

## Power Inductor ADCC Series

Automotive  
AEC-Q200

RoHS Compliant  
Halogen Free  
REACH Compliant



Power  
Circuit

Shield

Wire  
Wound

Metal

Ultra  
High  
Current

### Part Numbering

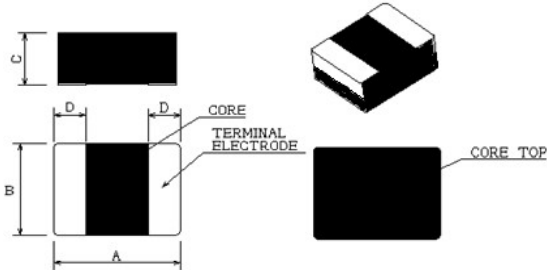
| A     | DCC         | 00           | 201612               | 1R0             | M         | C1            |
|-------|-------------|--------------|----------------------|-----------------|-----------|---------------|
| Grade | Series Name | Control Code | Dimensions Code (mm) | Inductance (uH) | Tolerance | Internal Code |
|       |             |              | 201612 2.0x1.6x1.2   | R15 0.15        | M ±20%    |               |
|       |             |              | 252012 2.5x2.0x1.2   | R24 0.24        |           |               |
|       |             |              |                      | R33 0.33        |           |               |
|       |             |              |                      | R47 0.47        |           |               |
|       |             |              |                      | 1R0 1.00        |           |               |
|       |             |              |                      | 1R5 1.50        |           |               |

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**Automotive**  
**AEC-Q200**

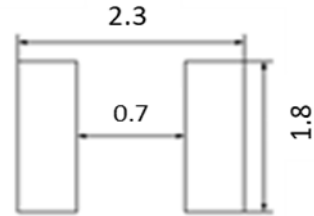
### ADCC00201612 Type

#### ■ Dimensions



unit:mm

#### ■ Recommended Land Pattern



unit:mm

#### ■ Electrical Characteristics

| Part No.           | Inductance<br>(uH) | Test Freq. | RDC(mΩ)<br>Max(Typ) | Isat(A)<br>Max(Typ) | Irms(A)<br>Max(Typ) | Tolerance<br>(±%) |
|--------------------|--------------------|------------|---------------------|---------------------|---------------------|-------------------|
| ADCC00201612R15MC1 | 0.15               | 2MHz       | 16(10)              | 7.7(8.6)            | 5.5(6.9)            | 20                |
| ADCC00201612R24MC1 | 0.24               | 2MHz       | 21(16)              | 5.9(6.5)            | 5.0(6.2)            | 20                |
| ADCC00201612R33MC1 | 0.33               | 2MHz       | 27(22)              | 5.2(5.8)            | 4.3(4.8)            | 20                |
| ADCC00201612R47MC1 | 0.47               | 2MHz       | 30(24)              | 4.5(5.0)            | 3.9(4.5)            | 20                |
| ADCC002016121R0MC1 | 1.00               | 2MHz       | 50(43)              | 3.3(3.7)            | 3.1(3.4)            | 20                |
| ADCC002016121R5MC1 | 1.50               | 2MHz       | 95(90)              | 2.5(2.8)            | 2.3(2.6)            | 20                |

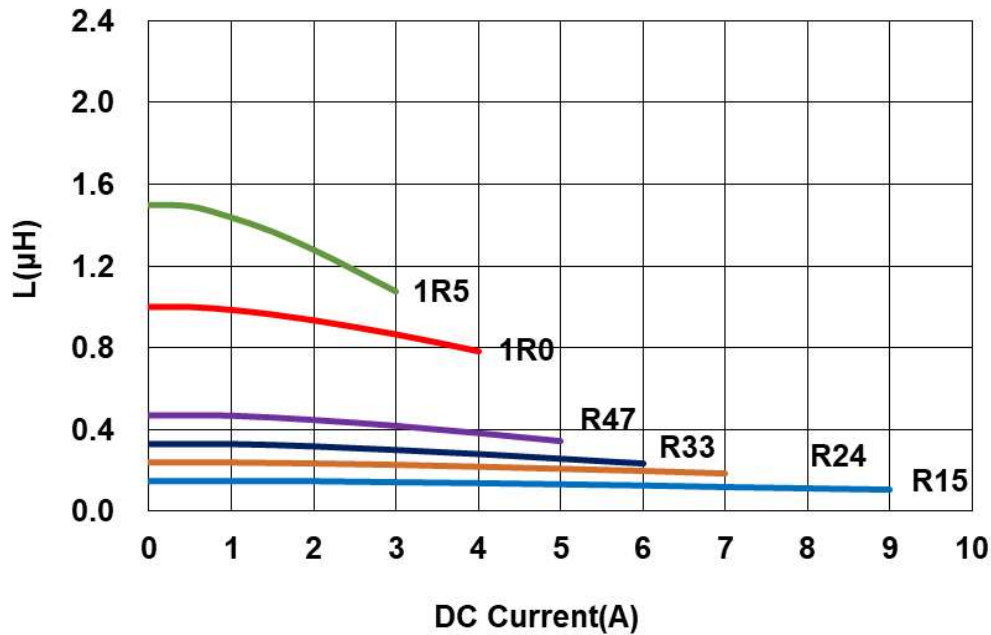
**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range: -40°C~125°C (Including self-temperature rise)
- Isat for Inductance drop 30% from its initial inductance value without applying current
- Irms for a 40°C temperature rise from 25°C ambient with applying current
- Rated current: Isat or Irms, whichever is smaller
- Absolute maximum voltage: 20VDC
- Measure Equipment:
  - L: WK 6500B/HP4285A (or equivalent), 2MHz
  - RDC: Chen Hwa 502BC/HP4338B (or equivalent)
  - Isat: Agilent E4980A+HP42841A (or equivalent)
  - Irms: Agilent 6641 system DC power supply (or equivalent)

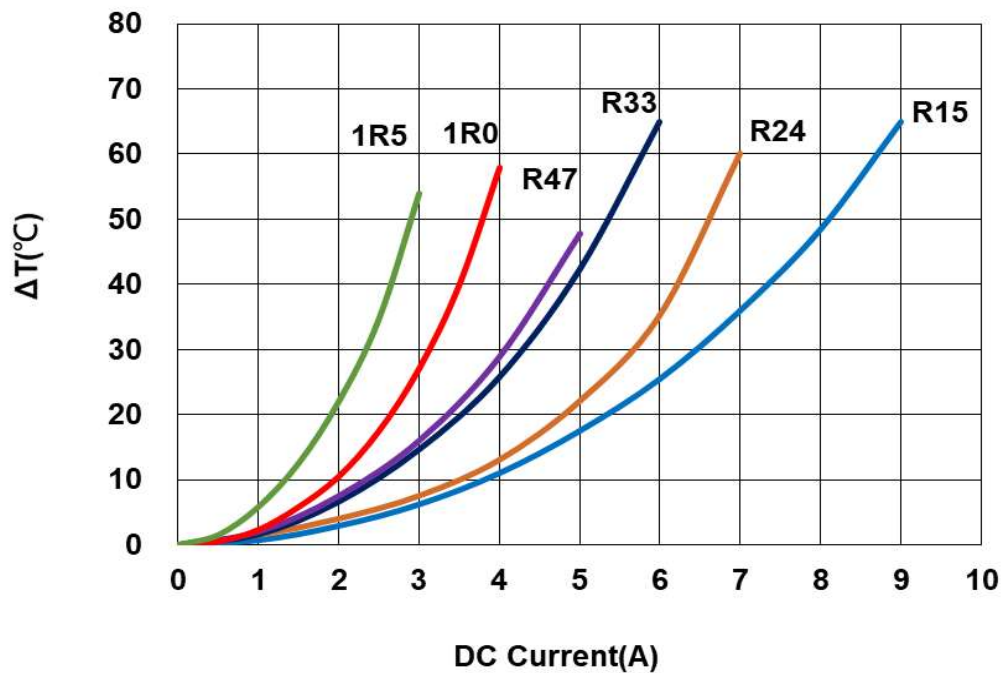
**ADCC00201612 Type**

**■ Characteristics Graph**

**Inductance vs.DC Current**



**Temperature Change vs. DC Current**

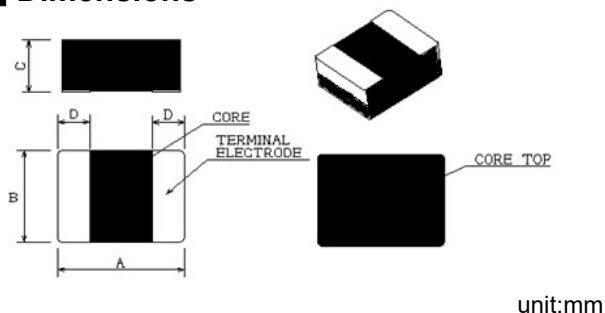


## Power Inductor ADCC Series

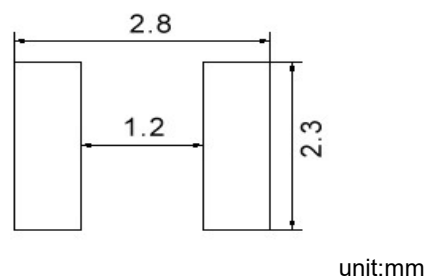
Automotive  
AEC-Q200

### ADCC00252012 Type

#### ■ Dimensions



#### ■ Recommended Land Pattern



#### ■ Electrical Characteristics

| Part No.           | Inductance<br>(uH) | Test Freq. | RDC(mΩ)<br>Max(Typ) | Isat(A)<br>Max(Typ) | Irms(A)<br>Max(Typ) | Tolerance<br>(±%) |
|--------------------|--------------------|------------|---------------------|---------------------|---------------------|-------------------|
| ADCC00252012R24MC1 | 0.24               | 2MHz       | 13(8)               | 8.0(9.0)            | 6.7(8.5)            | 20                |
| ADCC00252012R33MC1 | 0.33               | 2MHz       | 22(16)              | 6.2(7.0)            | 4.7(5.4)            | 20                |
| ADCC00252012R47MC1 | 0.47               | 2MHz       | 27(21)              | 5.2(6.1)            | 4.0(4.7)            | 20                |
| ADCC002520121R0MC1 | 1.00               | 2MHz       | 42(35)              | 3.7(4.3)            | 3.3(3.8)            | 20                |
| ADCC002520121R5MC1 | 1.50               | 2MHz       | 60(55)              | 3.4(3.8)            | 2.6(2.9)            | 20                |
| ADCC002520122R2MC1 | 2.20               | 2MHz       | 92(85)              | 2.8(3.1)            | 2.1(2.3)            | 20                |

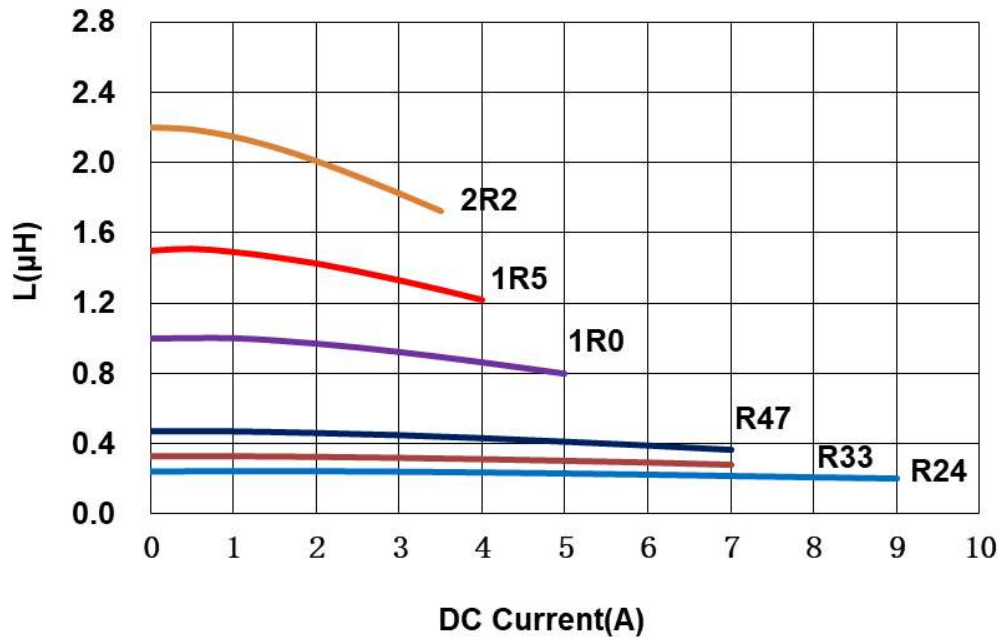
**Note: When ordering, please specify tolerance code. Tolerance: M=±20%**

- Operating temperature range: -40°C~125°C (Including self-temperature rise)
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  - Isat: Agilent E4980A+HP42841A (or equivalent)
  - Irms: Agilent 6641 system DC power supply (or equivalent)

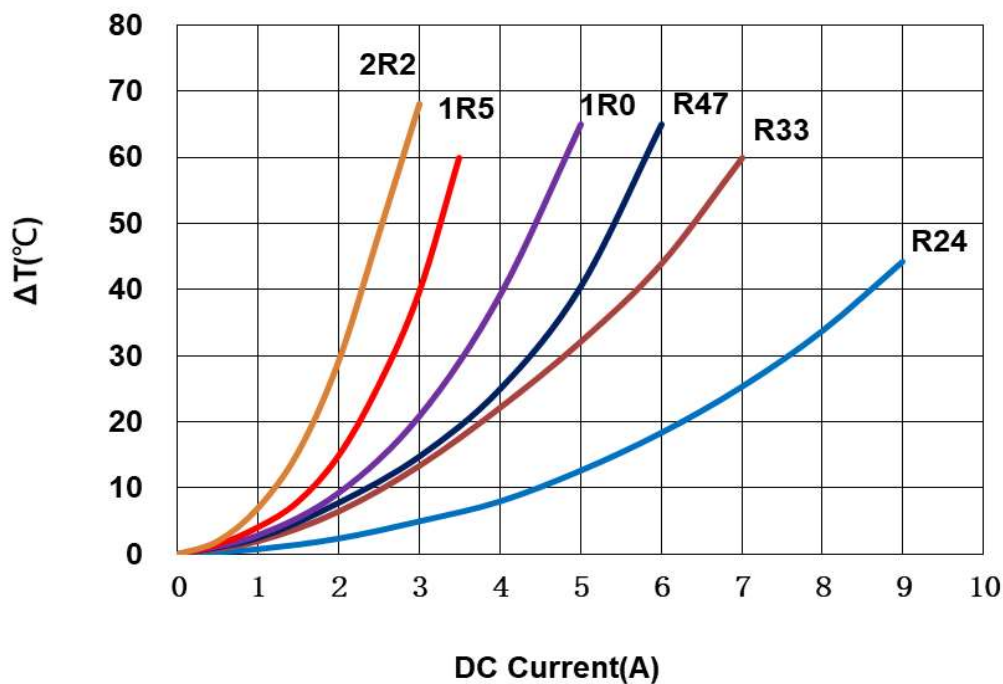
**ADCC00252012 Type**

**■ Characteristics Graph**

**Inductance vs.DC Current**



**Temperature Change vs. DC Current**

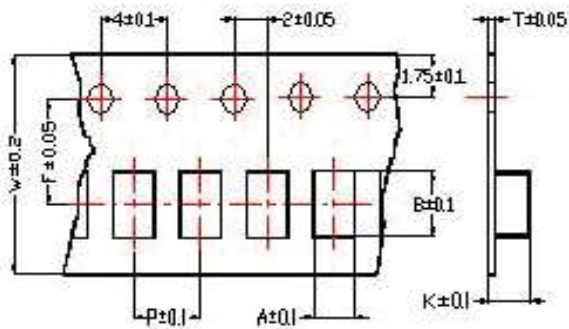


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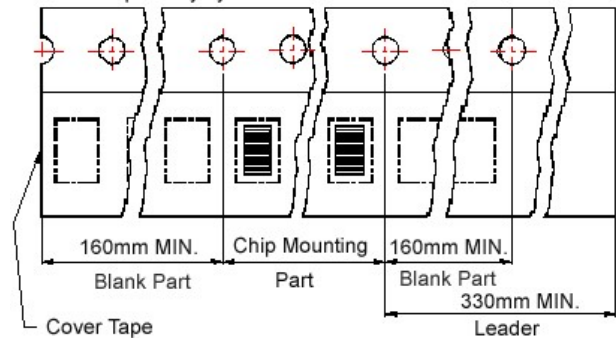
### ■ Packaging

#### Tape Dimensions

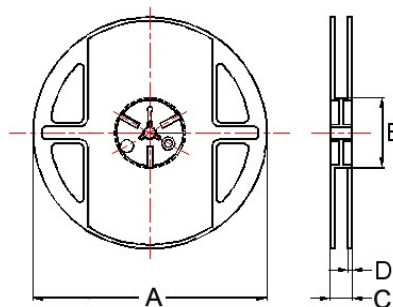


#### Tape Material

Carrier Tape: Polycarbonate  
Cover Tape: Polystyrene



#### Reel Dimensions



#### Dimensions in mm

| TYPE         | Tape Dimensions |      |      |   |   |     |      | Reel Dimensions |    |    |   | Quantity<br>PCS / Reel |
|--------------|-----------------|------|------|---|---|-----|------|-----------------|----|----|---|------------------------|
|              | A               | B    | T    | W | P | F   | K    | A               | B  | C  | D |                        |
| ADCC00201612 | 1.90            | 2.20 | 0.22 | 8 | 4 | 3.5 | 1.15 | 178             | 60 | 12 | 2 | 3000                   |
| ADCC00252012 | 2.30            | 2.80 | 0.22 | 8 | 4 | 3.5 | 1.35 | 178             | 60 | 12 | 2 | 3000                   |

# Mouser Electronics

Authorized Distributor

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