PIC04020 TYPE

●FEATURE

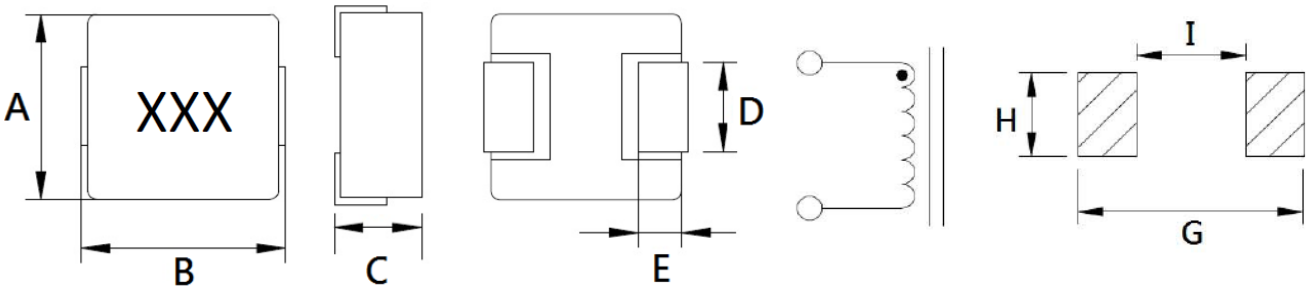
1. Shielded construction
2. Alloy metal material used, Low DCR ,Low Buzz Noise

●Applications

1. Notebook, server application, High current power supplier

●Shape and Dimension

●Schematics and Land Patterns(mm)



A=4.45m/m Max ; B=4.75m/m Max ; C=2.00m/m Max. ; D= 2.00±0.3m/m ; E=0.80±0.3m/m ; G=5.20m/m ; H=2.50m/m ; I=2.50m/m

●Specification

P/N	L (μH)	RDC (mΩ) Typ.	RDC (mΩ) Max.	Isat (A)	Irms (A)
PIC04020-R47M	0.47±20%	12.5	14.0	9.5	7.5
PIC04020-1R0M	1.0±20%	24	27	7.0	6.0
PIC04020-1R5M	1.5±20%	38	46	6.0	5.0
PIC04020-2R2M	2.2±20%	52	58	5.0	4.5
PIC04020-3R3M	3.3±20%	74	87	4.0	3.3
PIC04020-4R7M	4.7±20%	92	105	3.0	2.8
PIC04020-6R8M	6.8±20%	160	175	2.5	2.1
PIC04020-100M	10±20%	256	282	2.2	1.6

Note1. Measurement frequency of Inductance value : at 100KHz, 1V

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

Note3. Isat: DC current at which the inductance drops 30%(typ) from its value without current

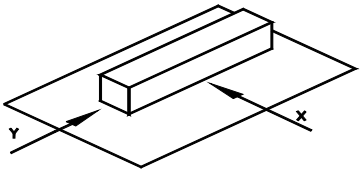
Note4. Irms: Average current for 40℃ temperature rise from 25℃ ambient(typical)

Note5. Inductance tolerance: M: ±20%

Note6. Packaging: Taping ; Quantity: 3000 Piece/reel

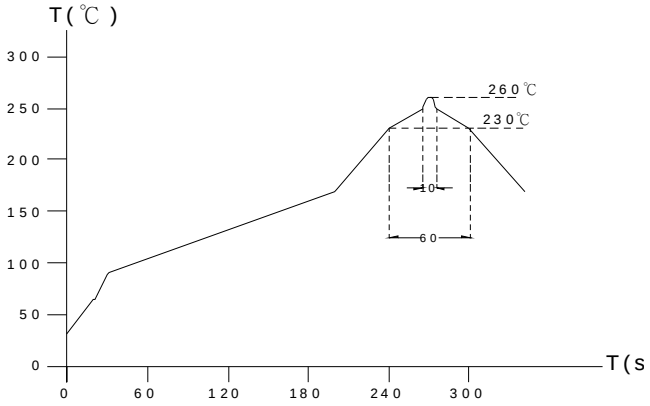
GENERAL CHARACTERISTICS

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) 5N. 0N 60 sec.

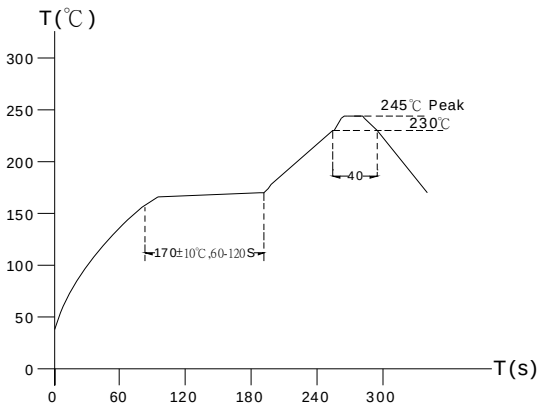


4. Insulating resistance: Over 100MΩ at 100V D.C. between coil and core.
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core.
6. Temperature characteristics: Inductance coefficient (0~2,000)x10-6/℃(-25~+80℃ degree Celsius), inductance deviation within±5.0%, 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

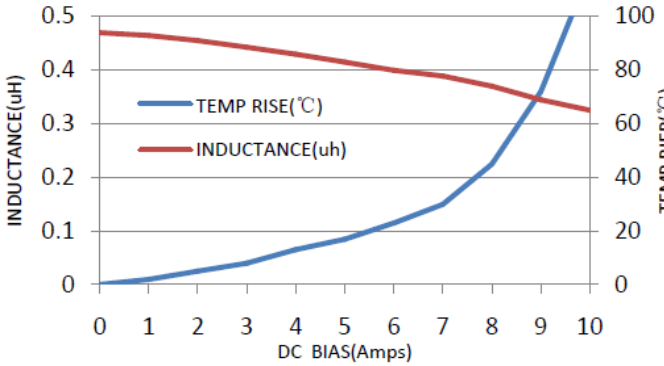


Lead-free the recommended reflow condition

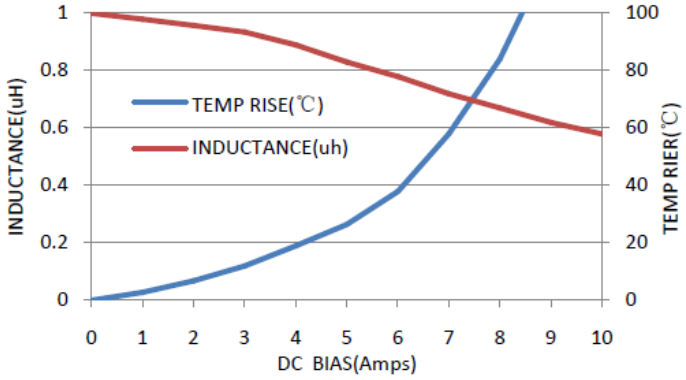


●Typical Electrical Curve: Inductance VS Isat , Irms VS TEMP.

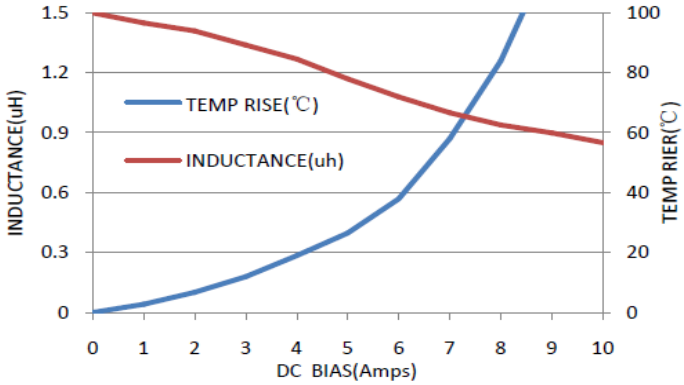
PIC04020-R47M



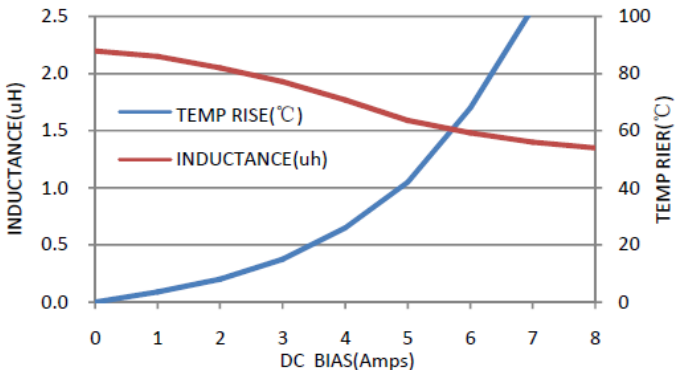
PIC04020-1R0M



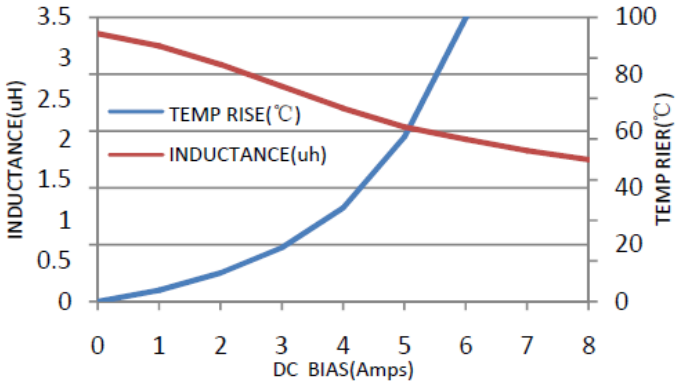
PIC04020-1R5M



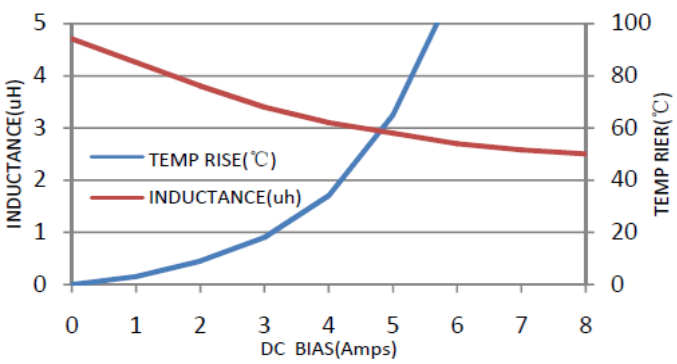
PIC04020-2R2M



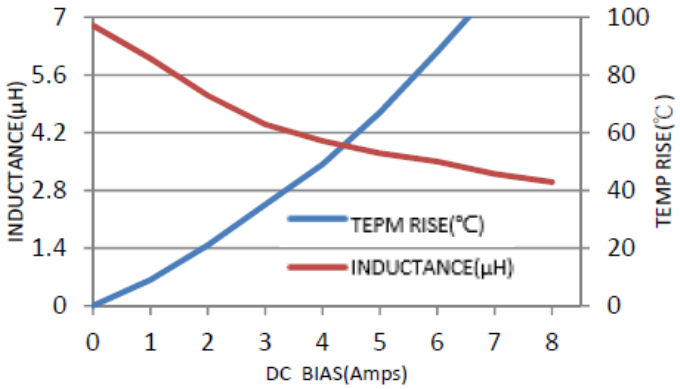
PIC04020-3R3M



PIC04020-4R7M



PIC04020-6R8M



PIC04020-100M

