100/1V | 0.0045 | 16 | 25 |
| SHC1205-3R3 | 3.3 | | 100/1V | 0.013 | 15 | 23 |
| SHC1205-4R7 | 4.7 | | 100/1V | 0.015 | 12 | 21 |
| SHC1205-5R6 | 5.6 | | 100/1V | 0.017 | 11.5 | 20 |
| SHC1205-6R8 | 6.8 | | 100/1V | 0.019 | 11 | 18 |
| SHC1205-8R2 | 8.2 | | 100/1V | 0.0225 | 10 | 17 |
| SHC1205-100 | 10.0 | | 100/1V | 0.030 | 6 | 13 |
| SHC1205-150 | 15.0 | | 100/1V | 0.060 | 5 | 12 |
| SHC1205-220 | 22.0 | | 100/1V | 0.075 | 4 | 8 |
| SHC1205-330 | 33.0 | | 100/1V | 0.082 | 3 | 6 |
| SHC1205-470 | 47.0 | | 100/1V | 0.090 | 2.5 | 3.5 |
| SHC1205-560 | 56.0 | 100/1V | 0.180 | 2 | 3.2 | |
| SHC1205-680 | 68.0 | 100/1V | 0.210 | 1.5 | 3.0 | |

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%、M: ±20%、N: ±30%;

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current



● SHC1265 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|------------|-----------------|-----------------|
| SHC1265-R22 | 0.22 | M、N | 100/1V | 0.00081 | 60 | 60 |
| SHC1265-R56 | 0.56 | | 100/1V | 0.0017 | 30 | 58 |
| SHC1265-R68 | 0.68 | | 100/1V | 0.0018 | 28 | 54 |
| SHC1265-R82 | 0.82 | | 100/1V | 0.002 | 25 | 50 |
| SHC1265-1R0 | 1.00 | | 100/1V | 0.0025 | 24 | 49 |
| SHC1265-1R5 | 1.5 | | 100/1V | 0.0035 | 22 | 45 |
| SHC1265-2R2 | 2.2 | | 100/1V | 0.0045 | 18 | 40 |
| SHC1265-3R3 | 3.3 | | 100/1V | 0.0082 | 16 | 28 |
| SHC1265-4R7 | 4.7 | | 100/1V | 0.014 | 14 | 22.5 |
| SHC1265-5R6 | 5.6 | | 100/1V | 0.015 | 12 | 20 |
| SHC1265-6R8 | 6.8 | | 100/1V | 0.019 | 11.5 | 18 |
| SHC1265-8R2 | 8.2 | | 100/1V | 0.025 | 10 | 16 |
| SHC1265-100 | 10.0 | | 100/1V | 0.028 | 9 | 15.5 |
| SHC1265-150 | 15.0 | | 100/1V | 0.038 | 6 | 9 |
| SHC1265-220 | 22.0 | | 100/1V | 0.048 | 5 | 7.5 |
| SHC1265-330 | 33.0 | | 100/1V | 0.066 | 4 | 6.5 |
| SHC1265-470 | 47.0 | | 100/1V | 0.090 | 3.5 | 5 |
| SHC1265-560 | 56.0 | | 100/1V | 0.110 | 3 | 4 |
| SHC1265-680 | 68.0 | | 100/1V | 0.123 | 2.5 | 3 |

Note: When ordering, please specify tolerance code. Tolerance: K: ±10%, M: ±20%, N: ±30%;

1. Operating temperature range -40 -125°C

2. Isat for Inductance drop 30% from its value without current

● SHC1770 TYPE

| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|------------|-----------------|-----------------|
| SHC1770-R22 | 0.22 | M、N | 100/1V | 0.0007 | 60 | 100 |
| SHC1770-R33 | 0.33 | | 100/1V | 0.0008 | 55 | 90 |
| SHC1770-R47 | 0.47 | | 100/1V | 0.001 | 50 | 80 |
| SHC1770-R56 | 0.56 | | 100/1V | 0.00115 | 46 | 70 |
| SHC1770-R82 | 0.82 | | 100/1V | 0.0013 | 42 | 60 |



| Part Number | Inductance (uH) | Tolerance | Test condition (KHz/V) | DCR Max(Ω) | Irms Current(A) | Isat Current(A) |
|-------------|-----------------|-----------|------------------------|---------------------|-----------------|-----------------|
| SHC1770-1R0 | 1.0 | M、N | 100/1V | 0.0017 | 38 | 50 |
| SHC1770-1R5 | 1.5 | | 100/1V | 0.00215 | 35 | 45 |
| SHC1770-2R2 | 2.2 | | 100/1V | 0.0026 | 25 | 34 |
| SHC1770-3R3 | 3.3 | | 100/1V | 0.0035 | 17 | 24 |
| SHC1770-4R7 | 4.7 | | 100/1V | 0.005 | 15 | 21 |
| SHC1770-6R8 | 6.8 | | 100/1V | 0.007 | 14 | 18 |
| SHC1770-8R2 | 8.2 | | 100/1V | 0.009 | 12 | 18 |
| SHC1770-100 | 10 | | 100/1V | 0.01 | 11 | 17 |
| SHC1770-150 | 15 | | 100/1V | 0.015 | 9 | 12 |
| SHC1770-220 | 22 | | 100/1V | 0.025 | 7 | 9.5 |
| SHC1770-330 | 33 | | 100/1V | 0.035 | 6.5 | 9 |
| SHC1770-470 | 47 | | 100/1V | 0.040 | 5.5 | 7.5 |
| SHC1770-680 | 68 | | 100/1V | 0.080 | 4.5 | 5 |
| SHC1770-820 | 82 | | 100/1V | 0.105 | 4 | 4.5 |
| SHC1770-101 | 100 | | 100/1V | 0.120 | 3 | 4 |

Note: When ordering, please specify tolerance code. Tolerance: K: $\pm 10\%$, M: $\pm 20\%$, N: $\pm 30\%$;

1. Operating temperature range -40 -125°C

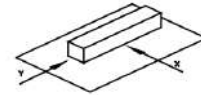
2. Isat for Inductance drop 30% from its value without current



DETAIL ELECTRICAL CHARACTERISTICS

1. Operating temperature range: -40 to + 105°C(Includes temperature when the coil is heated) .
2. External appearance: On visual inspection, the coil has no external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Y

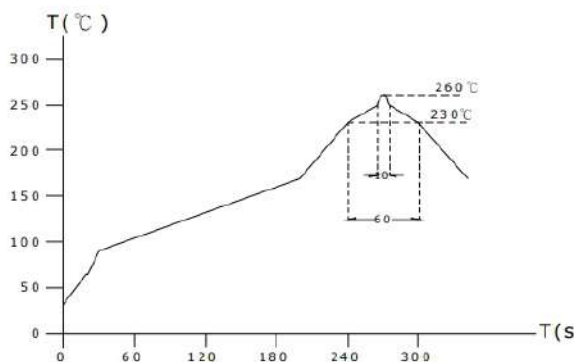
withstanding at below conditions.



Terminal should not peel off. (refer to figure at right) 5. 0N 60 sec.

4. Insulating resistance: Over 100MΩ at 100V D.C. between coil and core.
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core.
6. Temperature characteristics: Inductance coefficient $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$ (-25~+80°C degree Celsius), inductance deviation within $\pm 5.0\%$, after 96 hours.
7. Humidity characteristics(Moisture Resistance): Inductance deviation within $\pm 5\%$, after 96 hours in 90~95% relative humidity at $40 \pm 2^{\circ}\text{C}$ and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within $\pm 5\%$, after vibration for 1 hour. In each of three orientations at sweep vibration (10~55~10 Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within $\pm 5\%$, after being dropped once with 981m/s² (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat: 260°C, 10 seconds(See attached recommend reflow) .
11. Storage condition: Temperature Range: 0°C ~ 35°C; -40°C ~ 105°C (after PCB), Humidity Range: 50% ~ 70% RH.
12. Use components within 12 months. If 12 months or more have elapsed, check solderability before use.
13. Reflow profile recommend:

Lead-free heat endurance test



Lead-free the recommended reflow condition

