

## MHCC、MHCI Series



MHCC series is designed for low profile type with low RDC and ultra large current. Its molded magnetic shielded type is suitable for high-density mounting and ultra low buzz noise. Soldering conditions can be easily confirmed when mounting onto the board. This series also provides customers with embossed carrier type packaging for automatic mounting machine.

### Features

- RoHS, Halogen Free and REACH Compliance
- High rated current
- Ultra low buzz noise

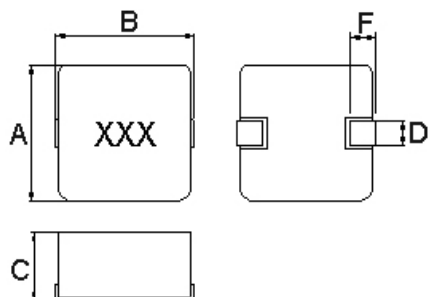
### Applications

- Laptops and PCs
- Switches and servers
- Base stations
- DC/DC converters

### Product Identification



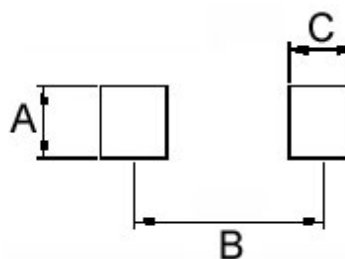
### Shape and Dimensions



Dimensions in mm

| TYPE  | A        | B Max   | C Max   | D       | F       |
|-------|----------|---------|---------|---------|---------|
| 04012 | 4.1±0.2  | 4.6±0.2 | 1.2     | 1.5±0.3 | 1.0±0.5 |
| 04015 | 4.1±0.2  | 4.6±0.2 | 1.5     | 1.5±0.3 | 1.0±0.5 |
| 04020 | 4.1±0.2  | 4.6±0.2 | 2.0     | 1.5±0.3 | 1.0±0.5 |
| 05012 | 5.4±0.35 | 5.7±0.2 | 1.2     | 2.0±0.3 | 1.5±0.3 |
| 05015 | 5.4±0.35 | 5.7±0.2 | 1.5     | 2.0±0.3 | 1.5±0.3 |
| 05018 | 5.4±0.35 | 5.7±0.2 | 1.8     | 2.0±0.3 | 1.5±0.3 |
| 05020 | 5.4±0.35 | 5.7±0.2 | 1.8±0.2 | 2.0±0.3 | 1.5±0.3 |
| 05030 | 5.4±0.35 | 5.7±0.2 | 3.0     | 2.0±0.3 | 1.5±0.3 |
| 06012 | 6.6±0.2  | 7.3     | 1.2     | 2.9     | 1.6±0.5 |
| 06015 | 6.6±0.2  | 7.3     | 1.3±0.2 | 2.9     | 1.6±0.5 |
| 06018 | 6.6±0.2  | 7.3     | 1.6±0.2 | 2.9     | 1.6±0.5 |
| 06024 | 6.6±0.2  | 7.3     | 2.4     | 2.9     | 1.6±0.5 |
| 06030 | 6.6±0.2  | 7.3     | 3.0     | 2.9     | 1.6±0.5 |
| 06050 | 6.6±0.2  | 7.3     | 5.0     | 2.9     | 1.6±0.5 |
| 10030 | 10.1±0.3 | 11.6    | 3.0     | 3.0     | 2.5±0.5 |
| 10040 | 10.1±0.3 | 11.6    | 4.0     | 3.0     | 2.5±0.5 |
| 12050 | 12.6±0.2 | 13.8    | 5.0     | 3.7     | 2.7±0.7 |
| 12060 | 12.6±0.2 | 13.8    | 6.0     | 3.7     | 2.7±0.7 |

### Recommended Pattern



Dimensions in mm

| TYPE  | A   | B    | C    |
|-------|-----|------|------|
| 04012 | 2.5 | 3.7  | 1.5  |
| 04015 | 2.5 | 3.7  | 1.5  |
| 04020 | 2.5 | 3.7  | 1.5  |
| 05012 | 2.5 | 4.1  | 1.9  |
| 05015 | 2.5 | 4.1  | 1.9  |
| 05018 | 2.5 | 4.1  | 1.9  |
| 05020 | 2.5 | 4.1  | 1.9  |
| 05030 | 2.5 | 4.1  | 1.9  |
| 06012 | 3.5 | 6.05 | 2.35 |
| 06015 | 3.5 | 6.05 | 2.35 |
| 06018 | 3.5 | 6.05 | 2.35 |
| 06024 | 3.5 | 6.05 | 2.35 |
| 06030 | 3.5 | 6.05 | 2.35 |
| 06050 | 3.5 | 6.05 | 2.35 |
| 10030 | 4.0 | 9.5  | 3.5  |
| 10040 | 4.0 | 9.5  | 3.5  |
| 12050 | 5.0 | 10.5 | 4.0  |
| 12060 | 5.0 | 10.5 | 4.0  |

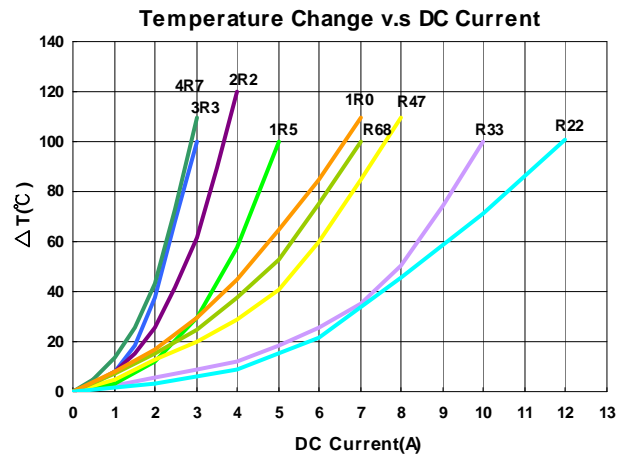
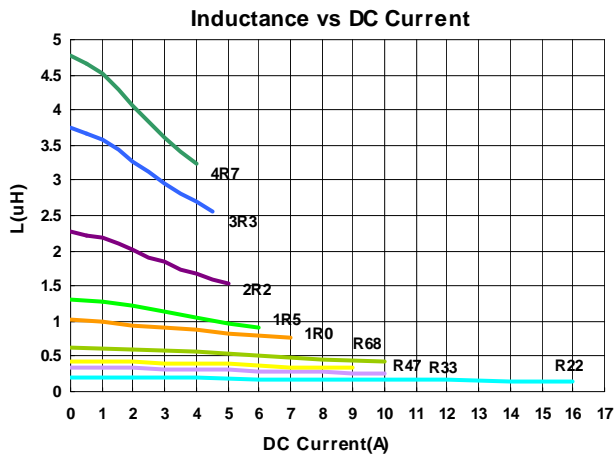
## Electrical Characteristics

| Part Number       | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|-------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCI04012-R22M-R8 | 0.22            | 20             | 100                  | 12           | 11.5         | 8.5          |
| MHCI04012-R33M-R8 | 0.33            | 20             | 100                  | 19           | 8.5          | 6.5          |
| MHCI04012-R47M-R8 | 0.47            | 20             | 100                  | 25           | 7.0          | 5.0          |
| MHCI04012-R68M-R8 | 0.68            | 20             | 100                  | 36           | 6.0          | 4.5          |
| MHCI04012-1R0M-R8 | 1.0             | 20             | 100                  | 47           | 5.2          | 4.2          |
| MHCI04012-1R5M-R8 | 1.5             | 20             | 100                  | 75           | 4.0          | 3.25         |
| MHCI04012-2R2M-R8 | 2.2             | 20             | 100                  | 83.5         | 3.5          | 2.75         |
| MHCI04012-3R3M-R8 | 3.3             | 20             | 100                  | 165          | 3.0          | 2.0          |
| MHCI04012-4R7M-R8 | 4.7             | 20             | 100                  | 195          | 2.8          | 1.8          |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value with current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : WK 3260B or WK 6500P, 100kHz 0.5V  
 RDC : CHEN HWA 502 or CHEN HWA 46502B

**Test Instruments :** WK3260B Impedance / Material Analyzer



# Molding Power Choke – MHCC/MHCI Series

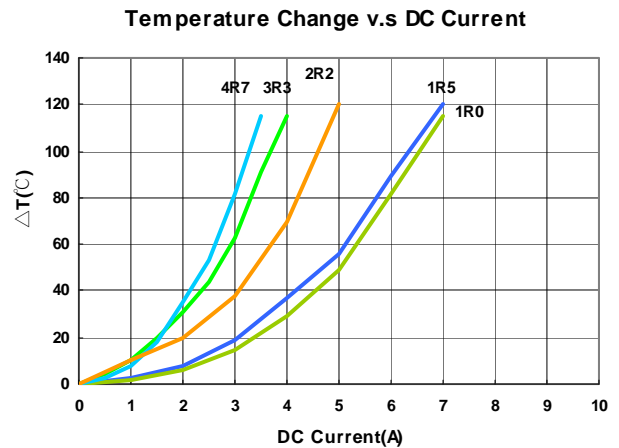
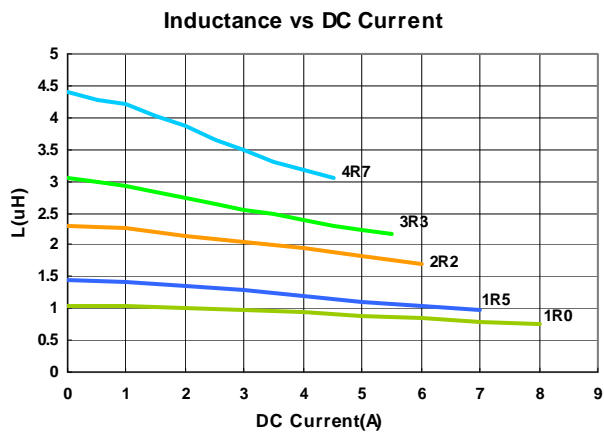
## Electrical Characteristics

| Part Number       | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|-------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCI04015-1R0M-R8 | 1.0             | 20             | 100                  | 42           | 7            | 4            |
| MHCI04015-1R5M-R8 | 1.5             | 20             | 100                  | 50           | 6            | 3.5          |
| MHCI04015-2R2M-R8 | 2.2             | 20             | 100                  | 79           | 5            | 3            |
| MHCI04015-3R3M-R8 | 3.3             | 20             | 100                  | 132          | 4.5          | 2.3          |
| MHCI04015-4R7M-R8 | 4.7             | 20             | 100                  | 146          | 4            | 2            |

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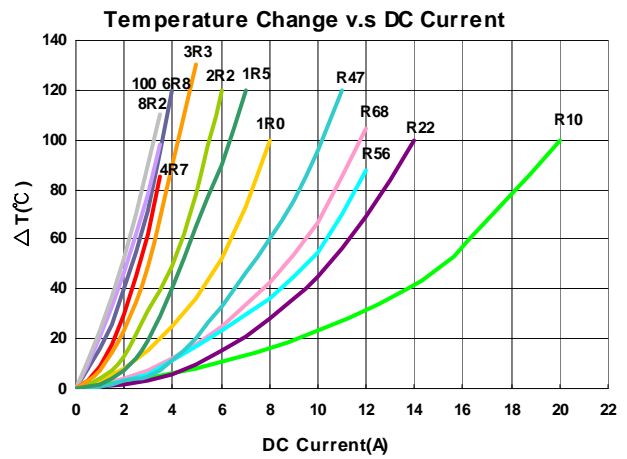
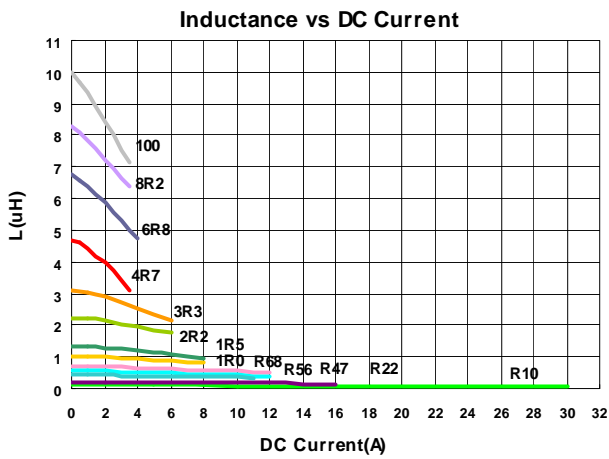
## Electrical Characteristics

| Part Number       | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|-------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCI04020-R10M-R8 | 0.10            | 20             | 100                  | 4            | 25           | 12.0         |
| MHCI04020-R22M-R8 | 0.22            | 20             | 100                  | 6.6          | 12.5         | 9.0          |
| MHCI04020-R47M-R8 | 0.47            | 20             | 100                  | 14           | 9.5          | 7.0          |
| MHCI04020-R56M-R8 | 0.56            | 20             | 100                  | 16           | 10.0         | 6.5          |
| MHCI04020-R68M-R8 | 0.68            | 20             | 100                  | 21           | 8.0          | 5.2          |
| MHCI04020-1R0M-R8 | 1.0             | 20             | 100                  | 27           | 7.0          | 4.5          |
| MHCI04020-1R5M-R8 | 1.5             | 20             | 100                  | 46           | 6.0          | 4.0          |
| MHCI04020-2R2M-R8 | 2.2             | 20             | 100                  | 58           | 5.0          | 3.0          |
| MHCI04020-3R3M-R8 | 3.3             | 20             | 100                  | 87           | 4.0          | 2.5          |
| MHCI04020-4R7M-R8 | 4.7             | 20             | 100                  | 105          | 3.0          | 2.2          |
| MHCI04020-6R8M-R8 | 6.8             | 20             | 100                  | 135          | 2.5          | 2.0          |
| MHCI04020-8R2M-R8 | 8.2             | 20             | 100                  | 216          | 2.5          | 2.0          |
| MHCI04020-100M-R8 | 10              | 20             | 100                  | 258          | 2.0          | 1.6          |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

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- Measure Equipment :  
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 RDC : CHEN HWA 502 or CHEN HWA 46502B

**Test Instruments : WK3260B Impedance / Material Analyzer**



## Electrical Characteristics

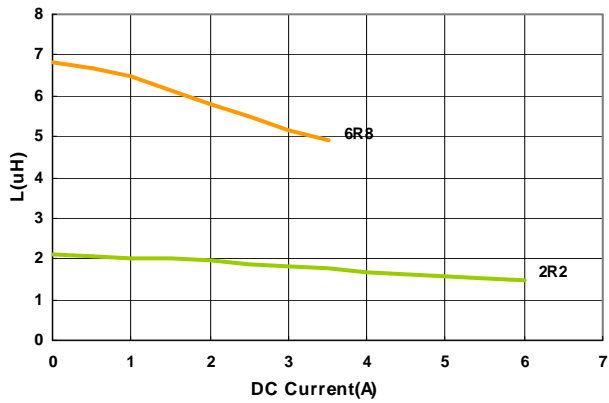
| Part Number        | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|--------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCI05012-2R2M-R8A | 2.2             | 20             | 100                  | 76           | 4            | 3.5          |
| MHCI05012-6R8M-R8A | 6.8             | 20             | 100                  | 250          | 2.3          | 2.0          |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

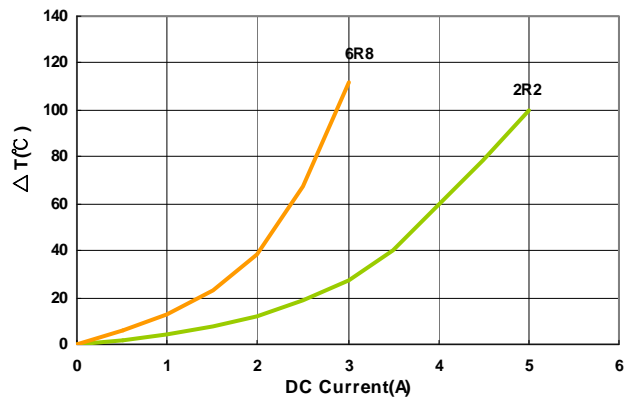
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- Irms for a 40°C temperature rise from 25°C ambient with current
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**Inductance vs DC Current**



**Temperature Change v.s DC Current**



# Molding Power Choke – MHCC/MHCI Series

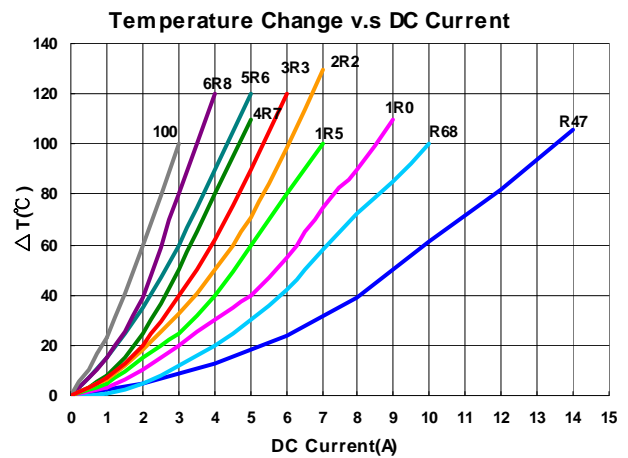
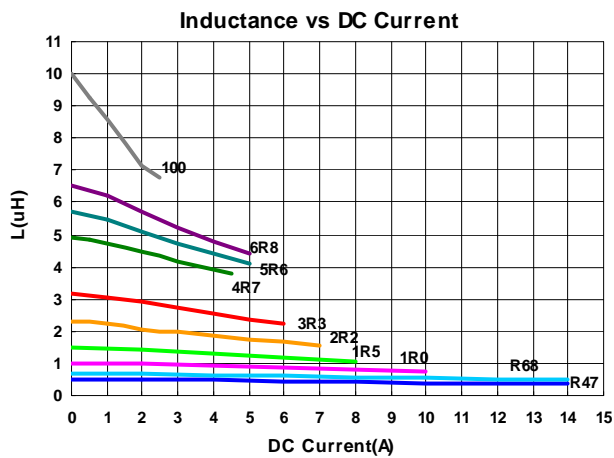
## Electrical Characteristics

| Part Number       | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|-------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCI05015-R47M-R8 | 0.47            | 20             | 100                  | 16           | 12           | 8.0          |
| MHCI05015-R68M-R8 | 0.68            | 20             | 100                  | 23           | 10           | 6.0          |
| MHCI05015-1R0M-R8 | 1.0             | 20             | 100                  | 33           | 8.0          | 5.0          |
| MHCI05015-1R5M-R8 | 1.5             | 20             | 100                  | 50           | 6.0          | 4.0          |
| MHCI05015-2R2M-R8 | 2.2             | 20             | 100                  | 68           | 6.0          | 3.3          |
| MHCI05015-3R3M-R8 | 3.3             | 20             | 100                  | 84           | 5.0          | 3.0          |
| MHCI05015-4R7M-R8 | 4.7             | 20             | 100                  | 135          | 4.0          | 2.5          |
| MHCI05015-5R6M-R8 | 5.6             | 20             | 100                  | 175          | 3.5          | 2.2          |
| MHCI05015-6R8M-R8 | 6.8             | 20             | 100                  | 192          | 3.0          | 2.0          |
| MHCI05015-100M-R8 | 10              | 20             | 100                  | 195          | 2.0          | 1.5          |

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**Test Instruments :** WK3260B Impedance / Material Analyzer



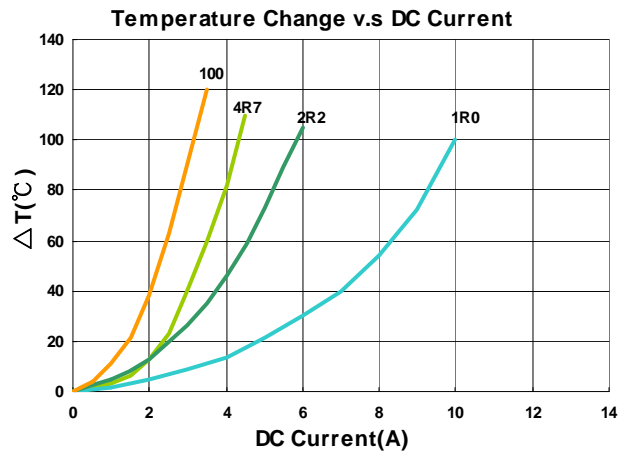
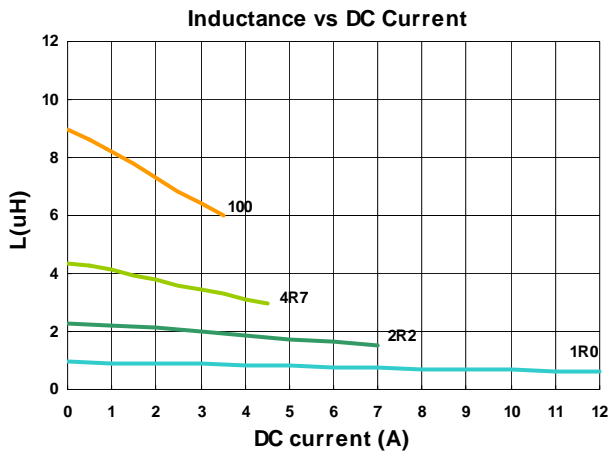
## Electrical Characteristics

| Part Number        | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|--------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCI05015-1R0M-R8A | 1.0             | 20             | 100                  | 23           | 9            | 6.5          |
| MHCI05015-2R2M-R8A | 2.2             | 20             | 100                  | 64           | 6            | 3.3          |
| MHCI05015-4R7M-R8A | 4.7             | 20             | 100                  | 106          | 4            | 3.0          |
| MHCI05015-100M-R8A | 10              | 20             | 100                  | 170          | 3            | 2.0          |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

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**Test Instruments :** WK3260B Impedance / Material Analyzer



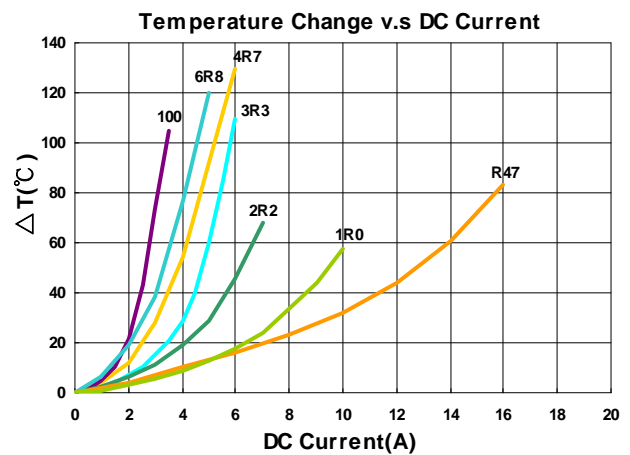
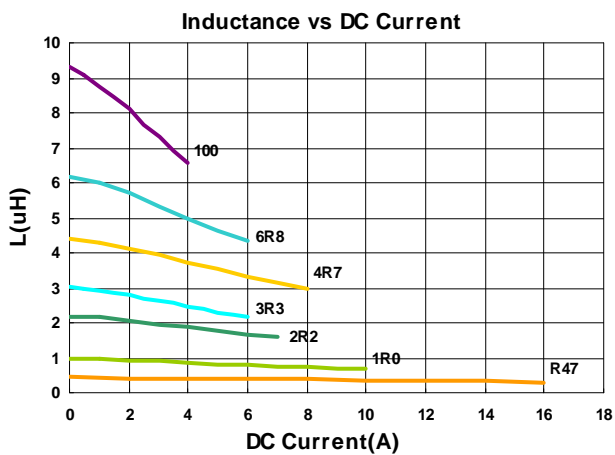
## Electrical Characteristics

| Part Number        | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|--------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCI05018-R47M-R8A | 0.47            | 20             | 100                  | 9.0          | 15.5         | 10.5         |
| MHCI05018-1R0M-R8A | 1.0             | 20             | 100                  | 17           | 9.0          | 8.0          |
| MHCI05018-2R2M-R8A | 2.2             | 20             | 100                  | 35           | 6.5          | 5.0          |
| MHCI05018-3R3M-R8A | 3.3             | 20             | 100                  | 58           | 5.0          | 4.5          |
| MHCI05018-4R7M-R8A | 4.7             | 20             | 100                  | 85           | 4.0          | 3.5          |
| MHCI05018-6R8M-R8A | 6.8             | 20             | 100                  | 120          | 3.4          | 2.8          |
| MHCI05018-100M-R8A | 10              | 20             | 100                  | 155          | 3.0          | 2.5          |

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**Test Instruments :** WK3260B Impedance / Material Analyzer





## Electrical Characteristics

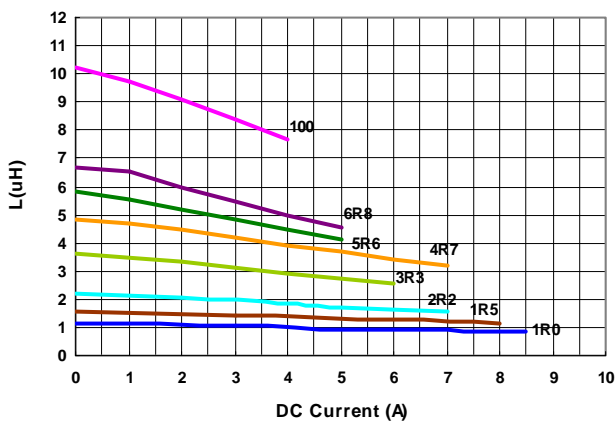
| Part Number       | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|-------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCI05020-R47M-R8 | 0.47            | 20             | 100                  | 9            | 15.5         | 10.5         |
| MHCI05020-1R0M-R8 | 1.0             | 20             | 100                  | 30           | 7.0          | 6.0          |
| MHCI05020-1R5M-R8 | 1.5             | 20             | 100                  | 35           | 6.5          | 5.5          |
| MHCI05020-2R2M-R8 | 2.2             | 20             | 100                  | 45           | 6.0          | 4.0          |
| MHCI05020-3R3M-R8 | 3.3             | 20             | 100                  | 60           | 5.5          | 3.5          |
| MHCI05020-4R7M-R8 | 4.7             | 20             | 100                  | 90           | 5.0          | 3.0          |
| MHCI05020-5R6M-R8 | 5.6             | 20             | 100                  | 120          | 4.5          | 2.8          |
| MHCI05020-6R8M-R8 | 6.8             | 20             | 100                  | 125          | 4.5          | 2.8          |
| MHCI05020-100M-R8 | 10              | 20             | 100                  | 180          | 4.0          | 2.3          |

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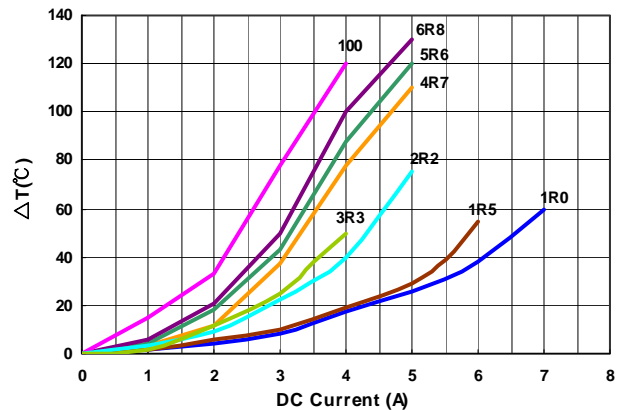
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
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**Test Instruments :** WK3260B Impedance / Material Analyzer

**Inductance v.s DC Current**



**Temperature Change v.s DC Current**



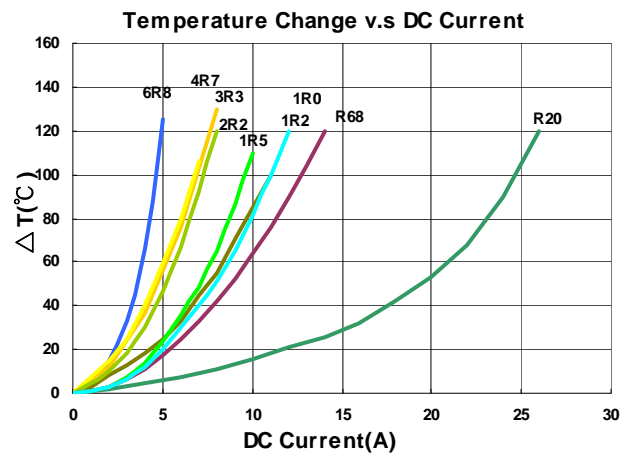
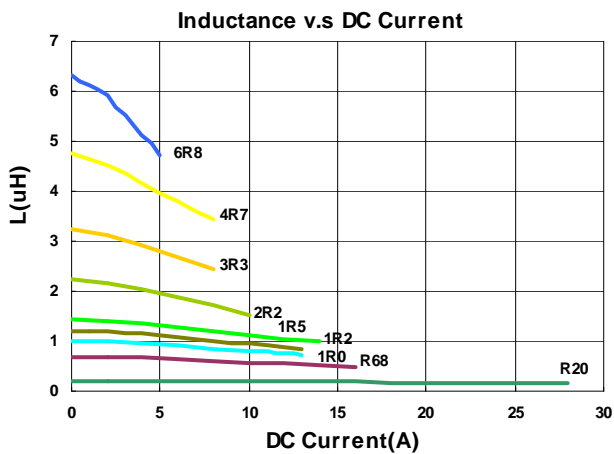
## Electrical Characteristics

| Part Number       | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ)Max | Isat (A)Typ. | Irms (A)Typ. |
|-------------------|-----------------|----------------|----------------------|-------------|--------------|--------------|
| MHCI05030-R20M-R8 | 0.20            | 20             | 100                  | 3.9         | 14.5         | 17.0         |
| MHCI05030-R47M-R8 | 0.47            | 20             | 100                  | 8           | 14           | 10.0         |
| MHCI05030-R68M-R8 | 0.68            | 20             | 100                  | 12          | 14           | 8.0          |
| MHCI05030-1R0M-R8 | 1.0             | 20             | 100                  | 15          | 11           | 7.0          |
| MHCI05030-1R2M-R8 | 1.2             | 20             | 100                  | 15          | 11           | 6.5          |
| MHCI05030-1R5M-R8 | 1.5             | 20             | 100                  | 25          | 10           | 6.0          |
| MHCI05030-2R2M-R8 | 2.2             | 20             | 100                  | 35          | 8            | 5.0          |
| MHCI05030-3R3M-R8 | 3.3             | 20             | 100                  | 46          | 7            | 4.5          |
| MHCI05030-4R7M-R8 | 4.7             | 20             | 100                  | 60          | 6            | 4.0          |
| MHCI05030-6R8M-R8 | 6.8             | 20             | 100                  | 110         | 5            | 3.0          |
| MHCI05030-100M-R8 | 10              | 20             | 100                  | 126         | 4.5          | 1.5          |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

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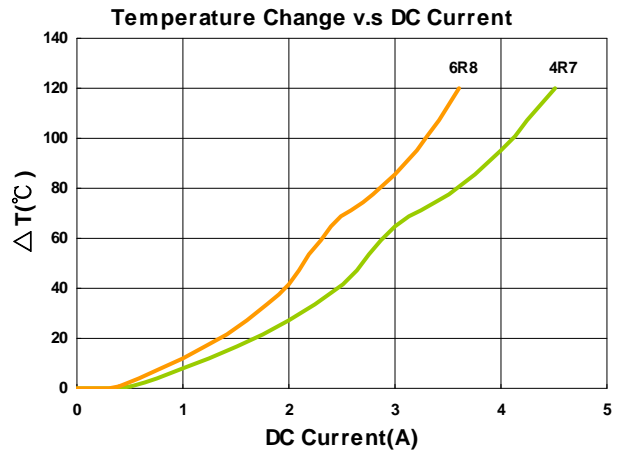
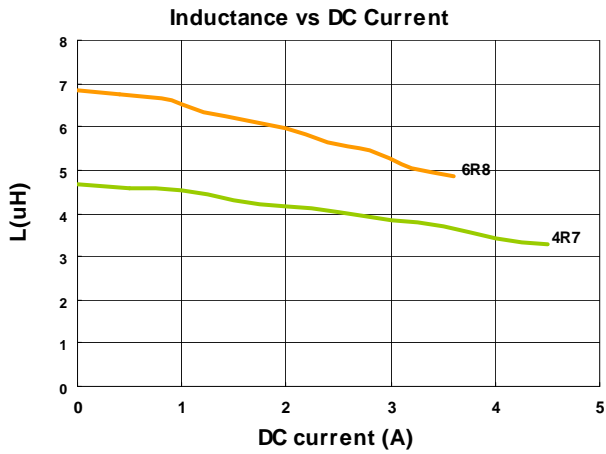
## Electrical Characteristics

| Part Number       | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|-------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCI06012-4R7M-R8 | 4.7             | 20             | 100                  | 160          | 4.0          | 2.4          |
| MHCI06012-6R8M-R8 | 6.8             | 20             | 100                  | 200          | 3.0          | 2.1          |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value with current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : WK 3260B or WK 6500P, 100kHz 0.5V  
 RDC : CHEN HWA 502 or CHEN HWA 46502B

**Test Instruments :** WK3260B Impedance / Material Analyzer



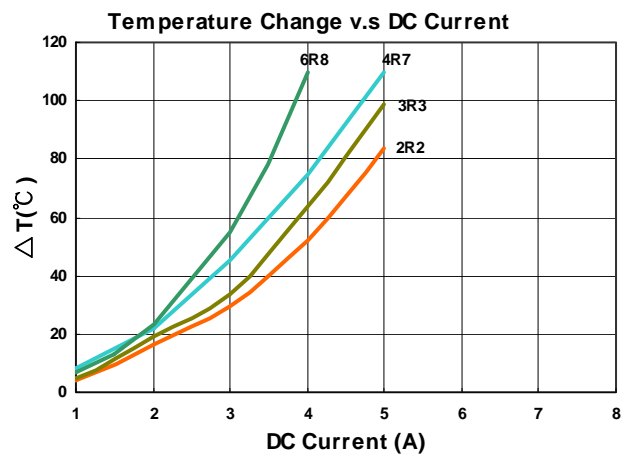
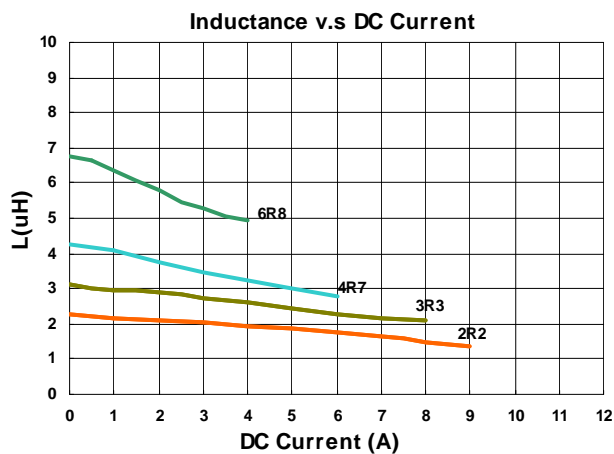
## Electrical Characteristics

| Part Number       | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ)Max | Isat (A)Typ. | Irms (A)Typ. |
|-------------------|-----------------|----------------|----------------------|-------------|--------------|--------------|
| MHCI06015-2R2M-R8 | 2.2             | 20             | 100                  | 54          | 6.0          | 3.5          |
| MHCI06015-3R3M-R8 | 3.3             | 20             | 100                  | 63          | 5.5          | 3.3          |
| MHCI06015-4R7M-R8 | 4.7             | 20             | 100                  | 105         | 4.5          | 3.2          |
| MHCI06015-6R8M-R8 | 6.8             | 20             | 100                  | 140         | 4.0          | 2.5          |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value with current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : WK 3260B or WK 6500P, 100kHz 0.5V  
 RDC : CHEN HWA 502 or CHEN HWA 46502B

**Test Instruments :** WK3260B Impedance / Material Analyzer



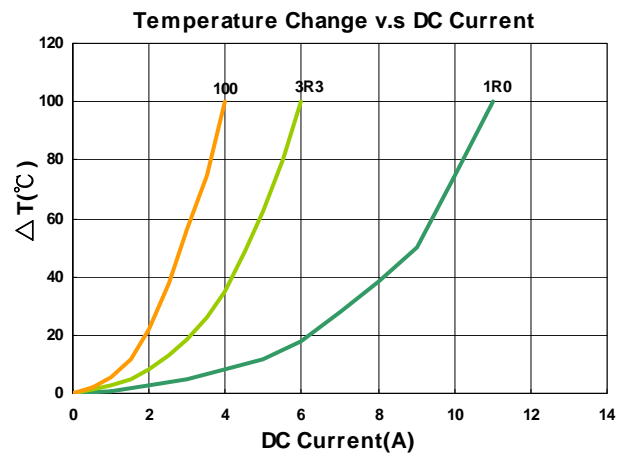
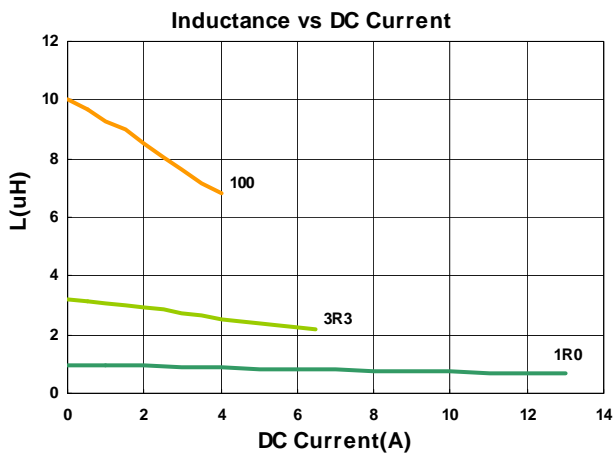
## Electrical Characteristics

| Part Number        | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ)Max | Isat (A)Typ. | Irms (A)Typ. |
|--------------------|-----------------|----------------|----------------------|-------------|--------------|--------------|
| MHCI06015-1R0M-R8A | 1.0             | 20             | 100                  | 21          | 9.0          | 5.5          |
| MHCI06015-3R3M-R8A | 3.3             | 20             | 100                  | 63          | 5.5          | 3.3          |
| MHCI06015-100M-R8A | 10              | 20             | 100                  | 175         | 3.0          | 2.0          |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value with current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : WK 3260B or WK 6500P, 100kHz 0.5V  
 RDC : CHEN HWA 502 or CHEN HWA 46502B

**Test Instruments :** WK3260B Impedance / Material Analyzer



## Electrical Characteristics

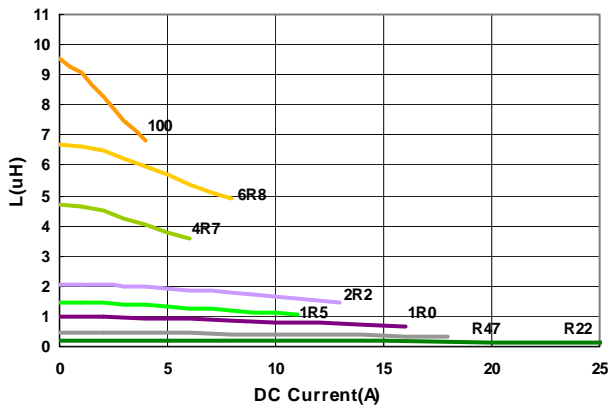
| Part Number        | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ)Max | Isat (A)Typ. | Irms (A)Typ. |
|--------------------|-----------------|----------------|----------------------|-------------|--------------|--------------|
| MHCI06018-R22M-R8A | 0.22            | 20             | 100                  | 5.2         | 29           | 14           |
| MHCI06018-R33M-R8A | 0.33            | 20             | 100                  | 6.8         | 22           | 12           |
| MHCI06018-R47M-R8A | 0.47            | 20             | 100                  | 8.4         | 18           | 11           |
| MHCI06018-R68M-R8A | 0.68            | 20             | 100                  | 12.7        | 17           | 9            |
| MHCI06018-1R0M-R8A | 1.0             | 20             | 100                  | 17          | 14           | 7            |
| MHCI06018-1R5M-R8A | 1.5             | 20             | 100                  | 26          | 12           | 6.5          |
| MHCI06018-2R2M-R8A | 2.2             | 20             | 100                  | 35          | 10           | 6.0          |
| MHCI06018-4R7M-R8A | 4.7             | 20             | 100                  | 70          | 5            | 3.5          |
| MHCI06018-6R8M-R8A | 6.8             | 20             | 100                  | 110         | 3.5          | 2.8          |
| MHCI06018-100M-R8A | 10              | 20             | 100                  | 155         | 2.5          | 2.3          |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

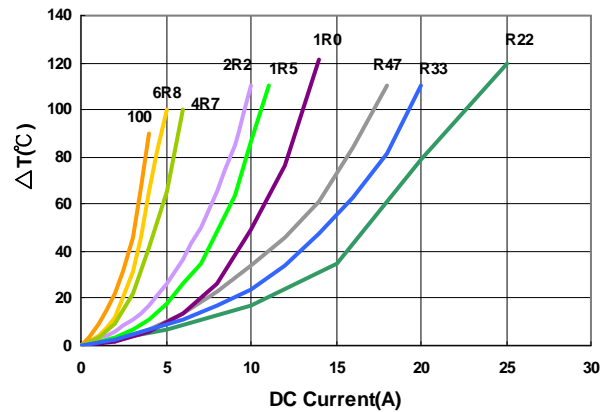
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value with current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : WK 3260B or WK 6500P, 100kHz 0.5V  
 RDC : CHEN HWA 502 or CHEN HWA 46502B

**Test Instruments :** WK3260B Impedance / Material Analyzer

**Inductance vs DC Current**



**Temperature Change v.s DC Current**



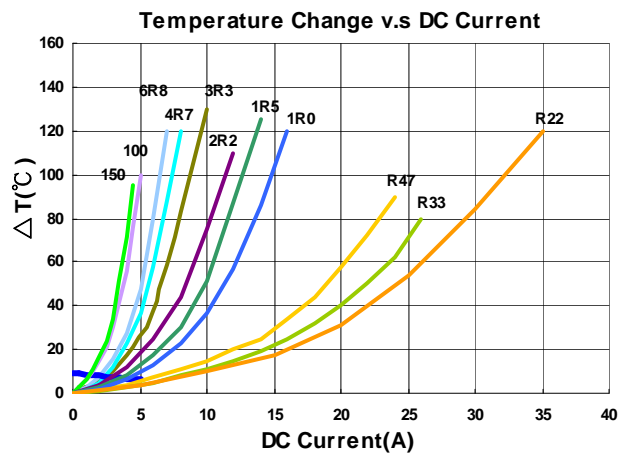
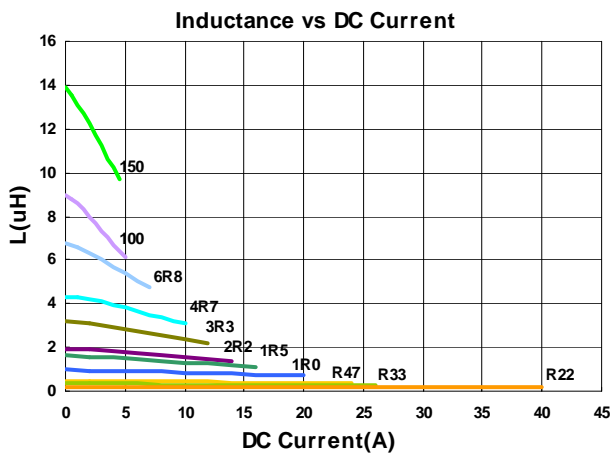
## Electrical Characteristics

| Part Number        | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ)Max | Isat (A)Typ. | Irms (A)Typ. |
|--------------------|-----------------|----------------|----------------------|-------------|--------------|--------------|
| MHCI06024-R22M-R8A | 0.22            | 20             | 100                  | 3.2         | 34           | 21           |
| MHCI06024-R33M-R8A | 0.33            | 20             | 100                  | 4.1         | 24.5         | 18           |
| MHCI06024-R47M-R8A | 0.47            | 20             | 100                  | 5.1         | 22           | 15           |
| MHCI06024-1R0M-R8A | 1.0             | 20             | 100                  | 13.5        | 16           | 9            |
| MHCI06024-1R5M-R8A | 1.5             | 20             | 100                  | 20          | 15           | 9            |
| MHCI06024-2R2M-R8A | 2.2             | 20             | 100                  | 28          | 14           | 7            |
| MHCI06024-3R3M-R8A | 3.3             | 20             | 100                  | 39          | 10           | 5.5          |
| MHCI06024-4R7M-R8A | 4.7             | 20             | 100                  | 50          | 10           | 5.0          |
| MHCI06024-6R8M-R8A | 6.8             | 20             | 100                  | 70          | 6.0          | 4.0          |
| MHCI06024-100M-R8A | 10              | 20             | 100                  | 101         | 4.0          | 3.1          |
| MHCI06024-150M-R8A | 15              | 20             | 100                  | 160         | 3.3          | 2.5          |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value with current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : WK 3260B or WK 6500P, 100kHz 0.5V  
 RDC : CHEN HWA 502 or CHEN HWA 46502B

**Test Instruments :** WK3260B Impedance / Material Analyzer



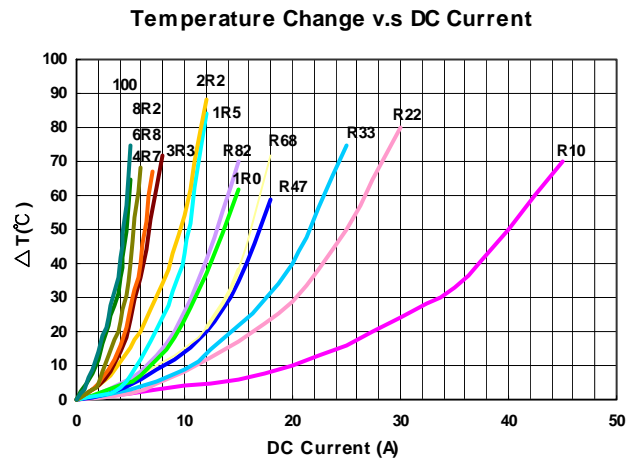
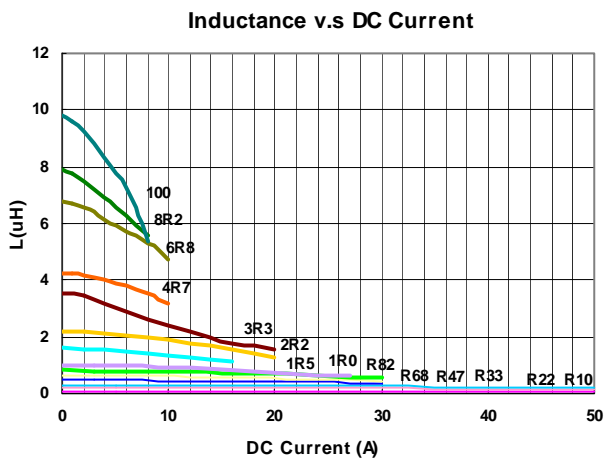
## Electrical Characteristics

| Part Number       | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|-------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCI06030-R10M-R8 | 0.10            | 20             | 100                  | 1.5          | 45           | 37           |
| MHCI06030-R22M-R8 | 0.22            | 20             | 100                  | 2.8          | 40           | 23           |
| MHCI06030-R33M-R8 | 0.33            | 20             | 100                  | 4.2          | 33           | 20           |
| MHCI06030-R47M-R8 | 0.47            | 20             | 100                  | 5.5          | 27           | 16.5         |
| MHCI06030-R56M-R8 | 0.56            | 20             | 100                  | 5.5          | 27           | 16.5         |
| MHCI06030-R68M-R8 | 0.68            | 20             | 100                  | 6.3          | 24           | 15           |
| MHCI06030-R82M-R8 | 0.82            | 20             | 100                  | 8.0          | 23           | 13           |
| MHCI06030-1R0M-R8 | 1.0             | 20             | 100                  | 10           | 22           | 12           |
| MHCI06030-1R5M-R8 | 1.5             | 20             | 100                  | 15           | 18           | 9.5          |
| MHCI06030-1R8M-R8 | 1.8             | 20             | 100                  | 15           | 14           | 9.5          |
| MHCI06030-2R2M-R8 | 2.2             | 20             | 100                  | 20           | 14           | 8.5          |
| MHCI06030-3R3M-R8 | 3.3             | 20             | 100                  | 35           | 12           | 6.0          |
| MHCI06030-4R7M-R8 | 4.7             | 20             | 100                  | 40           | 9            | 5.5          |
| MHCI06030-5R6M-R8 | 5.6             | 20             | 100                  | 40           | 8            | 5.5          |
| MHCI06030-6R8M-R8 | 6.8             | 20             | 100                  | 60           | 8            | 4.5          |
| MHCC06030-8R2M-R7 | 8.2             | 20             | 100                  | 60           | 6            | 4.5          |
| MHCC06030-100M-R7 | 10              | 20             | 100                  | 68           | 5.5          | 4.0          |
| MHCI06030-150M-R8 | 15              | 20             | 100                  | 122          | 5.0          | 3.0          |
| MHCI06030-330M-R8 | 33              | 20             | 100                  | 270          | 3.0          | 2.0          |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

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- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : WK 3260B or WK 6500P, 100kHz 0.5V  
 RDC : CHEN HWA 502 or CHEN HWA 46502B

**Test Instruments : WK3260B Impedance / Material Analyzer**





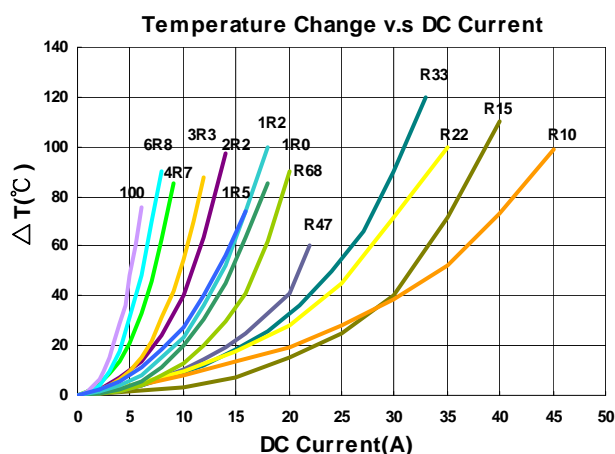
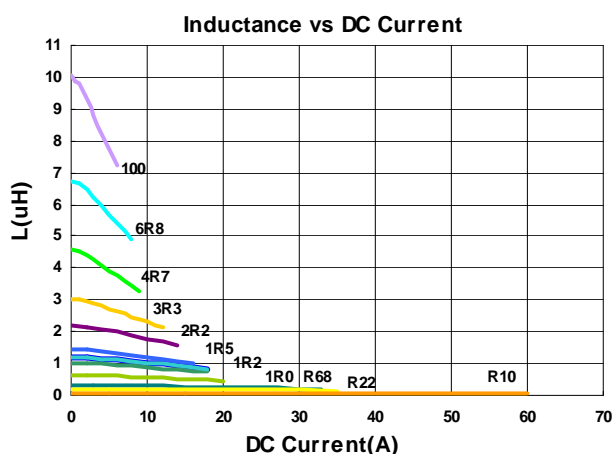
## Electrical Characteristics

| Part Number        | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ)Max | Isat (A)Typ. | Irms (A)Typ. |
|--------------------|-----------------|----------------|----------------------|-------------|--------------|--------------|
| MHCI06030-R10M-R8A | 0.10            | 20             | 100                  | 1.7         | 60           | 32.5         |
| MHCI06030-R15M-R8A | 0.15            | 20             | 100                  | 2.5         | 60           | 30           |
| MHCI06030-R22M-R8A | 0.22            | 20             | 100                  | 3.0         | 34           | 23           |
| MHCI06030-R33M-R8A | 0.33            | 20             | 100                  | 3.5         | 25           | 21           |
| MHCI06030-R36M-R8A | 0.36            | 20             | 100                  | 3.9         | 24           | 20           |
| MHCI06030-R47M-R8A | 0.47            | 20             | 100                  | 4.1         | 20           | 18           |
| MHCI06030-R56M-R8A | 0.56            | 20             | 100                  | 4.5         | 18           | 16.5         |
| MHCI06030-R68M-R8A | 0.68            | 20             | 100                  | 5.3         | 17           | 16           |
| MHCI06030-R82M-R8A | 0.82            | 20             | 100                  | 6.0         | 16           | 14           |
| MHCI06030-1R0M-R8A | 1.0             | 20             | 100                  | 7.4         | 15           | 12           |
| MHCI06030-1R2M-R8A | 1.2             | 20             | 100                  | 10          | 14           | 10           |
| MHCI06030-1R5M-R8A | 1.5             | 20             | 100                  | 12.1        | 14           | 10           |
| MHCI06030-2R2M-R8A | 2.2             | 20             | 100                  | 15          | 10           | 8            |
| MHCI06030-3R3M-R8A | 3.3             | 20             | 100                  | 22          | 9.5          | 6.5          |
| MHCI06030-4R7M-R8A | 4.7             | 20             | 100                  | 33          | 6.5          | 5.5          |
| MHCI06030-6R8M-R8A | 6.8             | 20             | 100                  | 50          | 6            | 4.5          |
| MHCI06030-100M-R8A | 10              | 20             | 100                  | 68          | 5.5          | 4            |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value with current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : WK 3260B or WK 6500P, 100kHz 0.5V  
 RDC : CHEN HWA 502 or CHEN HWA 46502B

**Test Instruments : WK3260B Impedance / Material Analyzer**



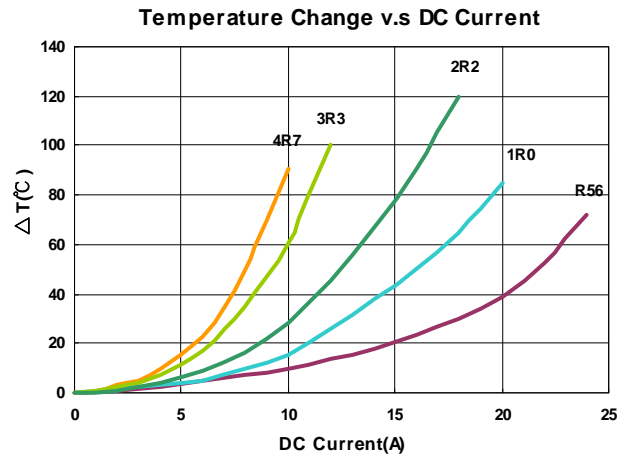
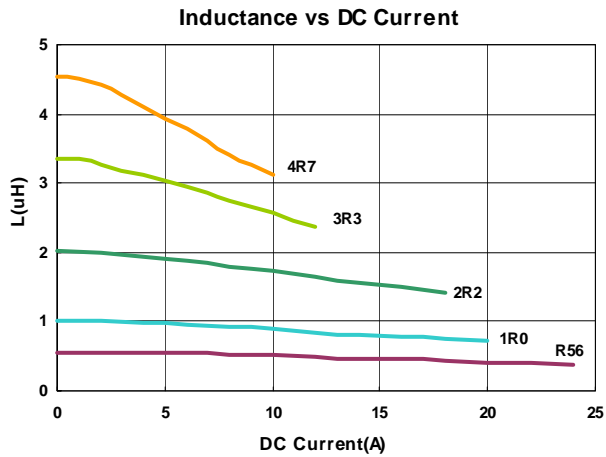
## Electrical Characteristics

| Part Number        | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|--------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCI06050-R56M-R8A | 0.56            | 20             | 100                  | 3.3          | 20           | 20           |
| MHCI06050-1R0M-R8A | 1.0             | 20             | 100                  | 6.5          | 15           | 13           |
| MHCI06050-2R2M-R8A | 2.2             | 20             | 100                  | 12.5         | 12           | 8            |
| MHCI06050-3R3M-R8A | 3.3             | 20             | 100                  | 20.9         | 9            | 7            |
| MHCI06050-4R7M-R8A | 4.7             | 20             | 100                  | 25.0         | 7            | 6.5          |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value with current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : WK 3260B or WK 6500P, 100kHz 0.5V  
 RDC : CHEN HWA 502 or CHEN HWA 46502B

**Test Instruments :** WK3260B Impedance / Material Analyzer



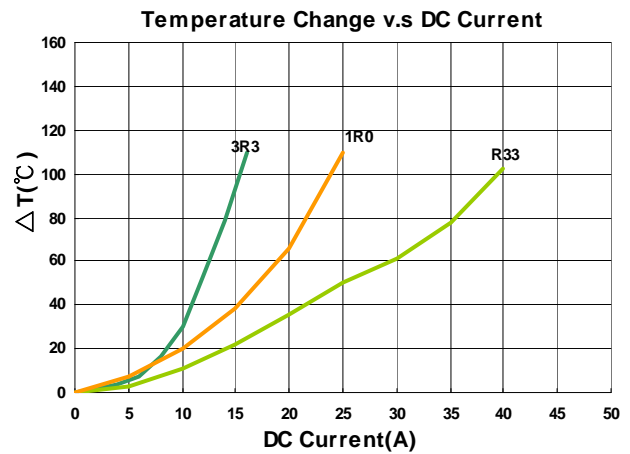
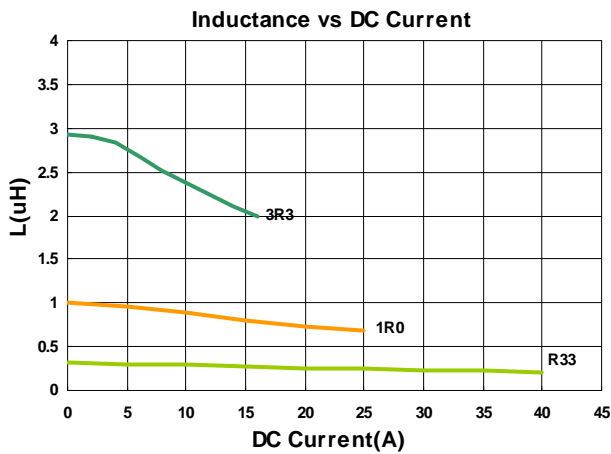
## Electrical Characteristics

| Part Number        | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|--------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCC10030-R33M-R7A | 0.33            | 20             | 100                  | 1.6          | 32           | 23           |
| MHCC10030-1R0M-R7A | 1.0             | 20             | 100                  | 6.0          | 21           | 15           |
| MHCC10030-3R3M-R7A | 3.3             | 20             | 100                  | 16.0         | 14           | 9            |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value with current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : WK 3260B or WK 6500P, 100kHz 0.5V  
 RDC : CHEN HWA 502 or CHEN HWA 46502B

**Test Instruments :** WK3260B Impedance / Material Analyzer



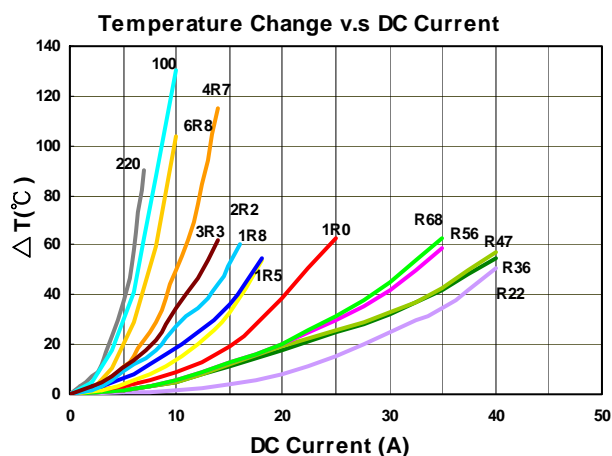
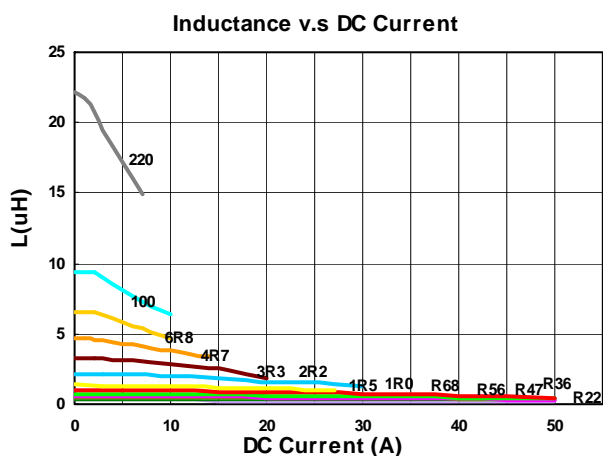
## Electrical Characteristics

| Part Number       | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|-------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCC10040-R22M-R7 | 0.22            | 20             | 100                  | 0.6          | 45           | 35           |
| MHCC10040-R36M-R7 | 0.36            | 20             | 100                  | 1.2          | 42           | 34           |
| MHCC10040-R45M-R7 | 0.45            | 20             | 100                  | 1.2          | 38           | 33           |
| MHCC10040-R47M-R7 | 0.47            | 20             | 100                  | 1.2          | 38           | 33           |
| MHCC10040-R56M-R7 | 0.56            | 20             | 100                  | 1.55         | 32           | 27           |
| MHCC10040-R68M-R7 | 0.68            | 20             | 100                  | 1.55         | 30           | 27           |
| MHCC10040-1R0M-R7 | 1.0             | 20             | 100                  | 3.1          | 26           | 20           |
| MHCC10040-1R5M-R7 | 1.5             | 20             | 100                  | 4.2          | 22           | 16           |
| MHCC10040-1R8M-R7 | 1.8             | 20             | 100                  | 5            | 16           | 15.3         |
| MHCC10040-2R2M-R7 | 2.2             | 20             | 100                  | 7            | 16           | 14           |
| MHCC10040-3R3M-R7 | 3.3             | 20             | 100                  | 13.2         | 12           | 11           |
| MHCC10040-4R7M-R7 | 4.7             | 20             | 100                  | 16.5         | 12           | 9            |
| MHCC10040-6R8M-R7 | 6.8             | 20             | 100                  | 25           | 10           | 6            |
| MHCC10040-8R2M-R7 | 8.2             | 20             | 100                  | 30           | 9            | 6            |
| MHCC10040-100M-R7 | 10              | 20             | 100                  | 30           | 7            | 6.5          |
| MHCC10040-150M-R7 | 15              | 20             | 100                  | 45           | 6            | 6.25         |
| MHCC10040-220M-R7 | 22              | 20             | 100                  | 72           | 5.5          | 5            |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

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- Isat for Inductance drop 30% from its value with current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : WK 3260B or WK 6500P, 100kHz 0.5V  
 RDC : CHEN HWA 502 or CHEN HWA 46502B

**Test Instruments : WK3260B Impedance / Material Analyzer**



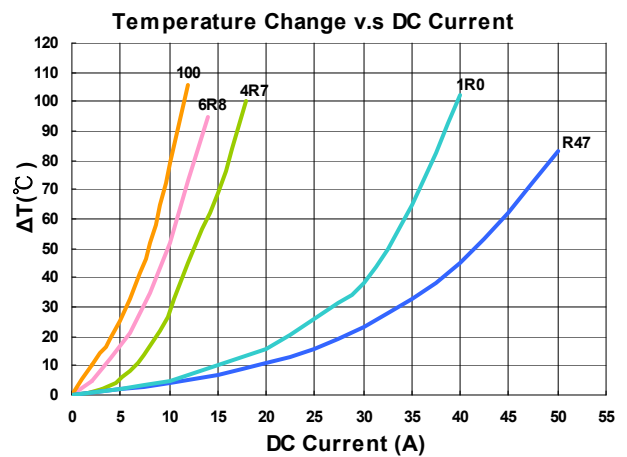
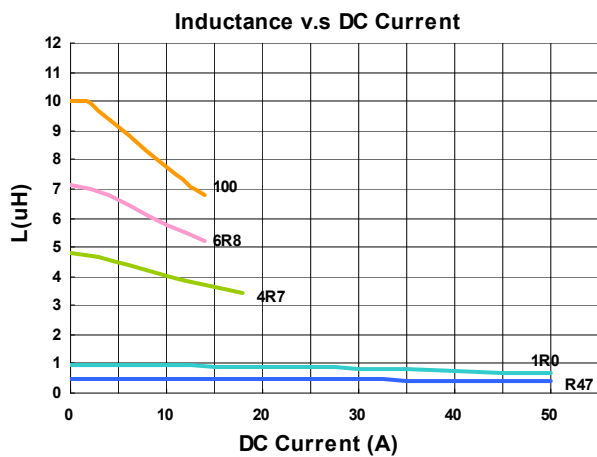
## Electrical Characteristics

| Part Number       | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|-------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCC12050-R47M-R7 | 0.47            | 20             | 100                  | 1.2          | 46           | 37           |
| MHCC12050-1R0M-R7 | 1.0             | 20             | 100                  | 2.5          | 37           | 29           |
| MHCC12050-1R5M-R7 | 1.5             | 20             | 100                  | 3.0          | 28           | 28           |
| MHCC12050-4R7M-R7 | 4.7             | 20             | 100                  | 11.5         | 16           | 11           |
| MHCC12050-6R8M-R7 | 6.8             | 20             | 100                  | 22           | 14           | 9            |
| MHCC12050-100M-R7 | 10              | 20             | 100                  | 35           | 13           | 7            |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value with current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : WK 3260B or WK 6500P, 100kHz 0.5V  
 RDC : CHEN HWA 502 or CHEN HWA 46502B

**Test Instruments :** WK3260B Impedance / Material Analyzer



## Electrical Characteristics

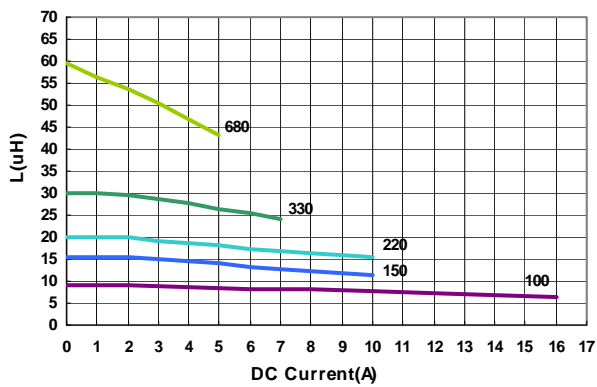
| Part Number        | Inductance (uH) | Tolerance (±%) | Test Frequency (kHz) | RDC (mΩ) Max | Isat (A)Typ. | Irms (A)Typ. |
|--------------------|-----------------|----------------|----------------------|--------------|--------------|--------------|
| MHCC12060-100M-R7A | 10              | 20             | 100                  | 20.7         | 12.5         | 10           |
| MHCC12060-150M-R7A | 15              | 20             | 100                  | 29.0         | 9.0          | 6.0          |
| MHCC12060-220M-R7A | 22              | 20             | 100                  | 39.5         | 7.5          | 5.0          |
| MHCC12060-330M-R7A | 33              | 20             | 100                  | 75           | 6.0          | 4.0          |
| MHCC12060-680M-R7A | 68              | 20             | 100                  | 140          | 4.5          | 3.0          |

**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

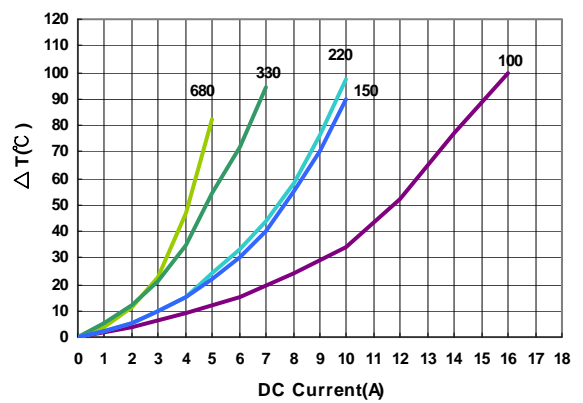
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value with current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :  
 L : WK 3260B or WK 6500P, 100kHz 0.5V  
 RDC : CHEN HWA 502 or CHEN HWA 46502B

**Test Instruments :** WK3260B Impedance / Material Analyzer

**Inductance vs DC Current**

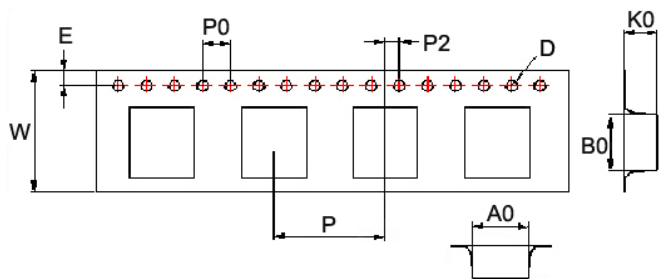


**Temperature Change v.s DC Current**

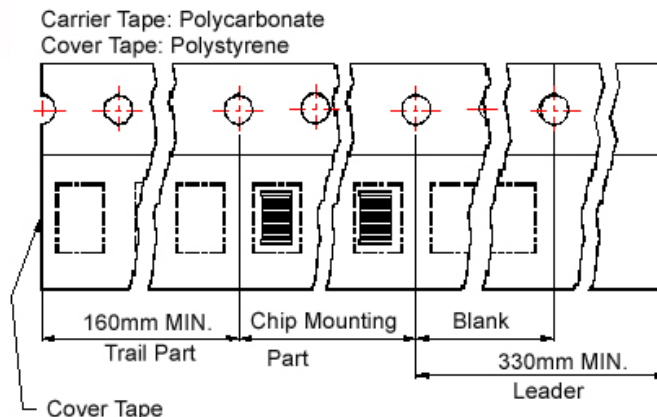


## Packaging Specifications

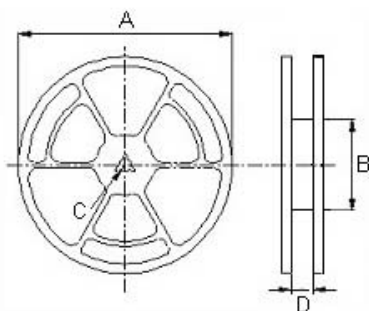
**Tape Dimensions**



**Tape Material**



**Reel Dimensions**



Dimensions in mm

| TYPE  | Tape Dimensions |      |      |      |      |    |    |    |    | Reel Dimensions |     |    |      | Quantity   |
|-------|-----------------|------|------|------|------|----|----|----|----|-----------------|-----|----|------|------------|
|       | A0              | B0   | K0   | D    | E    | W  | P  | P0 | P2 | A               | B   | C  | D    | PCS / REEL |
| 04012 | 4.6             | 5.0  | 1.5  | 1.55 | 1.75 | 12 | 8  | 4  | 2  | 330             | 100 | 13 | 13.4 | 2000       |
| 04015 | 4.4             | 4.9  | 1.8  | 1.55 | 1.75 | 12 | 8  | 4  | 2  | 330             | 100 | 13 | 13.4 | 2000       |
| 04020 | 4.3             | 4.9  | 2.4  | 1.55 | 1.75 | 12 | 8  | 4  | 2  | 330             | 100 | 13 | 13.4 | 2000       |
| 05012 | 5.9             | 6.2  | 1.5  | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 330             | 100 | 13 | 16.0 | 1000       |
| 05015 | 5.7             | 6.1  | 1.9  | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 330             | 100 | 13 | 16.0 | 1000       |
| 05018 | 5.9             | 6.2  | 2.2  | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 330             | 100 | 13 | 16.0 | 1000       |
| 05020 | 5.7             | 5.9  | 2.4  | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 330             | 100 | 13 | 16.0 | 1000       |
| 05030 | 5.9             | 6.2  | 3.4  | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 330             | 100 | 13 | 16.0 | 1000       |
| 06012 | 6.9             | 7.6  | 1.6  | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 330             | 100 | 13 | 16.0 | 1000       |
| 06015 | 6.9             | 7.6  | 1.9  | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 330             | 100 | 13 | 16.0 | 1000       |
| 06018 | 6.9             | 7.6  | 2.2  | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 330             | 100 | 13 | 16.0 | 1000       |
| 06024 | 6.9             | 7.6  | 2.9  | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 330             | 100 | 13 | 16.0 | 1000       |
| 06030 | 6.9             | 7.6  | 3.4  | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 330             | 100 | 13 | 16.0 | 1000       |
| 06050 | 6.9             | 7.6  | 5.4  | 1.55 | 1.75 | 16 | 12 | 4  | 2  | 330             | 100 | 13 | 16.0 | 500        |
| 10030 | 10.6            | 11.7 | 3.25 | 1.55 | 1.75 | 24 | 16 | 4  | 2  | 330             | 100 | 13 | 24.4 | 500        |
| 10040 | 10.6            | 11.7 | 4.25 | 1.55 | 1.75 | 24 | 16 | 4  | 2  | 330             | 100 | 13 | 24.4 | 500        |
| 12050 | 13              | 14   | 5.25 | 1.55 | 1.75 | 24 | 16 | 4  | 2  | 330             | 100 | 13 | 24.4 | 500        |
| 12060 | 13              | 14   | 6.25 | 1.55 | 1.75 | 24 | 16 | 4  | 2  | 330             | 100 | 13 | 24.4 | 500        |

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