

# PIT07012 TYPE

## ●FEATURE

1. Shielded construction
2. Frequency range up to 5MHz, Low DCR( $\mu$ H)
3. Low Buzz Noise

## ●Applications

1. Notebook, server application, High current power supplier

## ●Shape and Dimension

## ●Schematics and Land Patterns(mm)

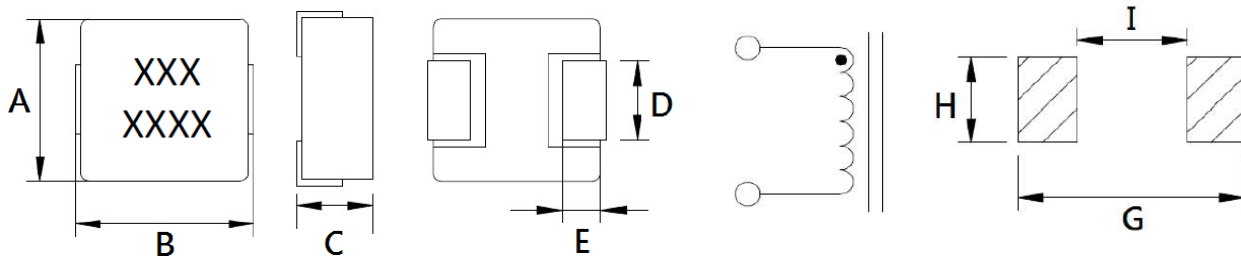


Figure 1

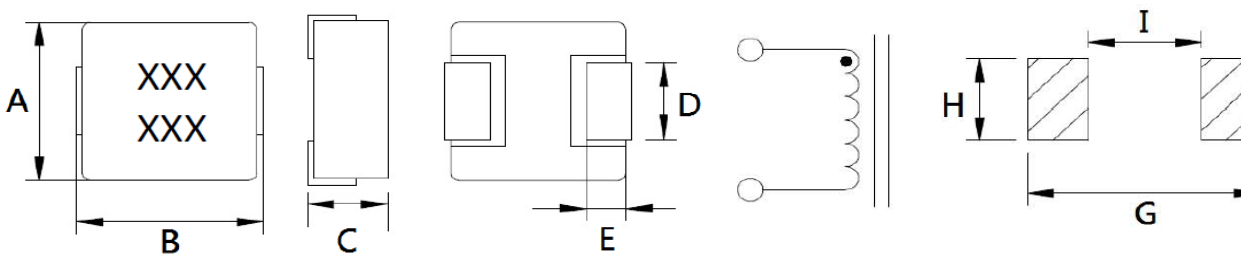


Figure 2

A=6.90m/m Max ; B=7.30m/m Max ; C=1.20m/m Max. ; D=2.50 $\pm$ 0.3m/m ; E=1.80m/m Ref. ; G=7.70m/m Ref. ; H=3.00m/m Ref. ; I=2.50m/m Ref.

## ●Specification

P/N	L ( $\mu$ H)	RDC (m $\Omega$ )Max	Isat (A)	Irms (A)	FIG
PIT07012-R68M	0.68 $\pm$ 20%	19	8.0	7.0	1
PIT07012-1R0M	1.0 $\pm$ 20%	28	7.0	6.0	1
PIT07012-1R5M	1.5 $\pm$ 20%	40.8	6.0	4.5	1
PIT07012-2R2M	2.2 $\pm$ 20%	61.0	5.0	4.0	1
PIT07012-3R3M	3.3 $\pm$ 20%	103	3.6	3.0	1
PIT07012-4R7M	4.7 $\pm$ 20%	150	3.2	2.5	1
PIT07012-6R8M	6.8 $\pm$ 20%	217	2.4	2.1	2
PIT07012-100M	10 $\pm$ 20%	290	2.2	2.0	2

Note1. Measurement frequency of Inductance value : at 100KHz

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

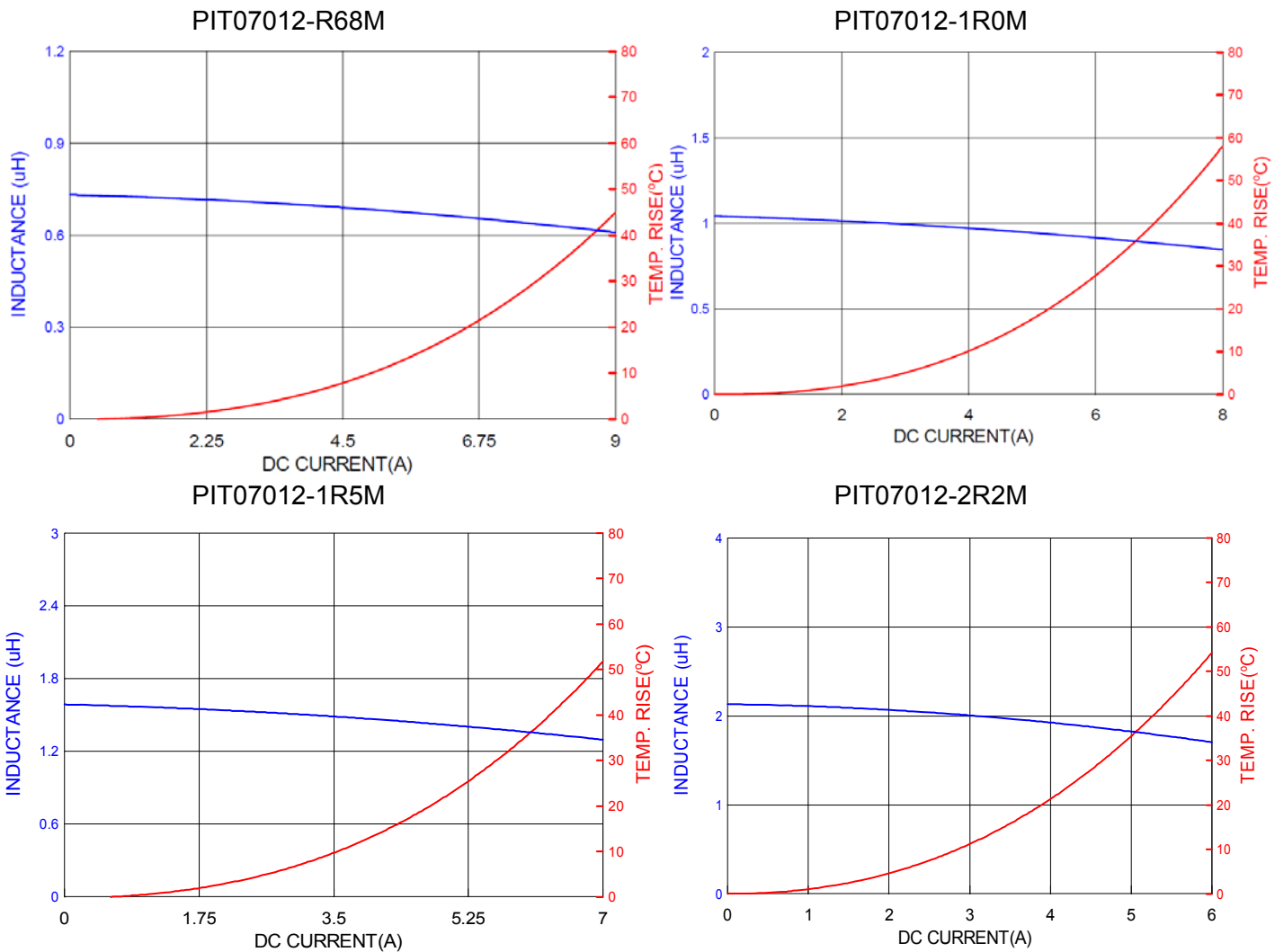
Note3. Isat: DC current at which the inductance drops 20%(typ) from its value without current

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

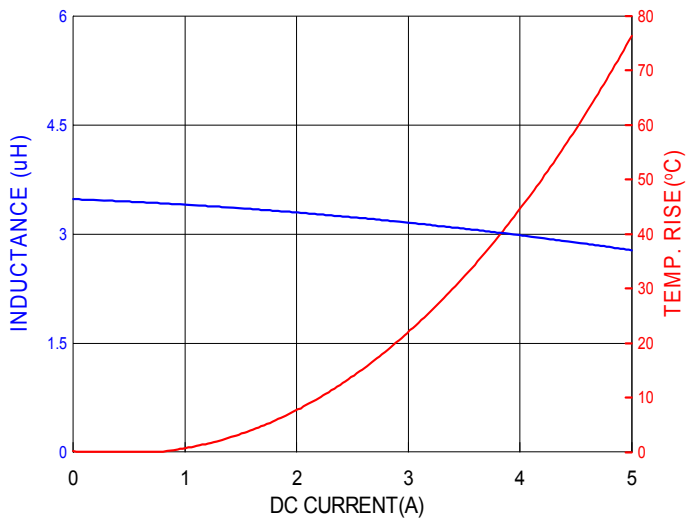
Note5. Inductance tolerance: M: ±20%

Note6. Packing: Reel ; Quantity: 3000 Piece

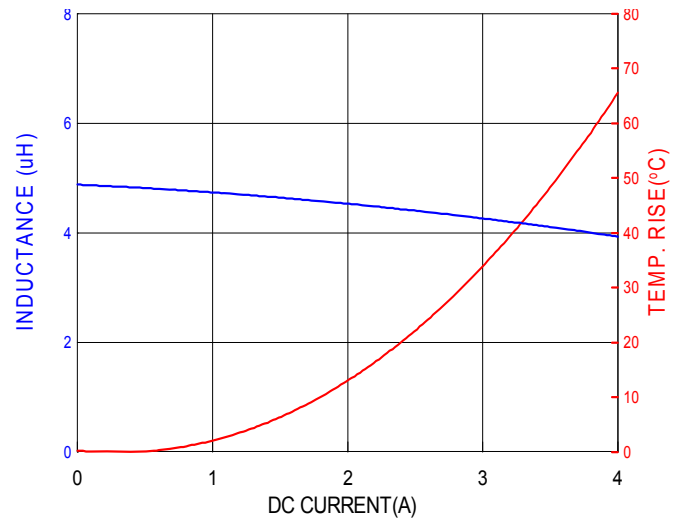
● Typical Electrical Curve: Inductance VS Isat , Irms VS TEMP.



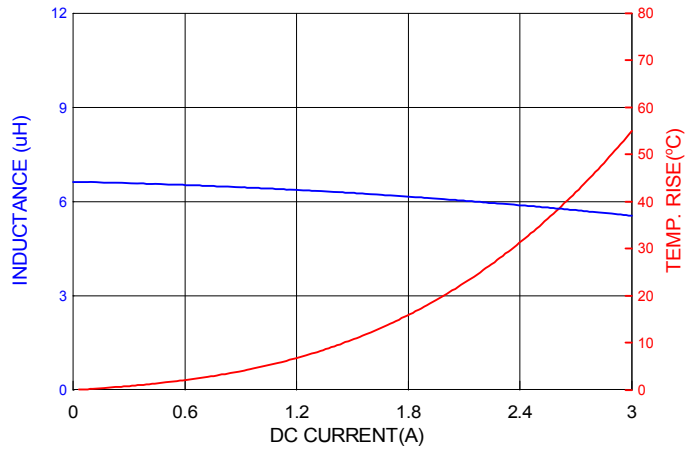
PIT07012-3R3M



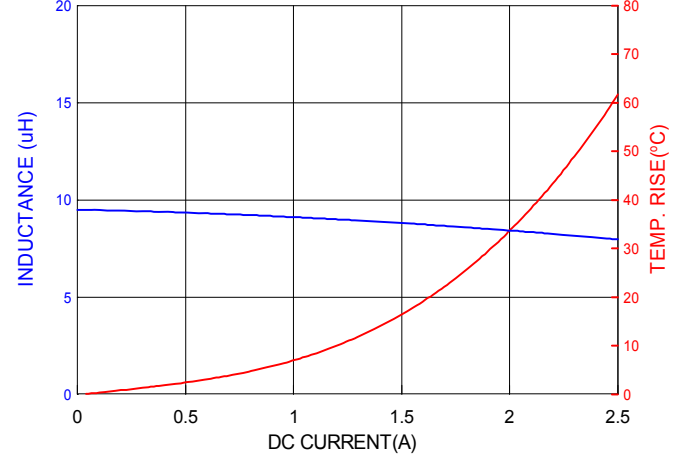
PIT07012-4R7M



PIT07012-6R8M

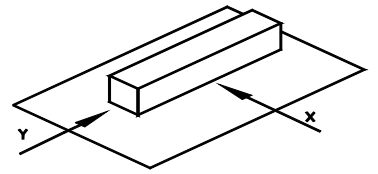


PIT07012-100M

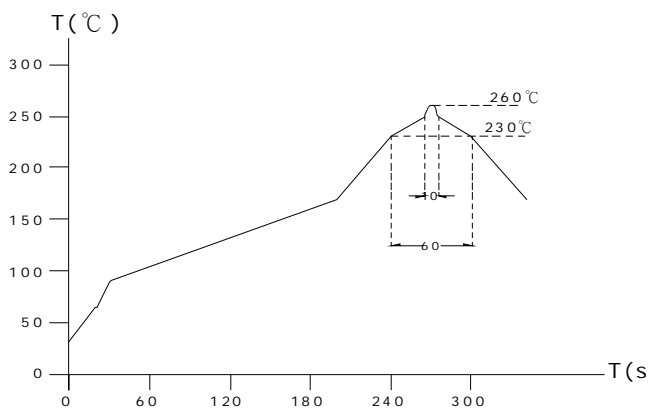


## GENERAL CHARACTERISTICS

1. Operating temperature range:  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  (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  $100\text{M}\Omega$  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  $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$  ( $-25\sim +80^{\circ}\text{C}$ ).
7. Humidity characteristics(Moisture Resistance): Inductance deviation within  $\pm 5\%$ , after 96 hours in 90~95% relative humidity at  $40 \pm 2^{\circ}\text{C}$  and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within  $\pm 5\%$ , after vibration for 1 hour. In each of three orientations at sweep vibration ( $10\sim 55\sim 10$  Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within  $\pm 5\%$ , after being dropped once with  $981\text{m/s}^2$  (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat:  $260^{\circ}\text{C}$ , 10 seconds(See attached recommend reflow)
11. Storage environment: Storage condition: Temperature Range:  $10^{\circ}\text{C} \sim 35^{\circ}\text{C}$  (Generally:  $21^{\circ}\text{C} \sim 31^{\circ}\text{C}$ ) , Humidity Range: 50% ~ 80% RH (Generally: 65% ~ 75%) ; Transportation condition: Temperature Range:  $-35^{\circ}\text{C} \sim 85^{\circ}\text{C}$  , Humidity Range: 50% ~ 95% RH
12. Use components within 6 months. If 6 months or more have elapsed, check solderability before use.
13. Reflow profile recommend:



Lead-free heat endurance test



Lead-free the recommended reflow condition

