PI 07050 TYPE

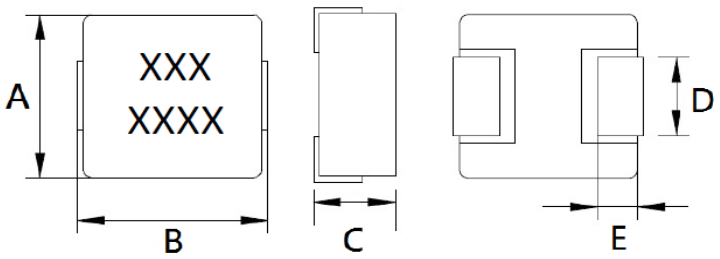
●FEATURE

1. Shielded construction
2. Frequency range up to 5MHz, Low DCR(Ω)
3. Low Buzz Noise

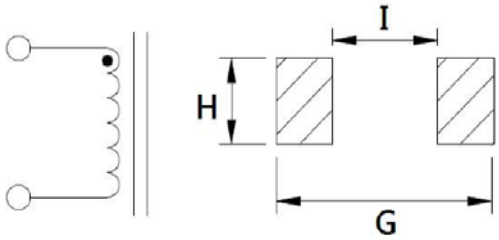
●Applications

1. Notebook, server application, High current power supplier

●Shape and Dimension



●Schematics and Land Patterns(mm)



A=6.80m/m Max ; B=7.30m/m Max ; C=5.00m/m Max. ; D=3.00±0.3m/m ; E=1.50m/m Ref. ; G=8.00m/m Ref. ; H=3.45m/m Ref. ; I=3.70m/m Ref.

●Specification

FENG JUI P/N	L (μH)	RDC (mΩ) Typical	RDC (mΩ)Max	Isat (A)	Irms (A)
PI07050-R56M	0.56±20%	3.4	4.3	12.0	20.0
PI07050-R68M	0.68±20%	4.2	4.5	11.5	18.0
PI07050-R82M	0.82±20%	4.6	4.9	13.0	16.5
PI07050-1R0M	1.0±20%	5.6	6.5	15.0	12.0
PI07050-1R5M	1.5±20%	8.6	9.0	12.0	11.5
PI07050-2R2M	2.2±20%	13	13.6	10.0	10.0
PI07050-3R3M	3.3±20%	19.9	20.9	8.0	8.0
PI07050-4R7M	4.7±20%	28.9	30.3	7.0	6.5
PI07050-5R6M	5.6±20%	32.7	34.4	7.0	6.0
PI07050-6R8M	6.8±20%	42.5	44.6	5.5	5.5
PI07050-8R2M	8.2±20%	48.3	50.7	5.0	5.0
PI07050-100M	10±20%	67.9	71.3	4.5	4.5
PI07050-150M	15±20%	90	100	4.3	4.3
PI07050-220M	22±20%	145	155	4.0	3.5
PI07050-330M	33±20%	215	260	2.0	2.0
PI07050-470M	47±20%	300	330	1.8	1.5

Note1. Measurement frequency of Inductance value : at 100KHz

Note2. Measurement ambient temperature of L, DCR and IDC : at 25℃

Note3. Isat: DC current at which the inductance drops 20%(typ) from its value without current

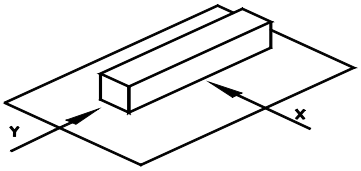
Note4. Irms: Average current for 40℃ temperature rise from 25℃ ambient(typical)

Note5. Inductance tolerance: M: ±20%

Note6. Packaging: Taping ; Quantity: 800 pieces/reel

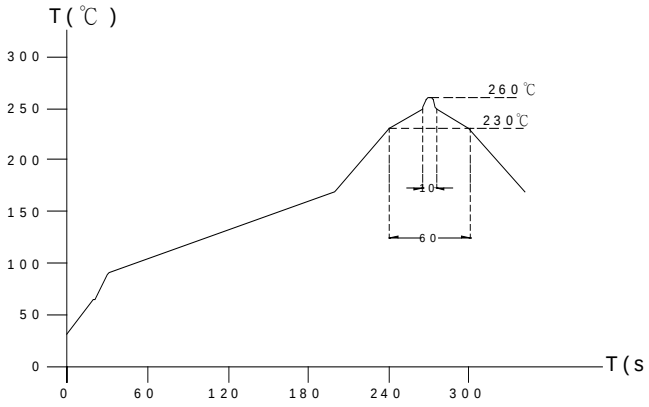
GENERAL CHARACTERISTICS

1. Operating temperature range: -55 TO + 125℃(Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has no external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Y withstanding at below conditions.
   Terminal should not peel off. (refer to figure at right) 5. 0N 60 sec.

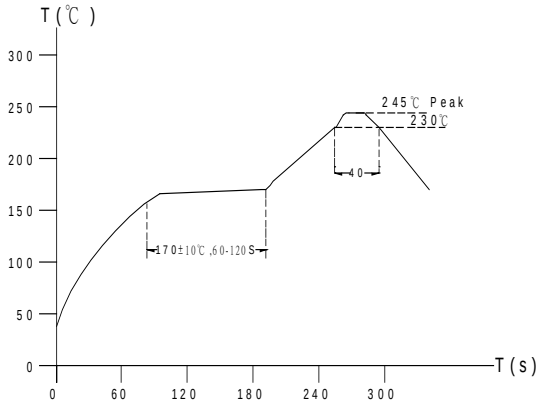


4. Insulating resistance: Over 100MΩ at 100V D.C. between coil and core.
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core.
6. Temperature characteristics: Inductance coefficient (0~2,000)x10-6/℃(-25~+80℃ degree Celsius), inductance deviation within±5.0%, after 96 hours.
7. Humidity characteristics(Moisture Resistance): Inductance deviation within ±5%, after 96 hours in 90~95% relative humidity at 40 ±2℃and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within ±5%, after vibration for 1 hour. In each of three orientations at sweep vibration (10~55~10 Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within ±5%, after being dropped once with 981m/s2 (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat: 260℃, 10 seconds(See attached recommend reflow)
11. Storage condition: Temperature Range: 0℃ ~ 35℃；-55℃ ~ 125℃ (after PCB)，Humidity Range: 50% ~ 70% RH
12. Use components within 12 months. If 12 months or more have elapsed, check solderability before use.
13. Reflow profile recommend:

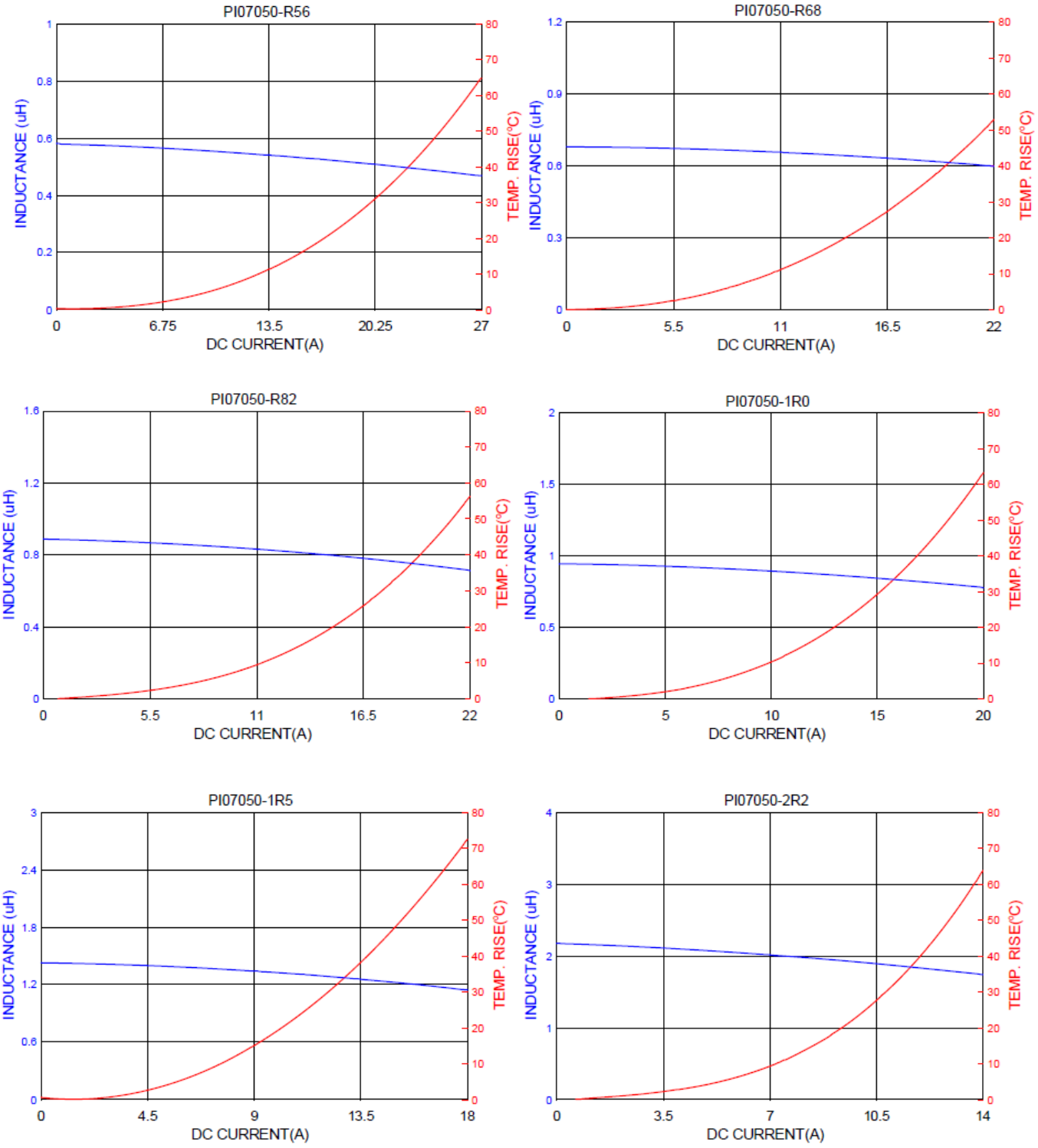
Lead-free heat endurance test

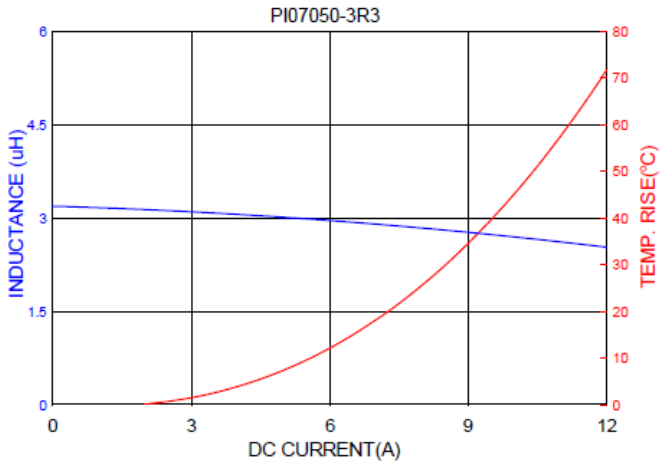


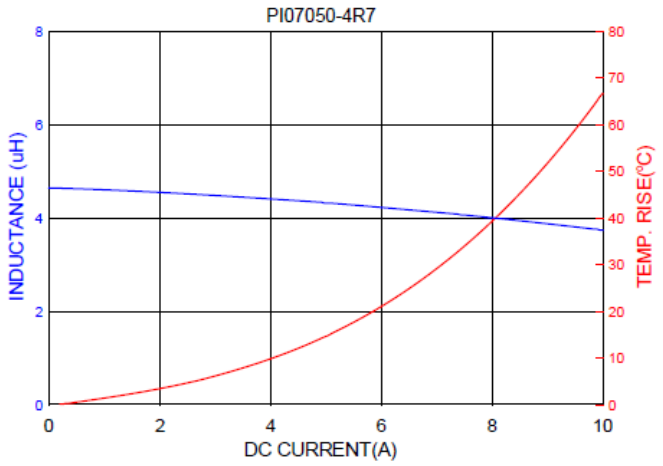
Lead-free the recommended reflow condition

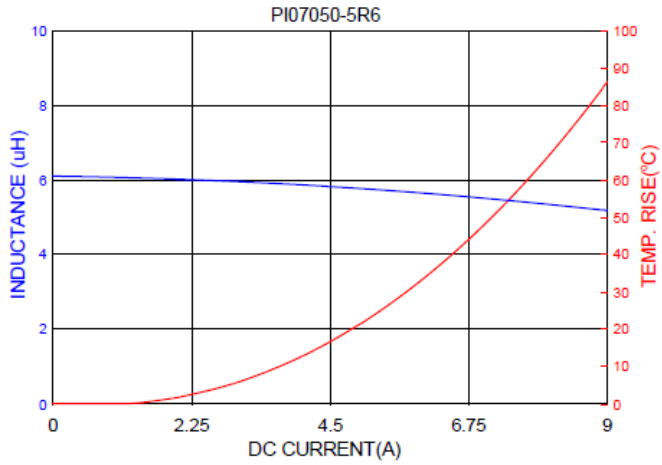


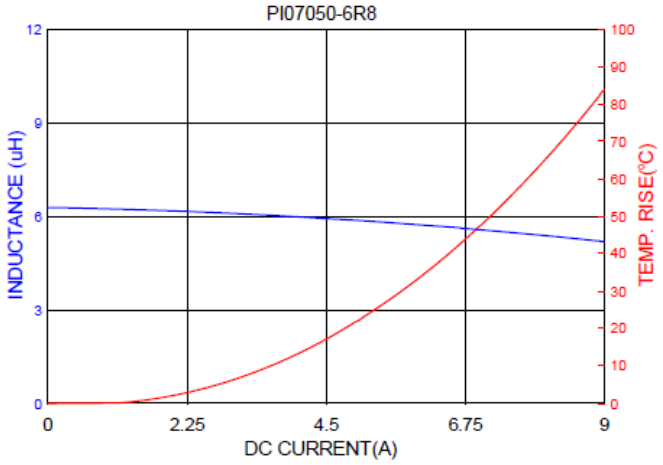
Typical Electrical Curve: Inductance VS Isat , Irms VS TEMP.

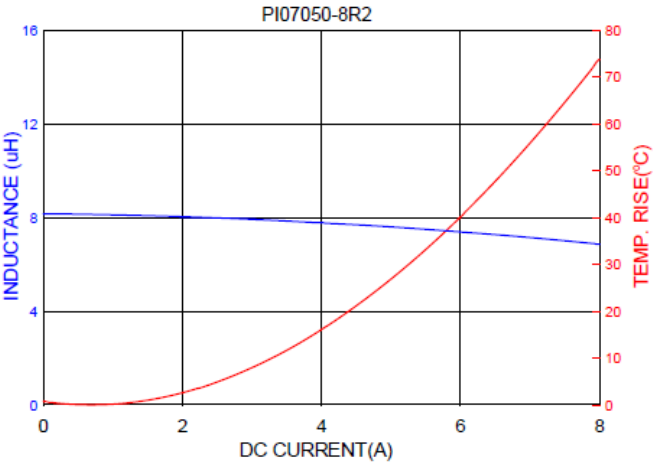


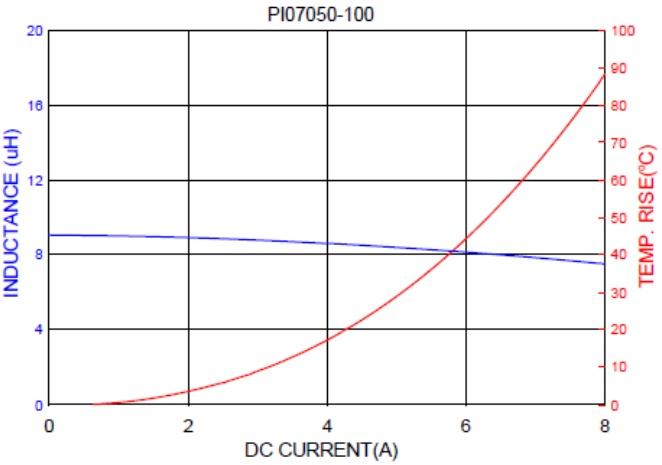

PI07050-3R3
INDUCTANCE (uH)
TEMP. RISE(°C)
DC CURRENT(A)
0
1.5
3
4.5
6
0
10
20
30
40
50
60
70
80
0
3
6
9
12


PI07050-4R7
INDUCTANCE (uH)
TEMP. RISE(°C)
DC CURRENT(A)
0
2
4
6
8
0
10
20
30
40
50
60
70
80
0
2
4
6
8
10


PI07050-5R6
INDUCTANCE (uH)
TEMP. RISE(°C)
DC CURRENT(A)
0
2
4
6
8
10
0
10
20
30
40
50
60
70
80
90
100
0
2.25
4.5
6.75
9


PI07050-6R8
INDUCTANCE (uH)
TEMP. RISE(°C)
DC CURRENT(A)
0
3
6
9
12
0
10
20
30
40
50
60
70
80
90
100
0
2.25
4.5
6.75
9


PI07050-8R2
INDUCTANCE (uH)
TEMP. RISE(°C)
DC CURRENT(A)
0
4
8
12
16
0
10
20
30
40
50
60
70
80
0
2
4
6
8


PI07050-100
INDUCTANCE (uH)
TEMP. RISE(°C)
DC CURRENT(A)
0
4
8
12
16
20
0
10
20
30
40
50
60
70
80
90
100
0
2
4
6
8