

### FEATURES

- Ferrite core provides high withstand voltage and wide inductance range.
- Closed magnetic circuit design reduces leakage flux and EMI.
- Assembly Type.
- Operating temperature:  $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$ .



### APPLICATIONS

- Ideally used in VTR, OA equipment, Digital camera, LCD television set, notebook PC, etc as DC-DC Converter.

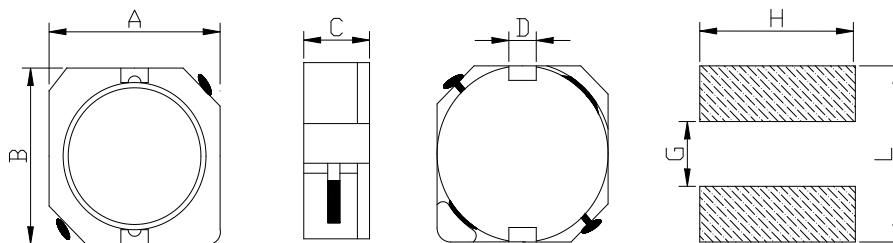
### PRODUCT IDENTIFICATION

CDRH 103R S 100 M T

| (1)  | (2)  | (3) | (4) | (5) | (6) |
|------|------|-----|-----|-----|-----|
| CDRH | 103R | S   | 100 | M   | T   |

- (1) Series name
- (2) Product dimensions
- (3) Feature Type (S:Standard)
- (4) Inductance Value (1R0:1.0uH, 100:10uH, 101:100uH)
- (5) Inductance Tolerance(K:10%, M:20%, N:30%)
- (6) Package(T:Tape&Reel)

### SHAPE AND DIMENSIONS



Unit:mm

| Series   | A      | B      | C Max | D Ref | L Ref | H Rel | G Ref |
|----------|--------|--------|-------|-------|-------|-------|-------|
| CDRH103R | 10±0.3 | 10±0.5 | 3.1   | 3.0   | 10.7  | 3.6   | 7.3   |
| CDRH104R | 10±0.3 | 10±0.5 | 4.0   | 3.0   | 10.7  | 3.6   | 7.3   |
| CDRH105R | 10±0.3 | 10±0.5 | 5.1   | 3.0   | 10.7  | 3.6   | 7.3   |

## SPECIFICATIONS

### CDRH103R Series

| Part Number    | Inductance<br>( $\mu$ H) | Tolerance<br>(%) | Test Condition | DCR Max.<br>(m $\Omega$ ) | Isat(A) |
|----------------|--------------------------|------------------|----------------|---------------------------|---------|
| CDRH103RS1R5NT | 1.5                      | 30               | 100KHz/0.25V   | 11                        | 8.00    |
| CDRH103RS2R2NT | 2.2                      | 30               | 100KHz/0.25V   | 17                        | 6.70    |
| CDRH103RS3R3NT | 3.3                      | 30               | 100KHz/0.25V   | 21                        | 5.56    |
| CDRH103RS4R7NT | 4.7                      | 30               | 100KHz/0.25V   | 30                        | 4.65    |
| CDRH103RS6R8NT | 6.8                      | 30               | 100KHz/0.25V   | 35                        | 3.84    |
| CDRH103RS8R2NT | 8.2                      | 30               | 100KHz/0.25V   | 50                        | 3.54    |
| CDRH103RS100MT | 10                       | 20               | 100KHz/0.25V   | 59                        | 3.18    |
| CDRH103RS150MT | 15                       | 20               | 100KHz/0.25V   | 91                        | 2.60    |
| CDRH103RS220MT | 22                       | 20               | 100KHz/0.25V   | 143                       | 2.16    |
| CDRH103RS330MT | 33                       | 20               | 100KHz/0.25V   | 202                       | 1.74    |
| CDRH103RS470MT | 47                       | 20               | 100KHz/0.25V   | 299                       | 1.43    |
| CDRH103RS560MT | 56                       | 20               | 100KHz/0.25V   | 325                       | 1.36    |
| CDRH103RS680MT | 68                       | 20               | 100KHz/0.25V   | 429                       | 1.22    |
| CDRH103RS820MT | 82                       | 20               | 100KHz/0.25V   | 494                       | 1.14    |
| CDRH103RS101MT | 100                      | 20               | 100KHz/0.25V   | 683                       | 1.02    |
| CDRH103RS121MT | 120                      | 20               | 100KHz/0.25V   | 754                       | 0.89    |
| CDRH103RS151MT | 150                      | 20               | 100KHz/0.25V   | 871                       | 0.84    |

### CDRH104R Series

| Part Number    | Inductance<br>( $\mu$ H) | Tolerance<br>(%) | Test Condition | DCR Max.<br>(m $\Omega$ ) | Isat(A) |
|----------------|--------------------------|------------------|----------------|---------------------------|---------|
| CDRH104RS1R0NT | 1.0                      | 30               | 100KHz/0.25V   | 6.5                       | 10.50   |
| CDRH104RS1R5NT | 1.5                      | 30               | 100KHz/0.25V   | 10.5                      | 9.50    |
| CDRH104RS1R8NT | 1.8                      | 30               | 100KHz/0.25V   | 10.5                      | 9.50    |
| CDRH104RS2R2NT | 2.2                      | 30               | 100KHz/0.25V   | 10.5                      | 7.50    |
| CDRH104RS2R5NT | 2.5                      | 30               | 100KHz/0.25V   | 10.5                      | 7.50    |
| CDRH104RS3R3NT | 3.3                      | 30               | 100KHz/0.25V   | 13                        | 6.00    |
| CDRH104RS3R8NT | 3.8                      | 30               | 100KHz/0.25V   | 15                        | 6.00    |
| CDRH104RS4R7NT | 4.7                      | 30               | 100KHz/0.25V   | 23                        | 5.80    |
| CDRH104RS5R2NT | 5.2                      | 30               | 100KHz/0.25V   | 23                        | 5.50    |
| CDRH104RS6R8NT | 6.8                      | 30               | 100KHz/0.25V   | 27                        | 4.80    |
| CDRH104RS7R0NT | 7.0                      | 30               | 100KHz/0.25V   | 27                        | 4.80    |
| CDRH104RS8R2NT | 8.2                      | 30               | 100KHz/0.25V   | 35                        | 4.40    |
| CDRH104RS100MT | 10                       | 20               | 100KHz/0.25V   | 35                        | 4.40    |
| CDRH104RS120MT | 12                       | 20               | 100KHz/0.25V   | 46                        | 4.00    |
| CDRH104RS150MT | 15                       | 20               | 100KHz/0.25V   | 50                        | 3.60    |
| CDRH104RS180MT | 18                       | 20               | 100KHz/0.25V   | 70                        | 3.10    |
| CDRH104RS220MT | 22                       | 20               | 100KHz/0.25V   | 73                        | 2.90    |
| CDRH104RS270MT | 27                       | 20               | 100KHz/0.25V   | 89                        | 2.60    |

| Part Number    | Inductance<br>( $\mu$ H) | Tolerance<br>(%) | Test Condition | DCR Max.<br>(m $\Omega$ ) | Isat(A) |
|----------------|--------------------------|------------------|----------------|---------------------------|---------|
| CDRH104RS330MT | 33                       | 20               | 100KHz/0.25V   | 93                        | 2.30    |
| CDRH104RS390MT | 39                       | 20               | 100KHz/0.25V   | 125                       | 2.20    |
| CDRH104RS470MT | 47                       | 20               | 100KHz/0.25V   | 128                       | 2.10    |
| CDRH104RS560MT | 56                       | 20               | 100KHz/0.25V   | 188                       | 1.65    |
| CDRH104RS680MT | 68                       | 20               | 100KHz/0.25V   | 213                       | 1.50    |
| CDRH104RS820MT | 82                       | 20               | 100KHz/0.25V   | 300                       | 1.40    |
| CDRH104RS101MT | 100                      | 20               | 100KHz/0.25V   | 304                       | 1.35    |
| CDRH104RS121MT | 120                      | 20               | 100KHz/0.25V   | 420                       | 1.18    |

**CDRH105R Series**

| Part Number    | Inductance<br>( $\mu$ H) | Tolerance<br>(%) | Test Condition | DCR Max.<br>(m $\Omega$ ) | Isat(A) |
|----------------|--------------------------|------------------|----------------|---------------------------|---------|
| CDRH105RS1R5NT | 1.5                      | 30               | 100KHz/0.25V   | 6                         | 8.30    |
| CDRH105RS2R2NT | 2.2                      | 30               | 100KHz/0.25V   | 8                         | 7.50    |
| CDRH105RS3R3NT | 3.3                      | 30               | 100KHz/0.25V   | 11                        | 6.50    |
| CDRH105RS4R7NT | 4.7                      | 30               | 100KHz/0.25V   | 13                        | 6.10    |
| CDRH105RS6R8NT | 6.8                      | 30               | 100KHz/0.25V   | 18                        | 5.40    |
| CDRH105RS8R2NT | 8.2                      | 30               | 100KHz/0.25V   | 20                        | 5.00    |
| CDRH105RS100MT | 10                       | 20               | 100KHz/0.25V   | 26                        | 4.50    |
| CDRH105RS120MT | 12                       | 20               | 100KHz/0.25V   | 33                        | 3.80    |
| CDRH105RS150MT | 15                       | 20               | 100KHz/0.25V   | 41                        | 3.40    |
| CDRH105RS180MT | 18                       | 20               | 100KHz/0.25V   | 46                        | 3.10    |
| CDRH105RS220MT | 22                       | 20               | 100KHz/0.25V   | 61                        | 2.90    |
| CDRH105RS270MT | 27                       | 20               | 100KHz/0.25V   | 69                        | 2.60    |
| CDRH105RS330MT | 33                       | 20               | 100KHz/0.25V   | 84                        | 2.50    |
| CDRH105RS390MT | 39                       | 20               | 100KHz/0.25V   | 106                       | 2.25    |
| CDRH105RS470MT | 47                       | 20               | 100KHz/0.25V   | 130                       | 2.00    |
| CDRH105RS560MT | 56                       | 20               | 100KHz/0.25V   | 149                       | 1.90    |
| CDRH105RS680MT | 68                       | 20               | 100KHz/0.25V   | 201                       | 1.60    |
| CDRH105RS820MT | 82                       | 20               | 100KHz/0.25V   | 227                       | 1.45    |
| CDRH105RS101MT | 100                      | 20               | 100KHz/0.25V   | 253                       | 1.35    |
| CDRH105RS121MT | 120                      | 20               | 100KHz/0.25V   | 303                       | 1.18    |
| CDRH105RS151MT | 150                      | 20               | 100KHz/0.25V   | 370                       | 1.10    |
| CDRH105RS181MT | 180                      | 20               | 100KHz/0.25V   | 419                       | 1.00    |
| CDRH105RS221MT | 220                      | 20               | 100KHz/0.25V   | 500                       | 0.94    |
| CDRH105RS271MT | 270                      | 20               | 100KHz/0.25V   | 672                       | 0.80    |
| CDRH105RS331MT | 330                      | 20               | 100KHz/0.25V   | 812                       | 0.73    |
| CDRH105RS391MT | 390                      | 20               | 100KHz/0.25V   | 953                       | 0.70    |
| CDRH105RS471MT | 470                      | 20               | 100KHz/0.25V   | 1289                      | 0.54    |
| CDRH105RS561MT | 560                      | 20               | 100KHz/0.25V   | 1430                      | 0.52    |
| CDRH105RS681MT | 680                      | 20               | 100KHz/0.25V   | 1599                      | 0.51    |

| Part Number    | Inductance<br>( $\mu$ H) | Tolerance<br>(%) | Test Condition | DCR Max.<br>(m $\Omega$ ) | Isat(A) |
|----------------|--------------------------|------------------|----------------|---------------------------|---------|
| CDRH105RS821MT | 820                      | 20               | 100KHz/0.25V   | 1768                      | 0.48    |
| CDRH105RS102MT | 1000                     | 20               | 100KHz/0.25V   | 1989                      | 0.42    |

**Note:**

Isat: DC current at which the inductance drops approximate 30% from its value without current.