SMD POWER COIL-*JRPI 1205V*

PRODUCT IDENTIFICATION

JRPI 1205 V – 4R7 M

Type | Size | Vehicle | Inductance | Tol.

■ 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.

■ Marking and Date code:

Marking ex:4.7(μH) → 4R7

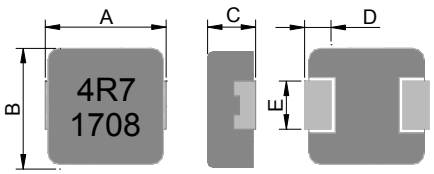
Date code

17 08 →year and weekly

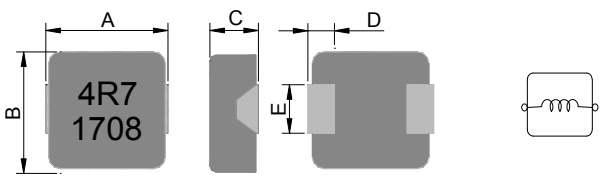
■ APPLICATIONS

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

■ DIMENSIONS (mm)



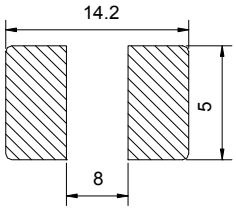
leadframe



non-leadframe

印字:黑色4R7及D/C 1708 (17年,08週期)(依實際生產日期而定)

Recommend PC Board Pattern



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

Part No.	Size (mm)				
	A	B	C	D	E
JRPI 1205V	13.5 ± 0.5	12.5 ± 0.3	4.8 ± 0.2	2.3 ± 0.3	4.7 ± 0.3

SERIES LIST

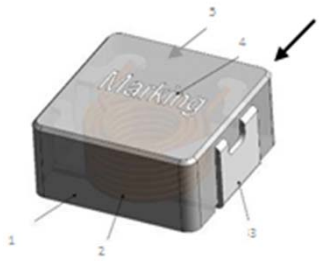
No.	Part No.	L (μH)	Test Frequency (Hz)	RDC (mΩ) Typ.	RDC (mΩ) Max.	Isat (A) Typ.	Irms (A) Typ.	Type
1	JRPI 1205V-R20M	0.20	100K/1V	0.45	0.55	110.0	52.0	non-leadframe
2	JRPI 1205V-R22M	0.22	100K/1V	0.50	0.70	110.0	52.0	non-leadframe
3	JRPI 1205V-R33M	0.33	100K/1V	0.70	0.90	80.0	42.0	non-leadframe
4	JRPI 1205V-R36M	0.36	100K/1V	0.75	0.95	75.0	42.0	non-leadframe
5	JRPI 1205V-R39M	0.39	100K/1V	0.78	0.95	70.0	42.0	non-leadframe
6	JRPI 1205V-R47M	0.47	100K/1V	0.86	1.10	65.0	38.0	non-leadframe
7	JRPI 1205V-R50M	0.50	100K/1V	0.90	1.30	60.0	37.0	non-leadframe
8	JRPI 1205V-R56M	0.56	100K/1V	1.00	1.50	55.0	36.0	non-leadframe
9	JRPI 1205V-R68M	0.68	100K/1V	1.40	1.70	54.0	34.0	non-leadframe
10	JRPI 1205V-R82M	0.82	100K/1V	1.70	2.10	52.0	31.0	non-leadframe
11	JRPI 1205V-1R0M	1.00	100K/1V	1.85	2.50	50.0	29.0	non-leadframe
12	JRPI 1205V-1R2M	1.20	100K/1V	2.50	3.00	49.0	28.0	non-leadframe
13	JRPI 1205V-1R5M	1.50	100K/1V	2.80	3.30	48.0	27.0	non-leadframe
14	JRPI 1205V-1R8M	1.80	100K/1V	4.00	4.90	40.0	21.0	leadframe
15	JRPI 1205V-2R2M	2.20	100K/1V	4.20	5.50	32.0	20.0	leadframe
16	JRPI 1205V-2R7M	2.70	100K/1V	4.70	6.70	32.0	17.0	leadframe
17	JRPI 1205V-3R3M	3.30	100K/1V	6.80	9.20	32.0	15.0	leadframe
18	JRPI 1205V-4R7M	4.70	100K/1V	11.4	15.0	27.0	12.0	leadframe
19	JRPI 1205V-5R6M	5.60	100K/1V	12.3	16.5	22.0	11.5	leadframe
20	JRPI 1205V-6R0M	6.00	100K/1V	13.0	16.5	21.5	11.5	leadframe
21	JRPI 1205V-6R8M	6.80	100K/1V	14.5	18.5	21.0	11.0	leadframe
22	JRPI 1205V-8R2M	8.20	100K/1V	16.8	22.5	18.0	9.5	leadframe
23	JRPI 1205V-100M	10.0	100K/1V	21.4	25.5	16.0	9.0	leadframe
24	JRPI 1205V-150M	15.0	100K/1V	32	38	13.0	8.2	leadframe
25	JRPI 1205V-180M	18.0	100K/1V	40	45	11.0	7.5	leadframe
26	JRPI 1205V-220M	22.0	100K/1V	50	58	10.0	6.5	leadframe
27	JRPI 1205V-330M	33.0	100K/1V	73	88	8.0	5.0	leadframe
28	JRPI 1205V-680M	68.0	100K/1V	135	162	5.5	3.5	leadframe
29	JRPI 1205V-820M	82.0	100K/1V	198	238	4.8	3.0	leadframe

Note:

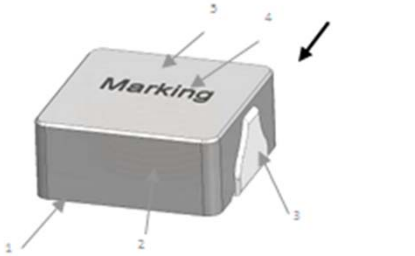
1. All test data referenced to 25℃ ambient
2. Saturation Current (Isat) will cause L0 to drop approximately 30%
3. Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40℃
4. The part temperature (ambient + temp rise) should not exceed 125℃ under worst case operating conditions. 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.
5. Special inquiries besides the above common used types can be met on your requirement.

Materials

leadframe



non-leadframe

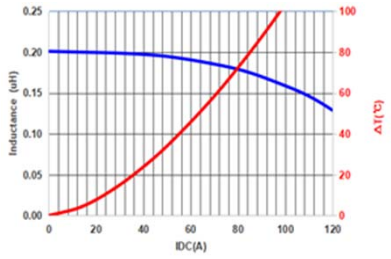


NO	Items	Materials
1	Core	Carbonyl Powder
2	Wire	Polyester Wire or equivalent
3	Clip	100% Pb free solder(Ni+Sn---Plating)
4	Ink	Halogen-free ketone
5	paint	Epoxy resin

NO	Items	Materials
1	Core	Carbonyl Powder
2	Wire	Polyester Wire or equivalent
3	Solder	100% Pb free solder
4	Ink	Halogen-free ketone
5	paint	Epoxy resin

TYPICAL PERFORMANCE CURVES

JRPI 1205V-R20



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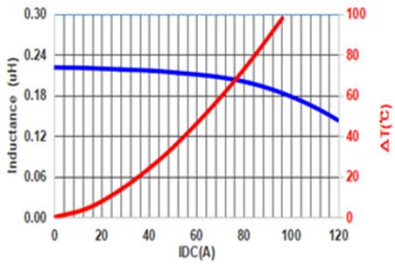

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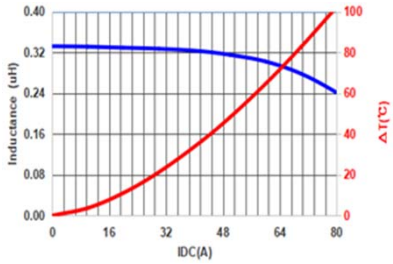

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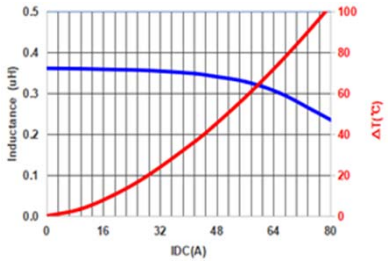

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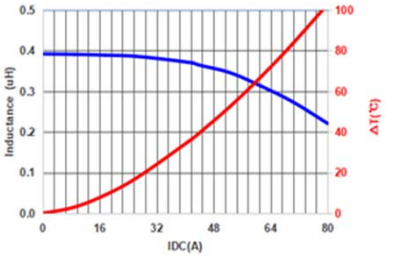

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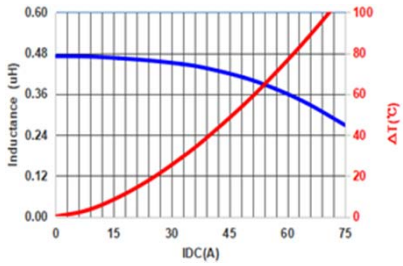

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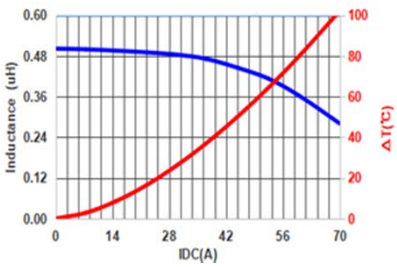

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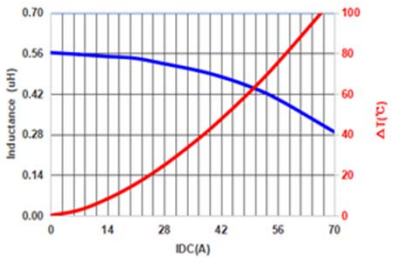

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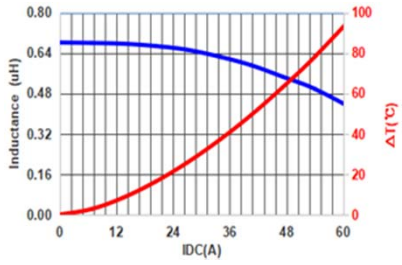

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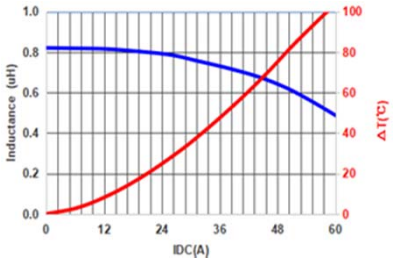

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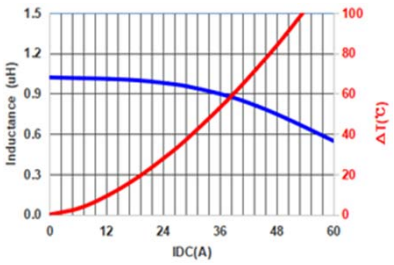

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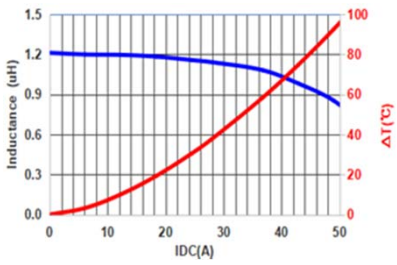

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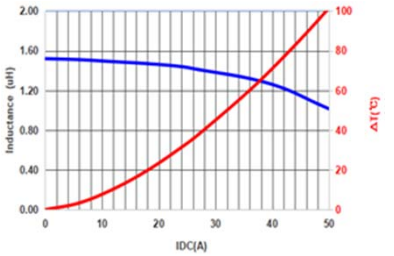

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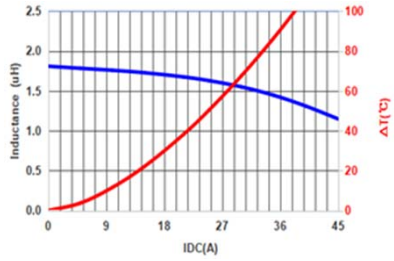

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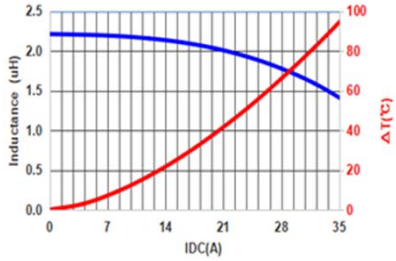

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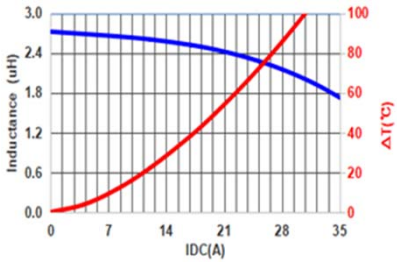

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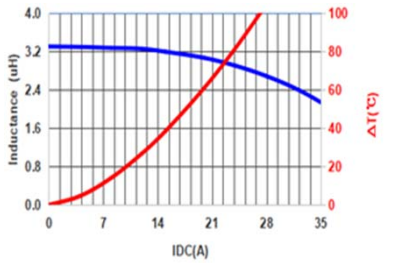

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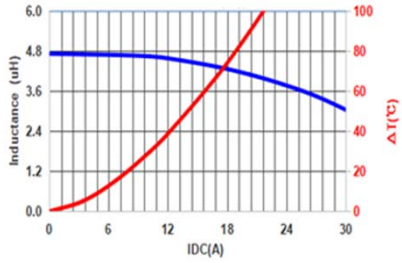

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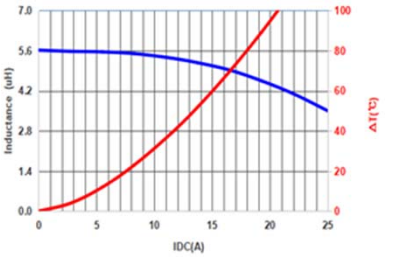

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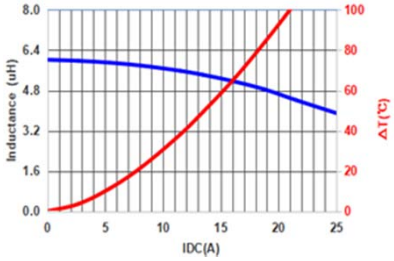

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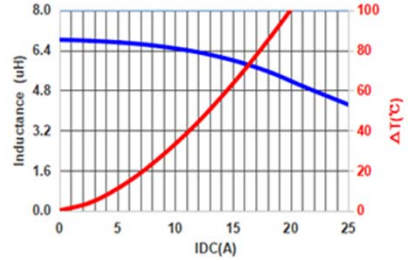

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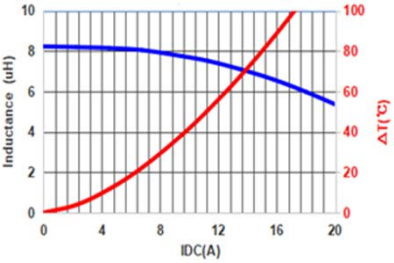

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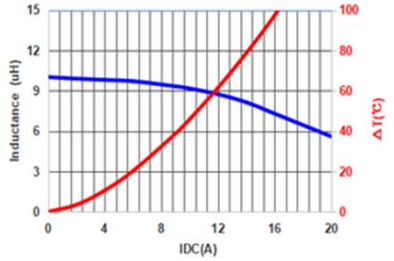

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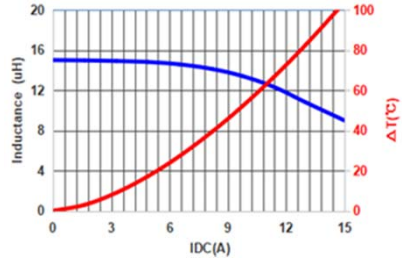

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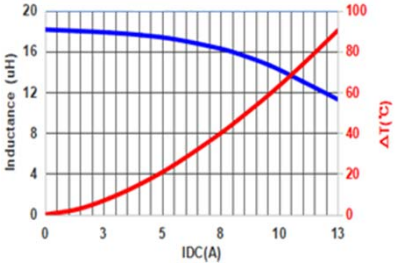

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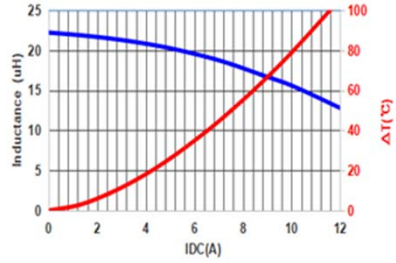

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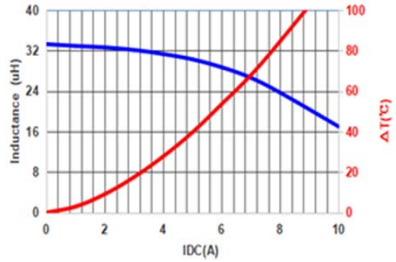

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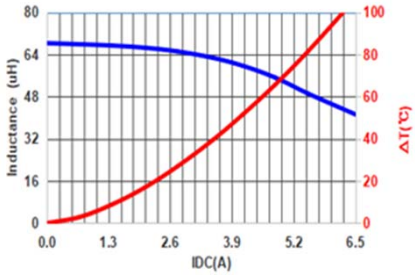

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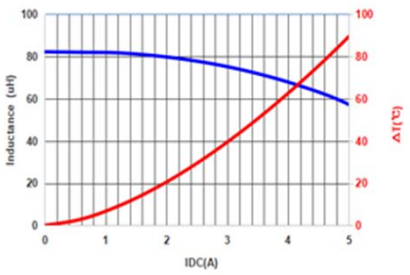
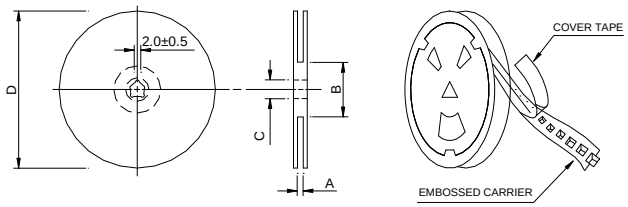


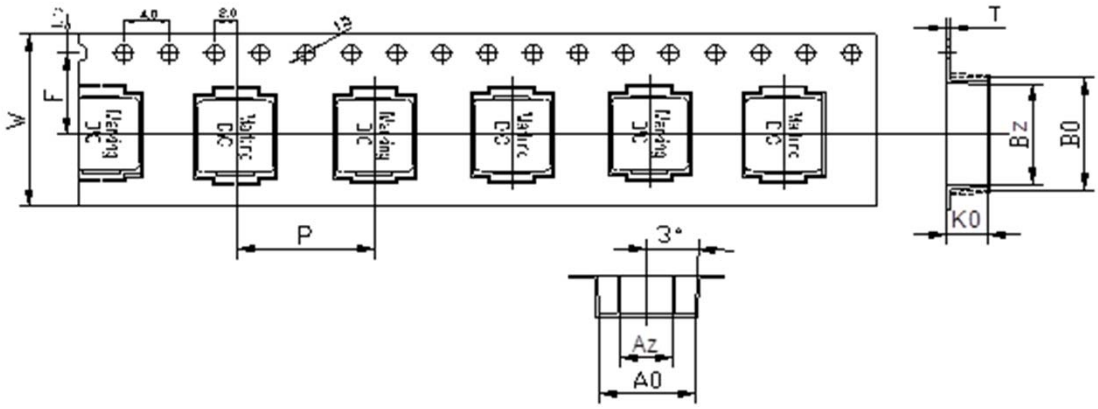
Packaging Information

• Reel Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
13"x24mm	24.4+2/-0	100±2	13+0.5/-0.2	330

• Tape Dimension

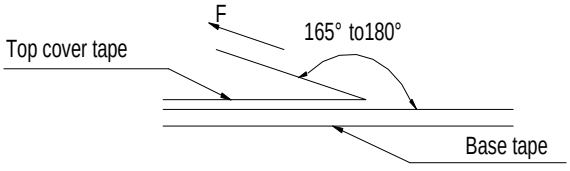


Ao(mm)	Az(mm)	Bo(mm)	Bz(mm)	Ko(mm)	P(mm)	W(mm)	F(mm)	t(mm)
12.9±0.1	7.0±0.1	14.1±0.1	13.0±0.1	5.5±0.1	16.0±0.1	24±0.3	11.5±0.1	0.35±0.05

• Packaging Quantity

Size	Reel	Inner box	Carton
JRPI 1205V	500	1000	4000

• 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-D-2008 of 4.11 standard)

Room Temp. (℃)	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-020E standard-MSL, level 1.
  2. Temperature and humidity conditions: Less than 40℃ 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.