



## PRODUCT IDENTIFICATION

|             |             |                |          |                   |             |
|-------------|-------------|----------------|----------|-------------------|-------------|
| <b>JRPI</b> | <b>0605</b> | <b>V</b>       | <b>-</b> | <b>330</b>        | <b>M</b>    |
|             |             |                |          |                   |             |
| <b>Type</b> | <b>Size</b> | <b>Vehicle</b> |          | <b>Inductance</b> | <b>Tol.</b> |

## FEATURES

1. Carbonyl Powder.
2. Compact design.
3. High current , low DCR , high efficiency.
4. Very low acoustic noise and very low leakage flux noise.
5. High reliability.
6. 100% Lead(Pb)-Free and RoHS compliant.
7. High reliability -Reliability test complied to AEC-Q200.

## APPLICATIONS

Note PC power system , incl. IMVP-6  
DC/DC converter .

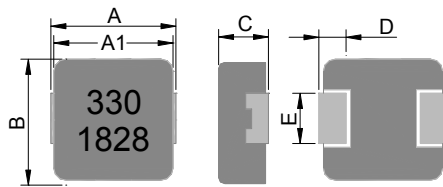
## Marking and Date code:

Marking ex:33(μH) → 330

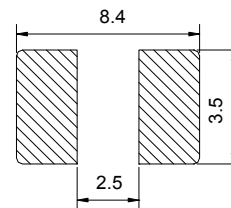
Date code

18 28 → year and weekly

## DIMENSIONS (mm)



## Recommend PC Board Pattern



Note:

1. The above PCB layout reference only.
2. Recommend solder paste thickness at 0.15mm and above.

印字:黑色330及D/C 1828 (18年,28週期)(依實際生產日期而定)

| Part No.   | Size (mm) |           |           |           |           |           |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|
|            | A         | A1        | B         | C         | D         | E         |
| JRPI 0605V | 7.3 ± 0.3 | 6.7 ± 0.3 | 6.6 ± 0.3 | 4.8 ± 0.2 | 1.8 ± 0.3 | 3.0 ± 0.3 |

## SERIES LIST

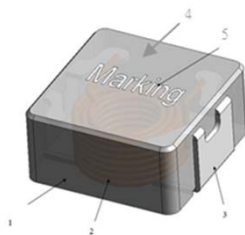
| No. | Part No.        | L<br>(μH) | TOL.<br>(%) | RDC (mΩ) |      | I sat (A)<br>Typ. | I rms (A)<br>Typ. |
|-----|-----------------|-----------|-------------|----------|------|-------------------|-------------------|
|     |                 |           |             | Typ.     | Max. |                   |                   |
| 1   | JRPI 0605V-R22M | 0.22      | ±20         | 1.6      | 1.9  | 35.0              | 25.0              |
| 2   | JRPI 0605V-R33M | 0.33      | ±20         | 2.5      | 3.0  | 32.0              | 25.0              |
| 3   | JRPI 0605V-R40M | 0.40      | ±20         | 3.1      | 3.7  | 31.0              | 23.0              |
| 4   | JRPI 0605V-R47M | 0.47      | ±20         | 3.5      | 3.9  | 30.0              | 22.0              |
| 5   | JRPI 0605V-R56M | 0.56      | ±20         | 3.6      | 4.2  | 27.0              | 20.0              |
| 6   | JRPI 0605V-R60M | 0.60      | ±20         | 3.8      | 4.3  | 25.0              | 19.0              |
| 7   | JRPI 0605V-R68M | 0.68      | ±20         | 4.0      | 4.5  | 24.0              | 18.0              |
| 8   | JRPI 0605V-R82M | 0.82      | ±20         | 4.6      | 4.9  | 22.0              | 16.5              |
| 9   | JRPI 0605V-1R0M | 1.00      | ±20         | 6.1      | 6.5  | 20.0              | 15.0              |
| 10  | JRPI 0605V-1R2M | 1.20      | ±20         | 6.7      | 7.5  | 18.0              | 14.0              |
| 11  | JRPI 0605V-1R5M | 1.50      | ±20         | 8.6      | 9.0  | 16.5              | 12.0              |
| 12  | JRPI 0605V-1R8M | 1.80      | ±20         | 9.5      | 11.0 | 15.0              | 12.0              |
| 13  | JRPI 0605V-2R2M | 2.20      | ±20         | 11.2     | 12.0 | 14.0              | 10.0              |
| 14  | JRPI 0605V-3R3M | 3.30      | ±20         | 19.0     | 20.9 | 12.0              | 8.0               |
| 15  | JRPI 0605V-4R7M | 4.70      | ±20         | 28.0     | 30.8 | 10.0              | 6.5               |
| 16  | JRPI 0605V-5R6M | 5.60      | ±20         | 43.5     | 49.0 | 9.0               | 6.0               |

| No. | Part No.        | L    | TOL. | RDC (mΩ) |      | I sat (A) | I rms (A) |
|-----|-----------------|------|------|----------|------|-----------|-----------|
|     |                 | (μH) | (%)  | Typ.     | Max. | Typ.      | Typ.      |
| 17  | JRPI 0605V-6R8M | 6.80 | ±20  | 46.0     | 51.5 | 8.5       | 5.5       |
| 18  | JRPI 0605V-8R2M | 8.20 | ±20  | 56.0     | 63.0 | 8.0       | 5.0       |
| 19  | JRPI 0605V-100M | 10.0 | ±20  | 60.0     | 69.0 | 7.5       | 4.0       |
| 20  | JRPI 0605V-150M | 15.0 | ±20  | 81.0     | 92.0 | 6.0       | 3.5       |
| 21  | JRPI 0605V-220M | 22.0 | ±20  | 140      | 170  | 5.5       | 2.5       |
| 22  | JRPI 0605V-470M | 47.0 | ±20  | 290      | 330  | 2.7       | 1.9       |
| 23  | JRPI 0605V-560M | 56.0 | ±20  | 342      | 396  | 2.1       | 1.6       |
| 24  | JRPI 0605V-680M | 68.0 | ±20  | 386      | 445  | 2.0       | 1.2       |

Note:

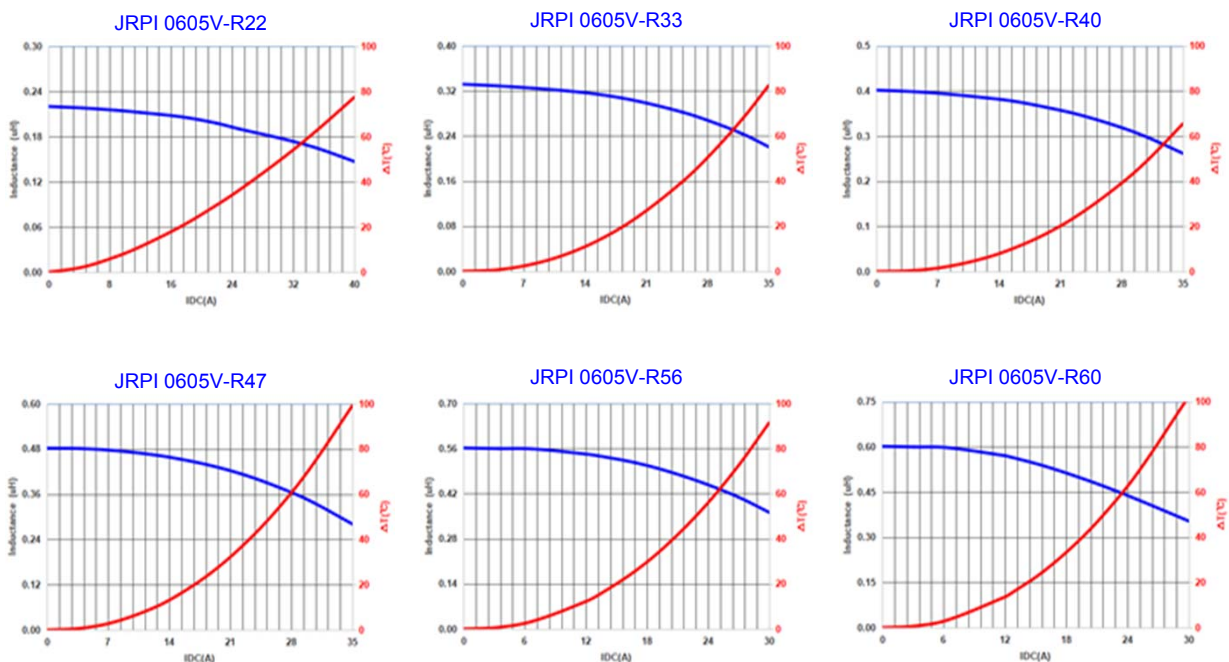
1. Test Frequency: 100KHz /1V
2. All test data referenced to 25°C ambient
3. Saturation Current (Isat) will cause L0 to drop approximately 30%.
4. Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40°C
5. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions.  
Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
6. Special inquiries besides the above common used types can be met on your requirement.

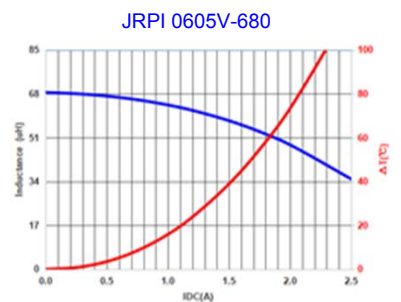
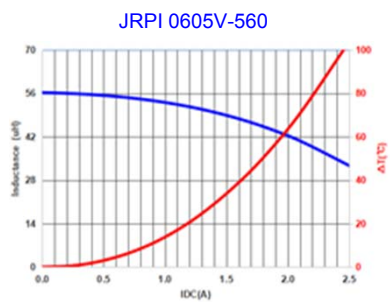
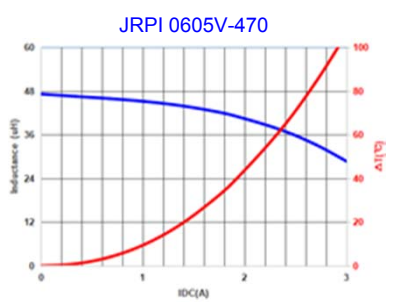
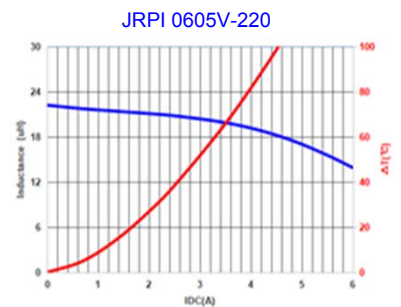
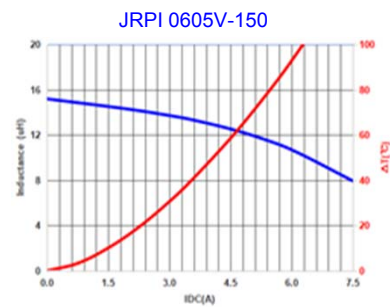
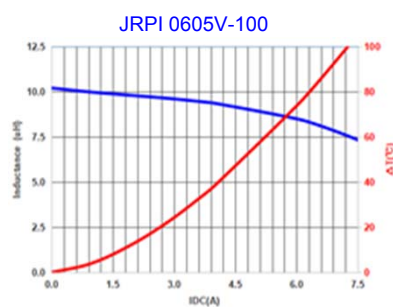
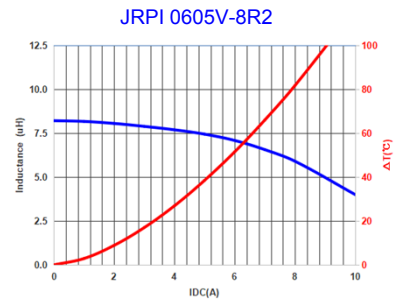
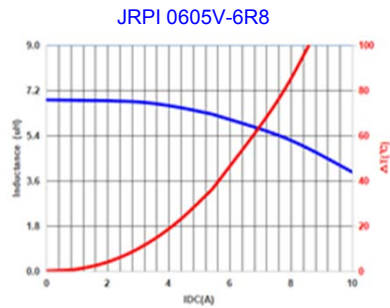
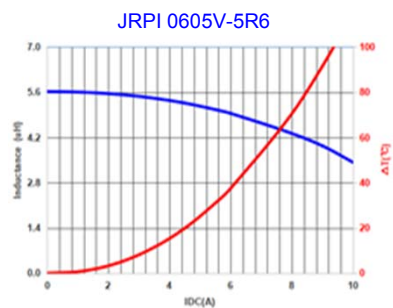
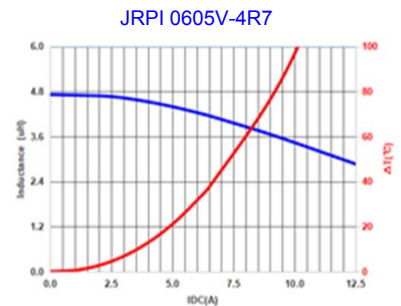
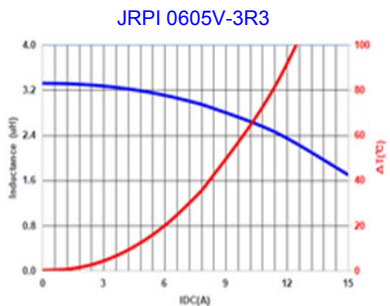
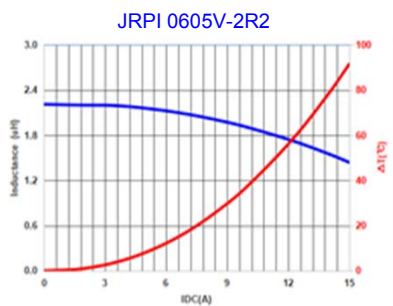
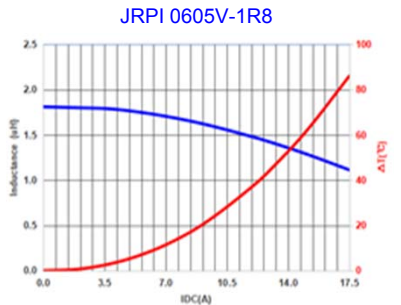
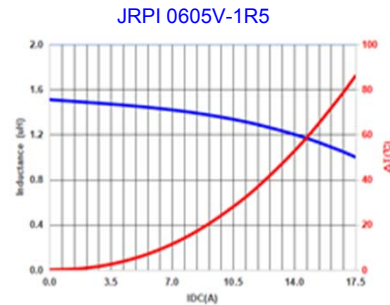
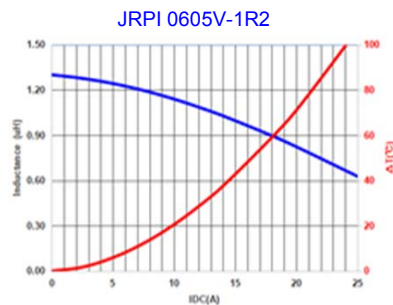
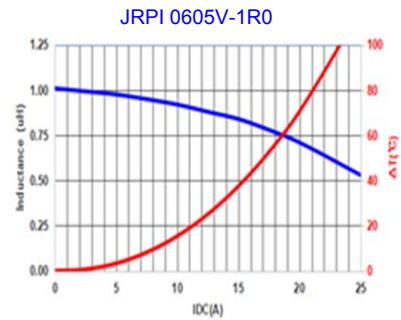
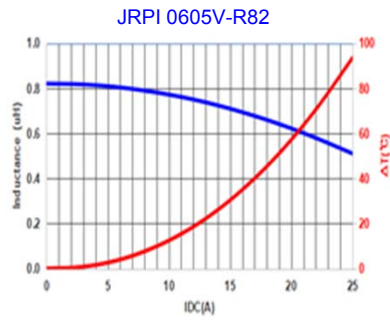
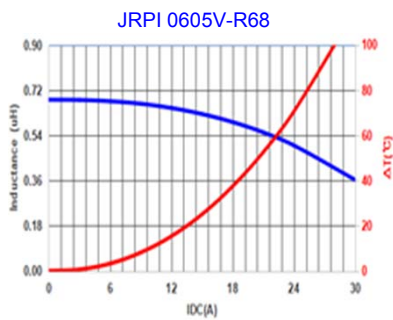
## Materials



| NO | Items | Materials                            |
|----|-------|--------------------------------------|
| 1  | Core  | Carbonyl Powder                      |
| 2  | Wire  | Polyester Wire or equivalent         |
| 3  | Clip  | 100% Pb free solder(Ni+Sn---Plating) |
| 4  | paint | Epoxy resin                          |
| 5  | Ink   | Halogen-free ketone                  |

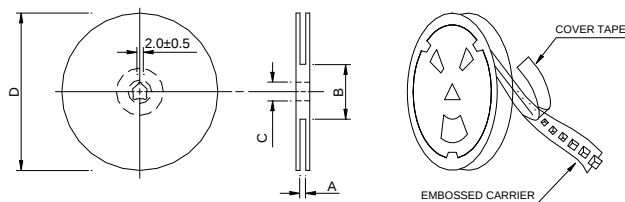
## TYPICAL PERFORMANCE CURVES





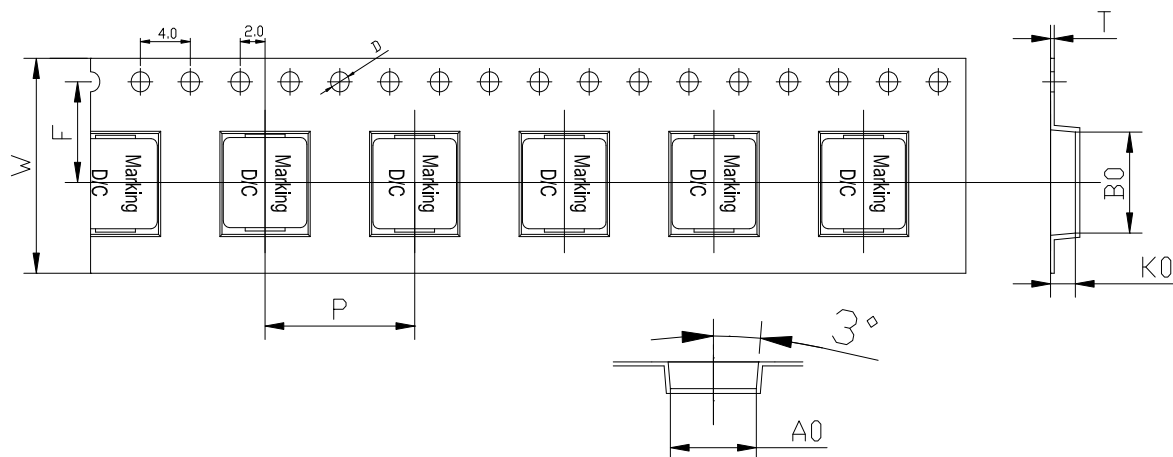
## Packaging Information

### • Reel Dimension



| Type     | A(mm)     | B(mm) | C(mm)       | D(mm) |
|----------|-----------|-------|-------------|-------|
| 13"x16mm | 16.4+2/-0 | 100±2 | 13+0.5/-0.2 | 330   |

### • Tape Dimension

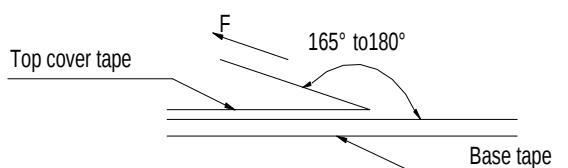


| Ao(mm)  | Bo(mm)  | Ko(mm)  | P(mm)    | W(mm)  | F(mm)   | t(mm)     | D(mm)   |
|---------|---------|---------|----------|--------|---------|-----------|---------|
| 7.0±0.1 | 7.7±0.1 | 5.3±0.1 | 12.0±0.1 | 16±0.3 | 7.5±0.1 | 0.35±0.05 | 1.5±0.1 |

### • Packaging Quantity

| Size       | Reel | Inner box | Carton |
|------------|------|-----------|--------|
| JRPI 0605V | 800  | 1600      | 6400   |

### • Tearing Off Force



The force for tearing off cover tape is 10 to 130 grams in the arrow direction under the following conditions (referenced ANSI/EIA-481-C-2003 of 4.11 standard)

| Room Temp. (°C) | Room Humidity (%) | Room atm (hPa) | Tearing Speed mm/min |
|-----------------|-------------------|----------------|----------------------|
| 5~35            | 45~85             | 860~1060       | 300                  |

## ■ Application Notice

- Storage Conditions(component level)

To maintain the solderability of terminal electrodes:

1. Products meet IPC/JEDEC J-STD-020D standard-MSL, level 1.
2. Temperature and humidity conditions: Less than 40°C and 60% RH.
3. Recommended products should be used within 12 months form the time of delivery.
4. The packaging material should be kept where no chlorine or sulfur exists in the air.

- Transportation

1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
3. Bulk handling should ensure that abrasion and mechanical shock are minimized.