



## HIGH CURRENT POWER INDUCTORS / AMPI CN Type Series

### ● Features

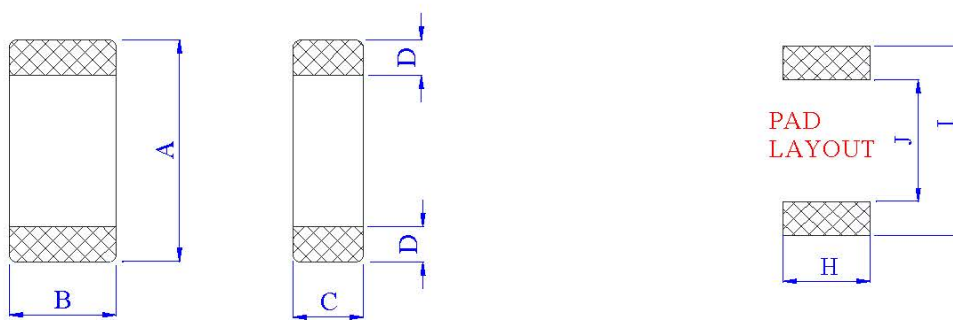
1. Monolithic, magnetically shielded
2. Compact high saturation current
3. Minimum height=1.0mm Max.

### ● Applications

1. Smartphone
2. Tablet PC
3. Hard Disk of ultrabook
4. LTE module
5. Portable device

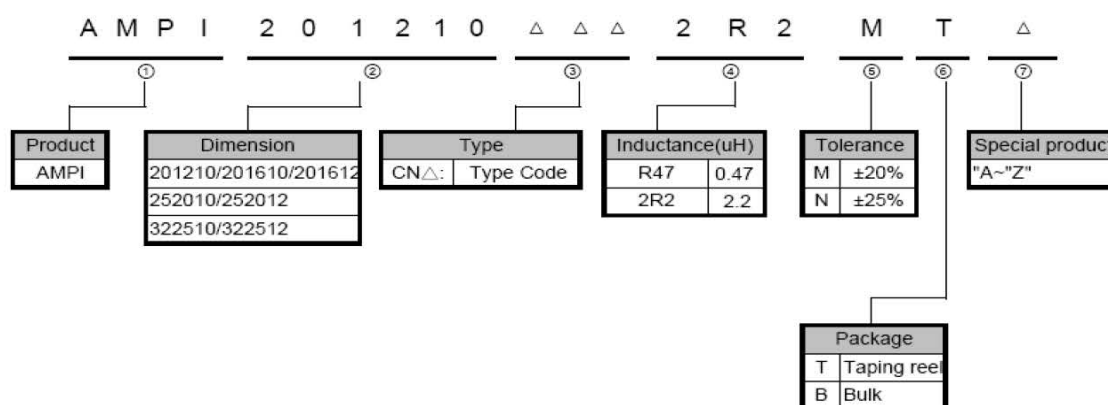


### ● Shape & Dimensions



| TYPE         | A (mm)    | B (mm)     | C (mm)   | D (mm)    | H (Ref.) | I (Ref.) | J (Ref.) |
|--------------|-----------|------------|----------|-----------|----------|----------|----------|
| AMPI201210CN | 2.0 ± 0.2 | 1.25 ± 0.2 | 1.0 MAX. | 0.5 ± 0.3 | 1.0~1.4  | 2.3~2.9  | 0.8~1.2  |
| AMPI201610CN | 2.0 ± 0.2 | 1.6 ± 0.2  | 1.0 MAX. | 0.5 ± 0.3 | 1.6      | 2.00     | 0.9      |
| AMPI201612CN | 2.0 ± 0.2 | 1.6 ± 0.2  | 1.2 MAX. | 0.5 ± 0.3 | 1.6      | 2.00     | 0.9      |
| AMPI252010CN | 2.5 ± 0.2 | 2.0 ± 0.2  | 1.0 MAX. | 0.6 ± 0.2 | 2.0      | 2.80     | 1.2      |
| AMPI252012CN | 2.5 ± 0.2 | 2.0 ± 0.2  | 1.2 MAX. | 0.6 ± 0.2 | 2.0      | 2.80     | 1.2      |
| AMPI322510CN | 3.2 ± 0.3 | 2.5 ± 0.3  | 1.0 MAX. | 0.5 ± 0.2 | 2.5      | 3.20     | 1.7      |
| AMPI322512CN | 3.2 ± 0.3 | 2.5 ± 0.3  | 1.2 MAX. | 0.5 ± 0.2 | 2.5      | 3.20     | 1.7      |

### ■ PRODUCT IDENTIFICATION



## ◆ AMPI201210CN Series Specification :

| Part Number       | Inductance (uH) | Test Freq. (MHz) | DCR (mΩ) Max. | Saturation Current (A) Max. | Temp. Rise current (A) Max. |
|-------------------|-----------------|------------------|---------------|-----------------------------|-----------------------------|
| AMPI201210CNR33□T | 0.33            | 2                | 75            | 3.6                         | 2.4                         |
| AMPI201210CNR47□T | 0.47            | 2                | 80            | 3.2                         | 2.2                         |
| AMPI201210CNR68□T | 0.68            | 2                | 105           | 3.0                         | 2.0                         |
| AMPI201210CN1R0□T | 1.0             | 2                | 155           | 2.0                         | 1.6                         |

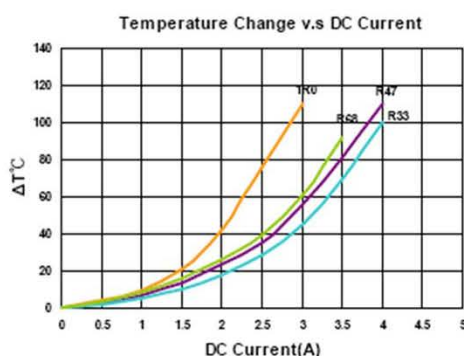
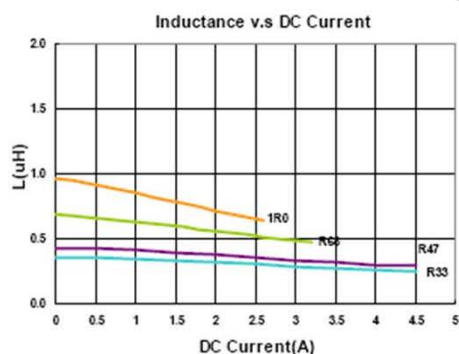
### NOTE :

\* The operating temperature range is -40°C to +125°C(Including self-temperature rise)

\* □ Tolerance M : ±20%

\*Isat:For Inductance drop 30% from its value without current.

\*Irms:The value of D.C current when the temperature rise is  $\Delta T \leq 40^\circ\text{C}$ .(Ta=25°C)



## ◆ AMPI201610CN Series Specification :

| Part Number       | Inductance (uH) | Test Freq. (MHz) | DCR (mΩ) Max. | Saturation Current (A) Max. | Temp. Rise current (A) Max. |
|-------------------|-----------------|------------------|---------------|-----------------------------|-----------------------------|
| AMPI201610CNR24□T | 0.24            | 2                | 40            | 4.2                         | 4.0                         |
| AMPI201610CNR33□T | 0.33            | 2                | 48            | 4.0                         | 3.5                         |
| AMPI201610CNR47□T | 0.47            | 2                | 54            | 3.2                         | 3.0                         |
| AMPI201610CNR56□T | 0.56            | 2                | 59            | 2.8                         | 2.8                         |
| AMPI201610CNR68□T | 0.68            | 2                | 72            | 2.7                         | 2.4                         |
| AMPI201610CN1R0□T | 1.0             | 2                | 96            | 2.2                         | 2.0                         |
| AMPI201610CN1R5□T | 1.5             | 2                | 150           | 2.1                         | 1.6                         |
| AMPI201610CN2R2□T | 2.2             | 2                | 204           | 2.0                         | 1.3                         |

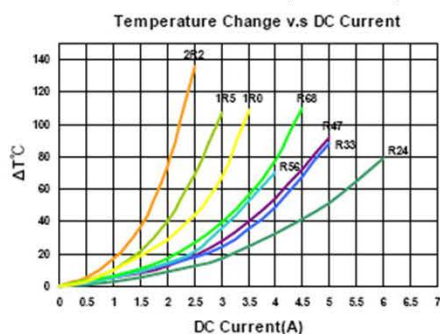
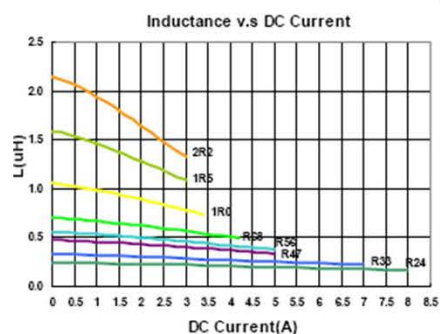
### NOTE :

\* The operating temperature range is -40°C to +125°C(Including self-temperature rise)

\* □ Tolerance M : ±20%

\*Isat:For Inductance drop 30% from its value without current.

\*Irms:The value of D.C current when the temperature rise is  $\Delta T \leq 40^\circ\text{C}$ .(Ta=25°C)



## ◆ AMPI201612CN Series Specification :

| Part Number       | Inductance<br>( $\mu\text{H}$ ) | Test Freq.<br>(MHz) | DCR<br>( $\text{m}\Omega$ ) Max. | Saturation Current<br>(A) Max. | Temp. Rise current<br>(A) Max. |
|-------------------|---------------------------------|---------------------|----------------------------------|--------------------------------|--------------------------------|
| AMPI201612CNR24□T | 0.24                            | 2                   | 35                               | 5.5                            | 4.2                            |
| AMPI201612CNR47□T | 0.47                            | 2                   | 52                               | 3.8                            | 3.2                            |
| AMPI201612CNR68□T | 0.68                            | 2                   | 70                               | 3.3                            | 2.6                            |
| AMPI201612CN1R0□T | 1.0                             | 2                   | 82                               | 3.1                            | 2.3                            |
| AMPI201612CN1R5□T | 1.5                             | 2                   | 120                              | 2.6                            | 2.2                            |
| AMPI201612CN2R2□T | 2.2                             | 2                   | 195                              | 2.0                            | 1.3                            |

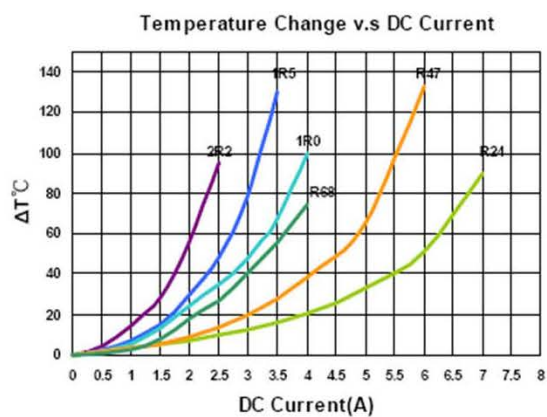
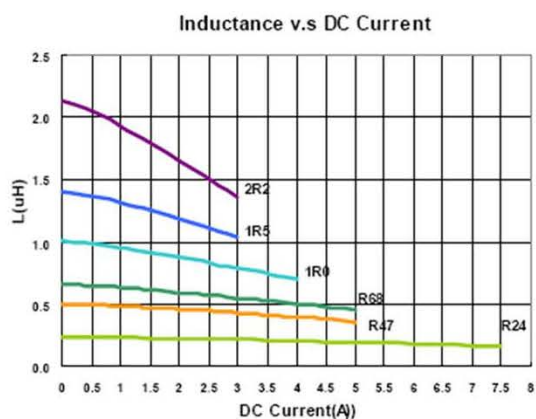
### NOTE :

\* The operating temperature range is  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  (Including self-temperature rise)

\* □ Tolerance M :  $\pm 20\%$

\* Isat: For Inductance drop 30% from its value without current.

\* Irms: The value of D.C current when the temperature rise is  $\Delta T \leq 40^{\circ}\text{C}$ . ( $T_a = 25^{\circ}\text{C}$ )



## ◆ AMPI252010CN Series Specification :

| Part Number       | Inductance<br>( $\mu$ H) | Test Freq.<br>(MHz) | DCR<br>(m $\Omega$ ) Max. | Saturation Current<br>(A) Max. | Temp. Rise current<br>(A) Max. |
|-------------------|--------------------------|---------------------|---------------------------|--------------------------------|--------------------------------|
| AMPI252010CNR24□T | 0.24                     | 2                   | 40                        | 7.5                            | 4.5                            |
| AMPI252010CNR47□T | 0.47                     | 2                   | 46                        | 5.2                            | 3.1                            |
| AMPI252010CNR68□T | 0.68                     | 2                   | 65                        | 3.8                            | 2.9                            |
| AMPI252010CN1R0□T | 1.0                      | 2                   | 78                        | 3.4                            | 2.5                            |
| AMPI252010CN1R5□T | 1.5                      | 2                   | 105                       | 3.2                            | 2.2                            |
| AMPI252010CN2R2□T | 2.2                      | 2                   | 156                       | 2.6                            | 1.4                            |

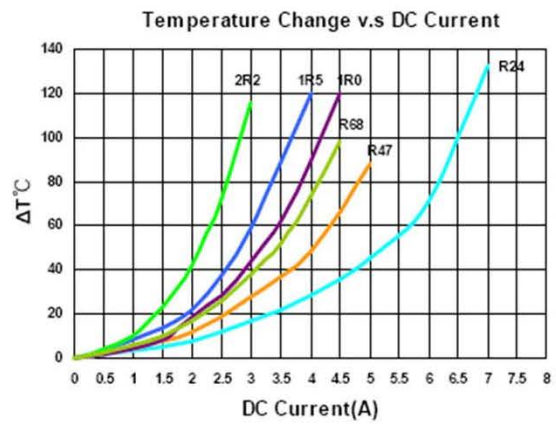
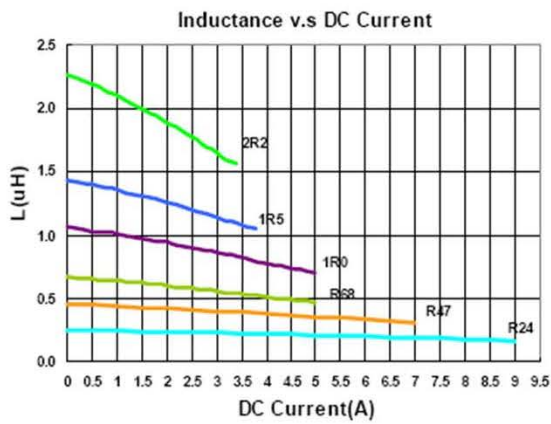
### NOTE :

\* The operating temperature range is -40°C to +125°C(Including self-temperature rise)

\* □ Tolerance M :  $\pm 20\%$

\* Isat:For Inductance drop 30% from its value without current.

\* Irms:The value of D.C current when the temperature rise is  $\Delta T \leq 40^\circ\text{C}$ .(Ta=25°C)



## ◆ AMPI252012CN Series Specification :

| Part Number       | Inductance<br>( $\mu$ H) | Test Freq.<br>(MHz) | DCR<br>(m $\Omega$ ) Max. | Saturation Current<br>(A) Max. | Temp. Rise current<br>(A) Max. |
|-------------------|--------------------------|---------------------|---------------------------|--------------------------------|--------------------------------|
| AMPI252012CNR33□T | 0.33                     | 2                   | 35                        | 6.8                            | 4.0                            |
| AMPI252012CNR47□T | 0.47                     | 2                   | 39                        | 6.2                            | 3.7                            |
| AMPI252012CNR68□T | 0.68                     | 2                   | 46                        | 5.5                            | 3.3                            |
| AMPI252012CN1R0□T | 1.0                      | 2                   | 59                        | 4.0                            | 3.0                            |
| AMPI252012CN1R5□T | 1.5                      | 2                   | 70                        | 3.4                            | 2.5                            |
| AMPI252012CN2R2□T | 2.2                      | 2                   | 115                       | 3.3                            | 2.0                            |
| AMPI252012CN3R3□T | 3.3                      | 2                   | 158                       | 2.5                            | 1.8                            |
| AMPI252012CN4R7□T | 4.7                      | 2                   | 240                       | 2.1                            | 1.7                            |

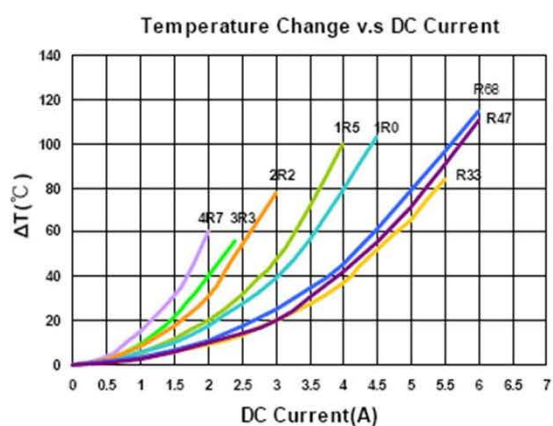
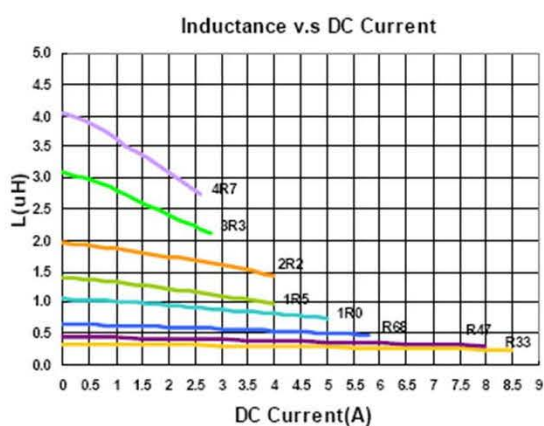
### NOTE :

\* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

\* □ Tolerance M :  $\pm 20\%$

\* Isat: For Inductance drop 30% from its value without current.

\* Irms: The value of D.C current when the temperature rise is  $\Delta T \leq 40^\circ\text{C}$  .(Ta=25°C)





## ◆ AMPI322510CN Series Specification :

| Part Number       | Inductance<br>( $\mu\text{H}$ ) | Test Freq.<br>(MHz) | DCR<br>( $\text{m}\Omega$ ) Max. | Saturation Current<br>(A) Max. | Temp. Rise current<br>(A) Max. |
|-------------------|---------------------------------|---------------------|----------------------------------|--------------------------------|--------------------------------|
| AMPI322510CNR47□T | 0.47                            | 2                   | 37                               | 5.8                            | 3.6                            |
| AMPI322510CN1R0□T | 1.0                             | 2                   | 56                               | 4.0                            | 3.0                            |
| AMPI322510CN1R5□T | 1.5                             | 2                   | 75                               | 3.4                            | 2.6                            |
| AMPI322510CN2R2□T | 2.2                             | 2                   | 108                              | 2.7                            | 2.2                            |

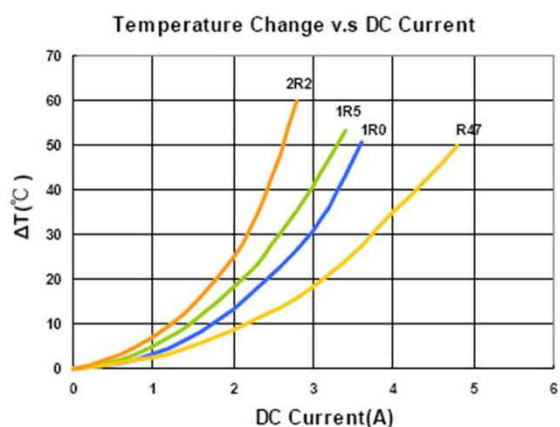
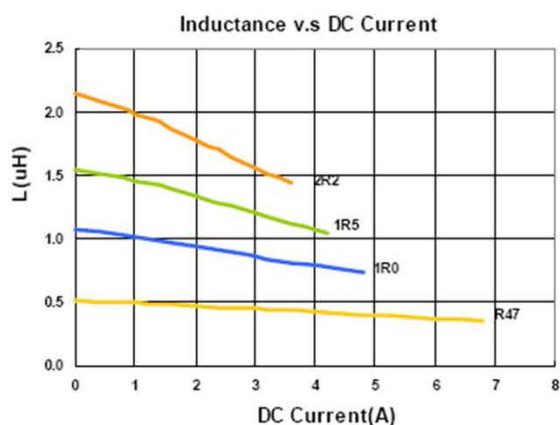
### NOTE :

\* The operating temperature range is  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  (Including self-temperature rise)

\* □ Tolerance M :  $\pm 20\%$

\* Isat: For Inductance drop 30% from its value without current.

\* Irms: The value of D.C current when the temperature rise is  $\Delta T \leq 40^{\circ}\text{C}$  .( $T_a = 25^{\circ}\text{C}$ )



## ◆ AMPI322512CN Series Specification :

| Part Number       | Inductance<br>( $\mu$ H) | Test Freq.<br>(MHz) | DCR<br>(m $\Omega$ ) Max. | Saturation Current<br>(A) Max. | Temp. Rise current<br>(A) Max. |
|-------------------|--------------------------|---------------------|---------------------------|--------------------------------|--------------------------------|
| AMPI322512CNR47□T | 0.47                     | 2                   | 27                        | 8.0                            | 5.0                            |
| AMPI322512CN1R0□T | 1.0                      | 2                   | 42                        | 5.8                            | 3.8                            |
| AMPI322512CN2R2□T | 2.2                      | 2                   | 85                        | 3.6                            | 2.4                            |

### NOTE :

\* The operating temperature range is -40°C to +125°C(Including self-temperature rise)

\* □ Tolerance M :  $\pm 20\%$

\* Isat: For Inductance drop 30% from its value without current.

\* Irms: The value of D.C current when the temperature rise is  $\Delta T \leq 40^\circ\text{C}$ .(Ta=25°C)

