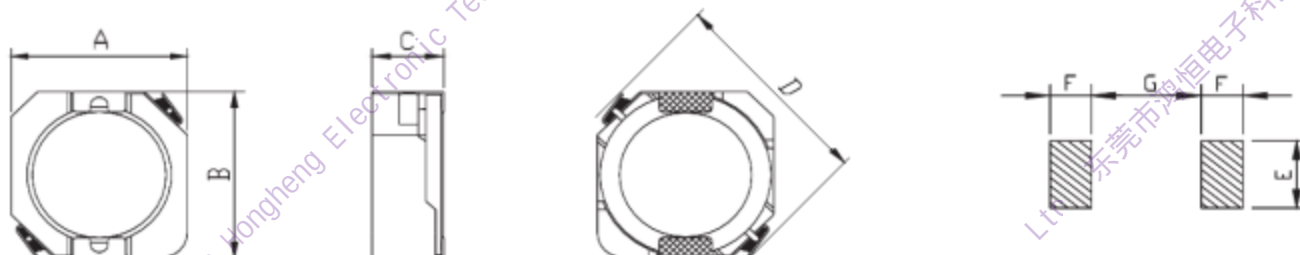


**Features:**

- A wide range of product line up is available to meet the various requirements.
- For DC/DC converter applications.
- Ideally used in thin-screen TV, LCDs, AV equipment and other electronic devices.
- Custom design is also available.
- RoHS compliant.

**Appearance dimensions (mm, dimensions without tolerance are typical):**

Recommended Land Patterns



| Type      | A        | B        | C       | D         | E   | F   | G   | MPQ(pcs) |
|-----------|----------|----------|---------|-----------|-----|-----|-----|----------|
| CKRH103R  | 10.0±0.3 | 10.2±0.3 | 2.8±0.3 | 13.5 Max. | 3.2 | 1.6 | 7.3 | 1000     |
| CKRH104R  | 10.0±0.3 | 10.2±0.3 | 3.8±0.2 | 13.5 Max. | 3.2 | 1.6 | 7.3 | 1000     |
| CKRH1045R | 10.0±0.5 | 10.3±0.5 | 4.5±0.2 | 13.5 Max. | 3.4 | 1.8 | 7.5 | 1000     |
| CKRH105R  | 10.0±0.3 | 10.2±0.3 | 4.8±0.2 | 13.5 Max. | 3.2 | 1.6 | 7.3 | 1000     |

**CDRH103R Electrical Characteristics**

| Part No.      | Inductance (uH) | Tolerance (%) | DCR (mΩ)Max. | Isat (A)Max. | Isat (A)Typ. | Irms (A)Max. | Irms (A)Typ. |
|---------------|-----------------|---------------|--------------|--------------|--------------|--------------|--------------|
| CDRH103R-0R8N | 0.80            | 30%           | 11.30        | 11.200       | 14.000       | 16.100       | 20.100       |
| CDRH103R-1R5N | 1.50            | 30%           | 14.70        | 8.000        | 10.000       | 11.500       | 14.400       |
| CDRH103R-2R2N | 2.20            | 30%           | 16.90        | 6.700        | 8.375        | 9.600        | 12.000       |
| CDRH103R-3R3N | 3.30            | 30%           | 21.00        | 5.600        | 7.000        | 8.100        | 10.100       |
| CDRH103R-4R7N | 4.70            | 30%           | 30.00        | 4.600        | 5.750        | 6.600        | 8.300        |
| CDRH103R-6R8N | 6.80            | 30%           | 35.00        | 3.900        | 4.875        | 5.600        | 7.000        |
| CDRH103R-8R2N | 8.20            | 30%           | 50.00        | 3.600        | 4.500        | 5.200        | 6.500        |
| CDRH103R-100M | 10.0            | 20%           | 59.00        | 3.200        | 4.000        | 4.600        | 5.800        |
| CDRH103R-150M | 15.0            | 20%           | 91.00        | 2.600        | 3.250        | 3.700        | 4.600        |
| CDRH103R-220M | 22.0            | 20%           | 142.0        | 2.200        | 2.750        | 3.200        | 4.000        |
| CDRH103R-330M | 33.0            | 20%           | 202.0        | 1.800        | 2.250        | 2.600        | 3.300        |
| CDRH103R-470M | 47.0            | 20%           | 299.0        | 1.500        | 1.875        | 2.200        | 2.800        |
| CDRH103R-560M | 56.0            | 20%           | 325.0        | 1.400        | 1.750        | 2.000        | 2.500        |
| CDRH103R-680M | 68.0            | 20%           | 429.0        | 1.200        | 1.500        | 1.700        | 2.100        |
| CDRH103R-820M | 82.0            | 20%           | 493.0        | 1.100        | 1.375        | 1.600        | 2.000        |

## CDRH103R Electrical Characteristics

| Part No.      | Inductance (uH) | Tolerance (%) | DCR (mΩ)Max. | Isat (A)Max. | Isat (A)Typ. | Irms (A)Max. | Irms (A)Typ. |
|---------------|-----------------|---------------|--------------|--------------|--------------|--------------|--------------|
| CDRH103R-101M | 100.0           | 20%           | 683.0        | 1.000        | 1.250        | 1.400        | 1.800        |
| CDRH103R-121M | 120.0           | 20%           | 750.0        | 0.900        | 1.125        | 1.300        | 1.600        |
| CDRH103R-151M | 150.0           | 20%           | 870.0        | 0.850        | 1.063        | 1.200        | 1.500        |

## CDRH104R Electrical Characteristics

| Part No.      | Inductance (uH) | Tolerance (%) | DCR (mΩ)Max. | Isat (A)Max. | Isat (A)Typ. | Irms (A)Max. | Irms (A)Typ. |
|---------------|-----------------|---------------|--------------|--------------|--------------|--------------|--------------|
| CDRH104R-1R5N | 1.50            | 30%           | 8.10         | 10.000       | 12.500       | 14.400       | 18.000       |
| CDRH104R-2R5N | 2.50            | 30%           | 10.4         | 7.500        | 9.375        | 10.800       | 13.500       |
| CDRH104R-3R8N | 3.80            | 30%           | 16.0         | 6.000        | 7.500        | 8.600        | 10.800       |
| CDRH104R-5R2N | 5.20            | 30%           | 22.0         | 5.510        | 6.888        | 7.900        | 9.900        |
| CDRH104R-7R0N | 7.00            | 30%           | 30.0         | 4.800        | 6.000        | 6.900        | 8.600        |
| CDRH104R-100M | 10.0            | 20%           | 35.0         | 4.400        | 5.500        | 6.300        | 7.900        |
| CDRH104R-120M | 12.0            | 20%           | 46.0         | 3.700        | 4.625        | 5.300        | 6.600        |
| CDRH104R-150M | 15.0            | 20%           | 55.0         | 3.600        | 4.500        | 5.200        | 6.500        |
| CDRH104R-180M | 18.0            | 20%           | 69.0         | 3.100        | 3.875        | 4.500        | 5.600        |
| CDRH104R-220M | 22.0            | 20%           | 73.0         | 2.900        | 3.625        | 4.200        | 5.300        |
| CDRH104R-270M | 27.0            | 20%           | 93.0         | 2.600        | 3.250        | 3.700        | 4.600        |
| CDRH104R-330M | 33.0            | 20%           | 122.0        | 2.300        | 2.875        | 3.300        | 4.100        |
| CDRH104R-390M | 39.0            | 20%           | 127.0        | 2.200        | 2.750        | 3.200        | 4.000        |
| CDRH104R-470M | 47.0            | 20%           | 155.0        | 2.100        | 2.625        | 3.000        | 3.800        |
| CDRH104R-560M | 56.0            | 20%           | 188.0        | 1.630        | 2.038        | 2.300        | 2.900        |
| CDRH104R-680M | 68.0            | 20%           | 213.0        | 1.500        | 1.875        | 2.200        | 2.800        |
| CDRH104R-820M | 82.0            | 20%           | 283.0        | 1.450        | 1.813        | 2.100        | 2.600        |
| CDRH104R-101M | 100.0           | 20%           | 350.0        | 1.350        | 1.688        | 1.900        | 2.400        |
| CDRH104R-121M | 120.0           | 20%           | 430.0        | 1.200        | 1.500        | 1.700        | 2.100        |
| CDRH104R-151M | 150.0           | 20%           | 504.0        | 1.150        | 1.438        | 1.700        | 2.100        |
| CDRH104R-181M | 180.0           | 20%           | 568.0        | 1.000        | 1.250        | 1.400        | 1.800        |
| CDRH104R-221M | 220.0           | 20%           | 756.0        | 0.930        | 1.163        | 1.300        | 1.600        |
| CDRH104R-271M | 270.0           | 20%           | 853.0        | 0.840        | 1.050        | 1.200        | 1.500        |
| CDRH104R-331M | 330.0           | 20%           | 1090         | 0.700        | 0.875        | 1.000        | 1.300        |

## CDRH1045R Electrical Characteristics

| Part No.       | Inductance (uH) | Tolerance (%) | DCR (mΩ)Max. | Isat (A)Max. | Isat (A)Typ. | Irms (A)Max. | Irms (A)Typ. |
|----------------|-----------------|---------------|--------------|--------------|--------------|--------------|--------------|
| CDRH1045R-1R2N | 1.20            | 30%           | 10.40        | 7.200        | 9.000        | 10.400       | 13.000       |
| CDRH1045R-1R8N | 1.80            | 30%           | 12.20        | 6.600        | 8.250        | 9.500        | 11.900       |
| CDRH1045R-2R7N | 2.70            | 30%           | 14.10        | 6.000        | 7.500        | 8.600        | 10.800       |
| CDRH1045R-3R9N | 3.90            | 30%           | 16.50        | 5.800        | 7.250        | 8.300        | 10.400       |
| CDRH1045R-5R6N | 5.60            | 30%           | 23.20        | 4.800        | 6.000        | 6.900        | 8.600        |
| CDRH1045R-6R8N | 6.80            | 30%           | 25.10        | 4.500        | 5.625        | 6.500        | 8.100        |
| CDRH1045R-8R2N | 8.20            | 30%           | 31.00        | 4.200        | 5.250        | 6.000        | 7.500        |
| CDRH1045R-100M | 10.0            | 20%           | 32.70        | 4.100        | 5.125        | 5.900        | 7.400        |
| CDRH1045R-120M | 12.0            | 20%           | 47.20        | 3.200        | 4.000        | 4.600        | 5.800        |
| CDRH1045R-150M | 15.0            | 20%           | 56.00        | 3.100        | 3.875        | 4.500        | 5.600        |
| CDRH1045R-220M | 22.0            | 20%           | 73.90        | 2.700        | 3.375        | 3.900        | 4.900        |
| CDRH1045R-330M | 33.0            | 20%           | 120.0        | 2.000        | 2.500        | 2.900        | 3.600        |
| CDRH1045R-470M | 47.0            | 20%           | 160.4        | 1.600        | 2.000        | 2.300        | 2.900        |
| CDRH1045R-560M | 56.0            | 20%           | 175.8        | 1.500        | 1.875        | 2.200        | 2.800        |
| CDRH1045R-680M | 68.0            | 20%           | 217.3        | 1.400        | 1.750        | 2.000        | 2.500        |
| CDRH1045R-820M | 82.0            | 20%           | 273.8        | 1.100        | 1.375        | 1.600        | 2.000        |
| CDRH1045R-101M | 100.0           | 20%           | 344.5        | 1.000        | 1.250        | 1.400        | 1.800        |

## CDRH105R Electrical Characteristics

| Part No.      | Inductance (uH) | Tolerance (%) | DCR (mΩ)Max. | Isat (A)Max. | Isat (A)Typ. | Irms (A)Max. | Irms (A)Typ. |
|---------------|-----------------|---------------|--------------|--------------|--------------|--------------|--------------|
| CDRH105R-1R8N | 1.80            | 30%           | 7.60         | 10.500       | 13.125       | 15.100       | 18.900       |
| CDRH105R-2R7N | 2.70            | 30%           | 9.70         | 8.000        | 10.000       | 11.500       | 14.400       |
| CDRH105R-3R3N | 3.30            | 30%           | 13.00        | 7.800        | 9.750        | 11.200       | 14.000       |
| CDRH105R-4R7N | 4.70            | 30%           | 15.70        | 6.000        | 7.500        | 8.600        | 10.800       |
| CDRH105R-6R8N | 6.80            | 30%           | 18.00        | 5.500        | 6.875        | 7.900        | 9.900        |
| CDRH105R-8R2N | 8.20            | 30%           | 25.00        | 4.500        | 5.625        | 6.500        | 8.100        |
| CDRH105R-100M | 10.0            | 20%           | 30.00        | 4.200        | 5.250        | 6.000        | 7.500        |
| CDRH105R-120M | 12.0            | 20%           | 31.00        | 4.000        | 5.000        | 5.800        | 7.300        |
| CDRH105R-150M | 15.0            | 20%           | 41.00        | 3.600        | 4.500        | 5.200        | 6.500        |
| CDRH105R-180M | 18.0            | 20%           | 46.00        | 2.800        | 3.500        | 4.000        | 5.000        |
| CDRH105R-220M | 22.0            | 20%           | 60.00        | 2.700        | 3.375        | 3.900        | 4.900        |
| CDRH105R-270M | 27.0            | 20%           | 69.00        | 2.400        | 3.000        | 3.500        | 4.400        |
| CDRH105R-330M | 33.0            | 20%           | 84.00        | 2.300        | 2.875        | 3.300        | 4.100        |

## CDRH105R Electrical Characteristics

| Part No.      | Inductance (uH) | Tolerance (%) | DCR (mΩ)Max. | Isat (A)Max. | Isat (A)Typ. | Irms (A)Max. | Irms (A)Typ. |
|---------------|-----------------|---------------|--------------|--------------|--------------|--------------|--------------|
| CDRH105R-390M | 39.0            | 20%           | 106.0        | 2.150        | 2.688        | 3.100        | 3.900        |
| CDRH105R-470M | 47.0            | 20%           | 130.0        | 2.400        | 3.000        | 3.500        | 4.400        |
| CDRH105R-560M | 56.0            | 20%           | 149.0        | 1.900        | 2.375        | 2.700        | 3.400        |
| CDRH105R-680M | 68.0            | 20%           | 201.0        | 1.550        | 1.938        | 2.200        | 2.800        |
| CDRH105R-820M | 82.0            | 20%           | 227.0        | 1.500        | 1.875        | 2.200        | 2.800        |
| CDRH105R-101M | 100.0           | 20%           | 252.0        | 1.350        | 1.688        | 1.900        | 2.400        |
| CDRH105R-121M | 120.0           | 20%           | 303.0        | 1.180        | 1.475        | 1.700        | 2.100        |
| CDRH105R-151M | 150.0           | 20%           | 370.0        | 1.050        | 1.313        | 1.500        | 1.900        |
| CDRH105R-181M | 180.0           | 20%           | 419.0        | 0.900        | 1.125        | 1.300        | 1.600        |
| CDRH105R-221M | 220.0           | 20%           | 500.0        | 0.850        | 1.063        | 1.200        | 1.500        |
| CDRH105R-271M | 270.0           | 20%           | 672.0        | 0.720        | 0.900        | 1.000        | 1.300        |
| CDRH105R-331M | 330.0           | 20%           | 810.0        | 0.680        | 0.850        | 1.000        | 1.300        |
| CDRH105R-391M | 390.0           | 20%           | 953.0        | 0.600        | 0.750        | 0.900        | 1.100        |
| CDRH105R-471M | 470.0           | 20%           | 1289         | 0.570        | 0.713        | 0.800        | 1.000        |
| CDRH105R-561M | 560.0           | 20%           | 1430         | 0.530        | 0.663        | 0.800        | 1.000        |
| CDRH105R-681M | 680.0           | 20%           | 1599         | 0.500        | 0.625        | 0.700        | 0.900        |
| CDRH105R-821M | 820.0           | 20%           | 1768         | 0.460        | 0.575        | 0.700        | 0.900        |
| CDRH105R-102M | 1000            | 20%           | 1989         | 0.420        | 0.525        | 0.600        | 0.800        |

### Remarks:

- \* All test data is referenced to 25°C ambient temperature.
- \* Test equipment: VC4092B, TH2516B, HP4284/HP4284A, HP4285 or equivalent.
- \* Inductance: at 100kHz/1.0Vrms.
- \* Isat: DC current at which the inductance drops 30% from its initial value without current.
- \* I rms: DC current that causes the temperature rise ( $\Delta T=40^{\circ}\text{C}$ ) from 25°C.