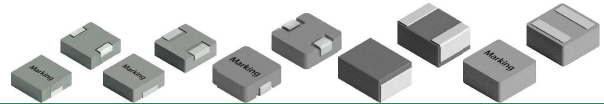




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MOLDING POWER INDUCTORS HIGH CURRENT INDUCTORS -EPI07030 SERIES



●FEATURE

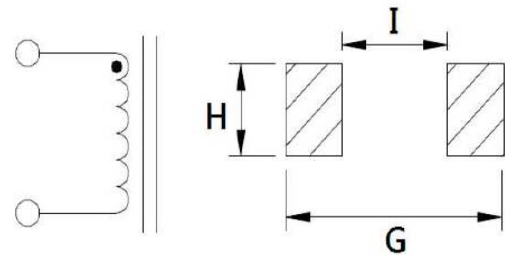
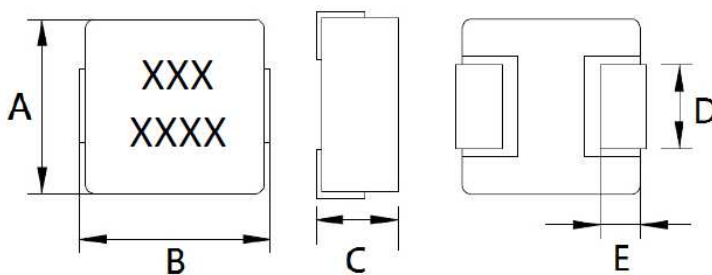
1. Shielded construction
2. Frequency range up to 5MHz, Low DCR(Ω),Low Buzz Noise

●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=3.00m/m Max. ; D=3.00±0.3m/m ; E=1.50m/m Ref. ;
G=8.00m/m ; H=3.45m/m ; I=3.70m/m

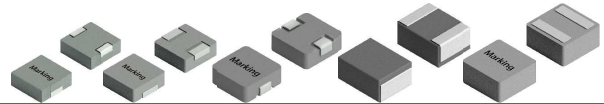
●Specification

| P/N | L (μ H) | RDC (m Ω) Typical | RDC (m Ω)Max | Isat (A) | Irms (A) |
|---------------|-----------------|------------------------------|-------------------------|-------------|-------------|
| EPI07030-R10M | 0.10±20% | 1.5 | 1.7 | 60 | 32.5 |
| EPI07030-R15M | 0.15±20% | 1.9 | 2.5 | 52 | 26 |
| EPI07030-R20M | 0.20±20% | 2.4 | 3.0 | 41 | 24 |
| EPI07030-R22M | 0.22±20% | 2.5 | 2.8 | 40 | 23 |
| EPI07030-R33M | 0.33±20% | 3.5 | 3.9 | 30 | 20 |
| EPI07030-R47M | 0.47±20% | 4.0 | 4.2 | 26 | 17.5 |
| EPI07030-R68M | 0.68±20% | 5.0 | 5.5 | 25 | 15.5 |
| EPI07030-R82M | 0.82±20% | 6.7 | 8.0 | 24 | 13 |
| EPI07030-1R0M | 1.0±20% | 9.0 | 10 | 22 | 11 |
| EPI07030-1R5M | 1.5±20% | 14 | 15 | 18 | 9.0 |
| EPI07030-2R2M | 2.2±20% | 18 | 20 | 14 | 8.0 |
| EPI07030-3R3M | 3.3±20% | 28 | 30 | 13.5 | 6.0 |
| EPI07030-4R7M | 4.7±20% | 37 | 40 | 10.0 | 5.5 |
| EPI07030-5R6M | 5.6±20% | 48 | 54 | 7.5 | 5.0 |
| EPI07030-6R8M | 6.8±20% | 54 | 60 | 8.0 | 4.5 |
| EPI07030-8R2M | 8.2±20% | 64 | 68 | 7.5 | 4.0 |
| EPI07030-100M | 10±20% | 102 | 105 | 7.0 | 3.0 |
| EPI07030-150M | 15±20% | 152 | 175 | 4.0 | 2.5 |



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| P/N | L (μ H) | RDC (m Ω) Typical | RDC (m Ω)Max | Isat (A) | Irms (A) |
|---------------|-----------------|------------------------------|-------------------------|-------------|-------------|
| EPI07030-220M | 22 \pm 20% | 210 | 230 | 3.0 | 2.0 |
| EPI07030-330M | 33 \pm 20% | 340 | 380 | 2.5 | 1.5 |
| EPI07030-470M | 47 \pm 20% | 550 | 580 | 2.5 | 1.25 |

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: \pm 20%

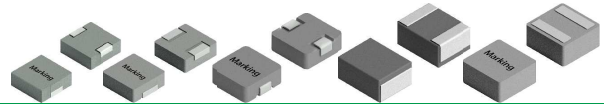
Note6. Packaging: Taping ; 1000 Piece/reel



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MOLDING POWER INDUCTORS HIGH CURRENT INDUCTORS

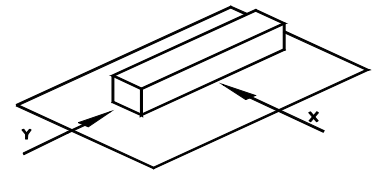
-EPI07030 SERIES



GENERAL CHARACTERISTICS

1. Operating temperature range: -55 TO + 125°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.

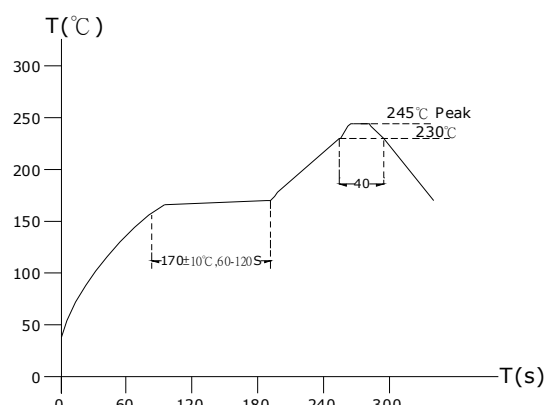
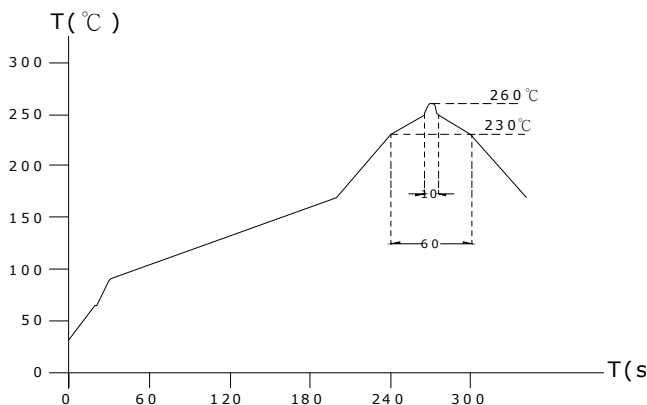
Terminal should not peel off. (refer to figure at right) 5. 0N 60 sec.



4. Insulating resistance: Over 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 $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$ (-25~+80°C degree Celsius), inductance deviation within $\pm 5.0\%$, after 96 hours.
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 (10~55~10 Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within $\pm 5\%$, 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°C, 10 seconds(See attached recommend reflow)
11. Storage condition: Temperature Range: 0°C ~ 35°C ; -55°C ~ 125°C (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



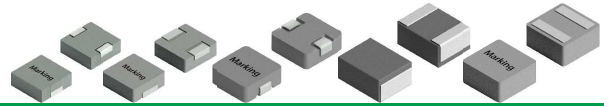


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MOLDING POWER INDUCTORS

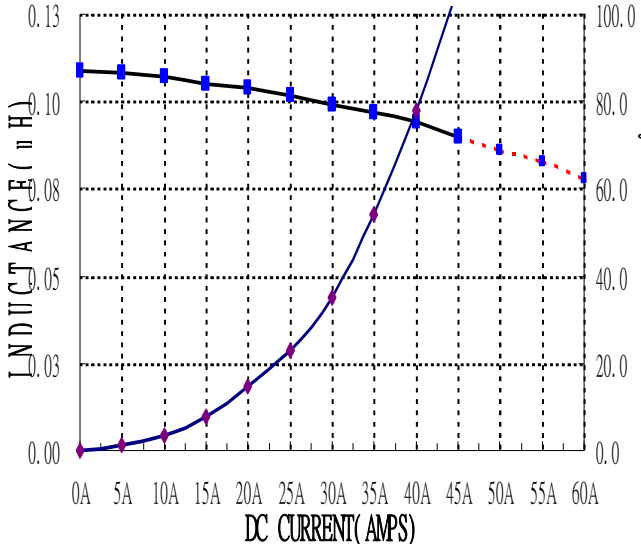
HIGH CURRENT INDUCTORS

-EPI07030 SERIES

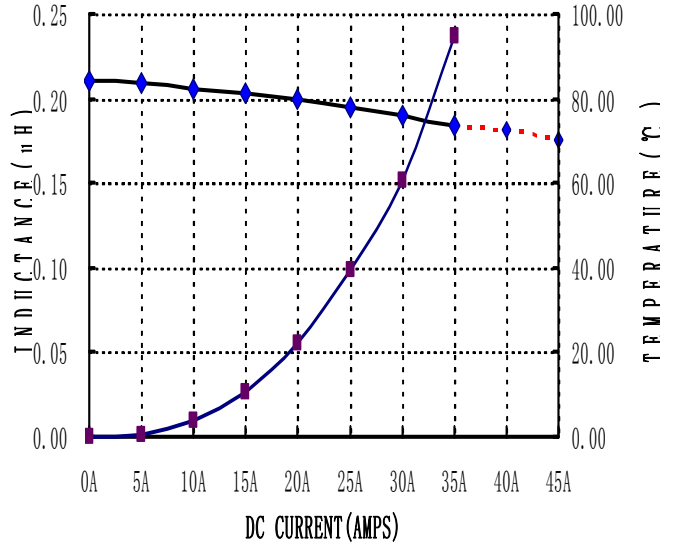


● Typical Electrical Curve: Inductance VS Isat , Irms VS TEMP.

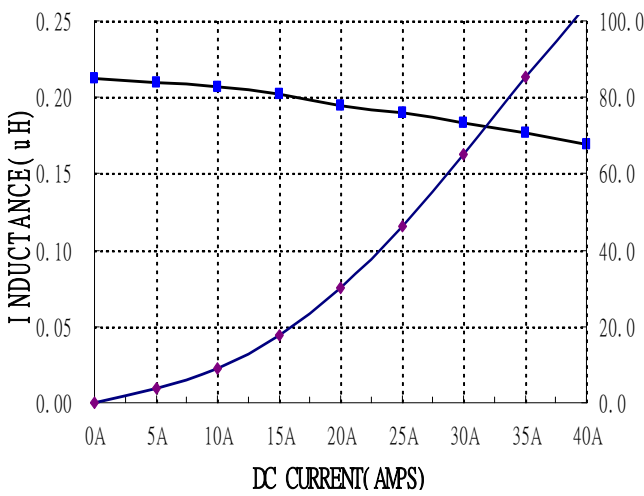
EPI07030-R10M



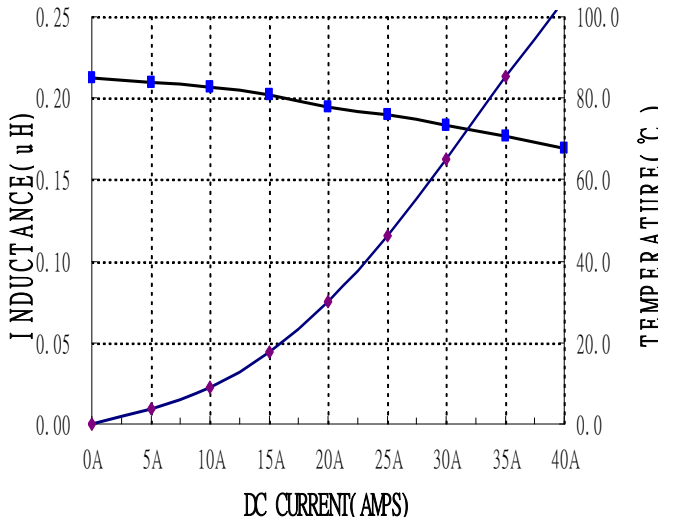
EPI07030-R15M



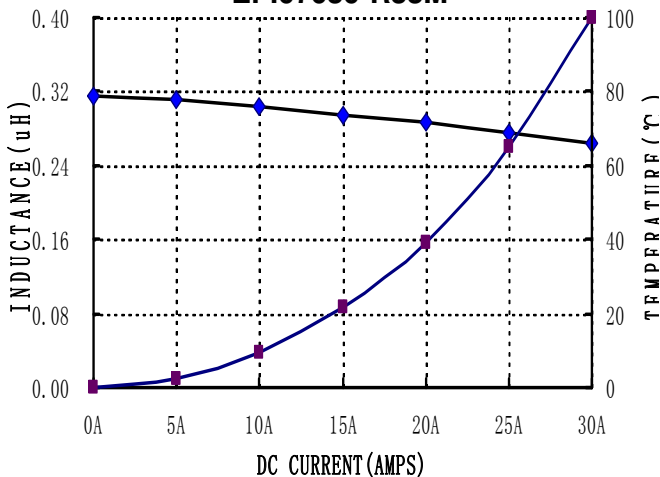
EPI07030-R20M



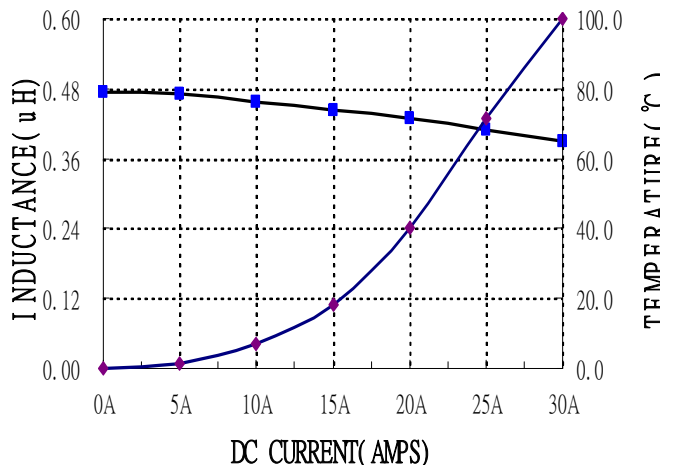
EPI07030-R22M



EPI07030-R33M



EPI07030-R47M



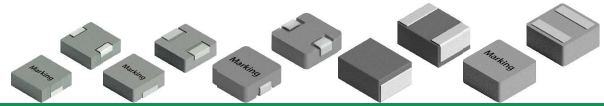


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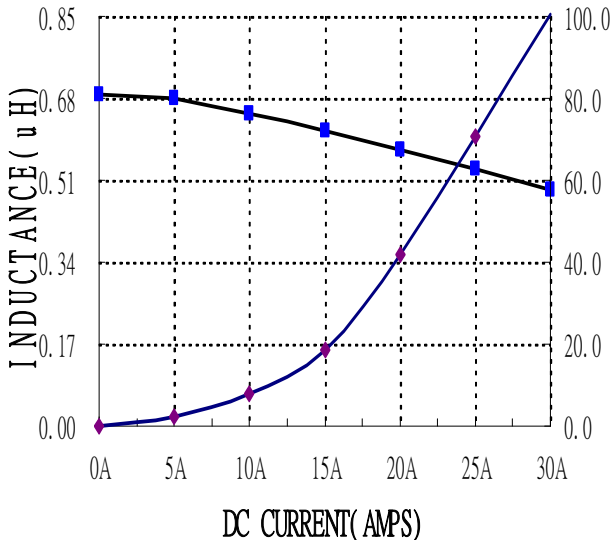
MOLDING POWER INDUCTORS

HIGH CURRENT INDUCTORS

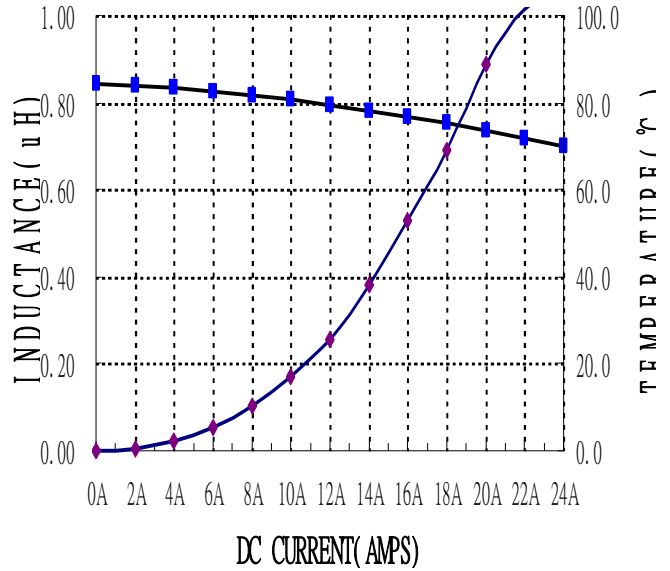
-EPI07030 SERIES



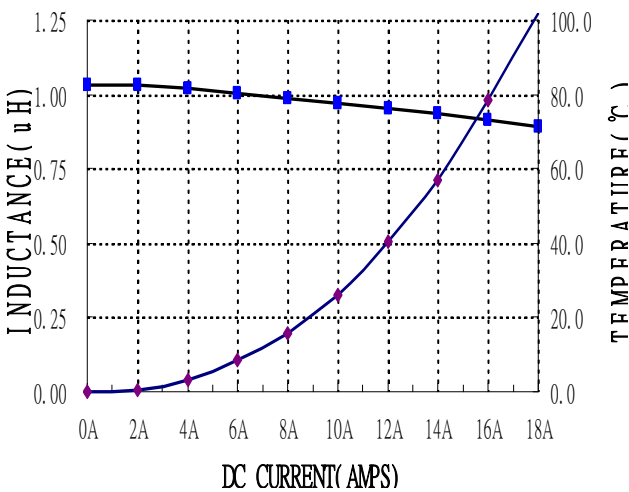
EPI07030-R68M



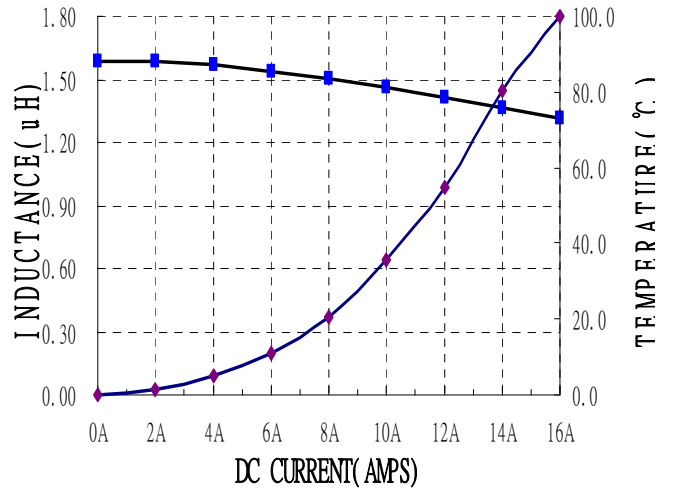
EPI07030-R82M



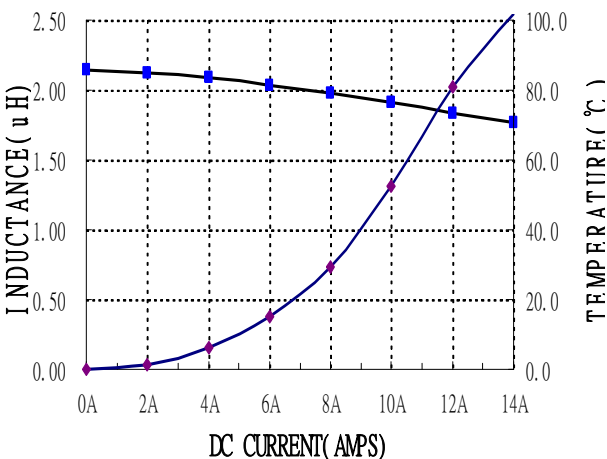
EPI07030-1R0M



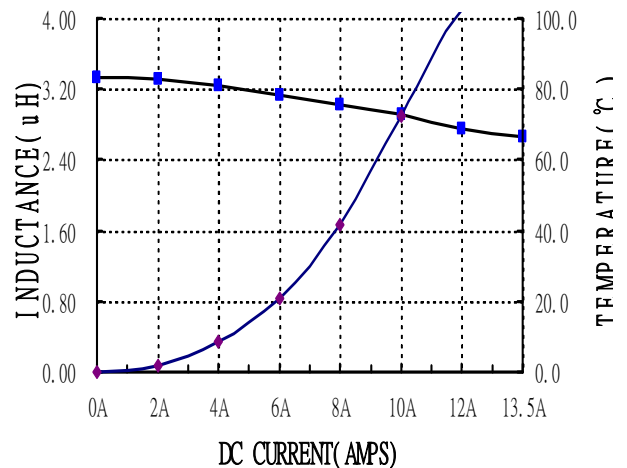
EPI07030-1R5M



EPI07030-2R2M



EPI07030-3R3M



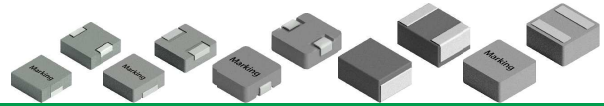


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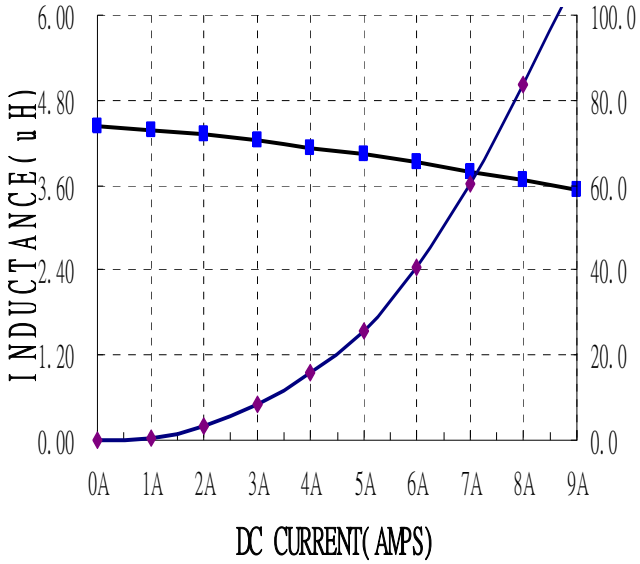
MOLDING POWER INDUCTORS

HIGH CURRENT INDUCTORS

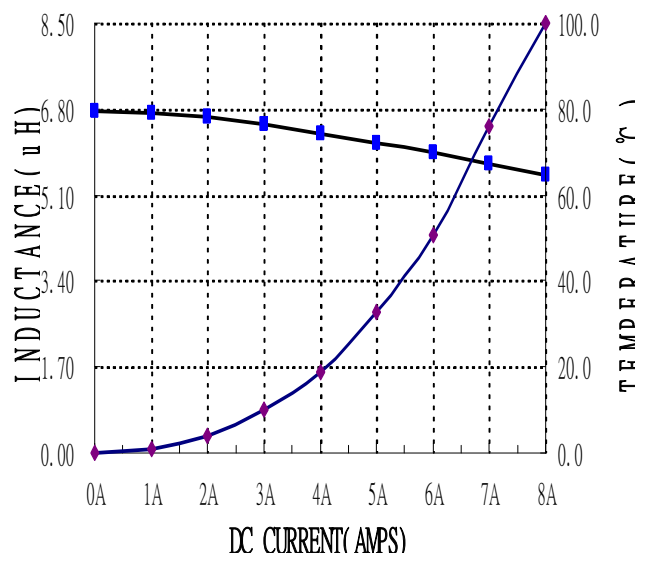
-EPI07030 SERIES



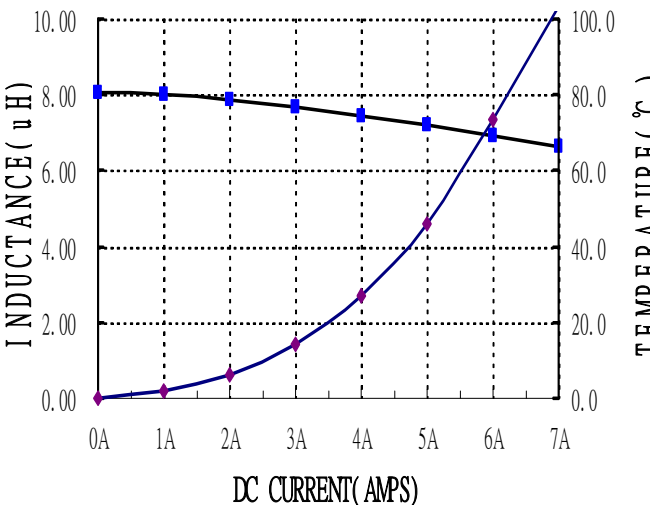
EPI07030-4R7M



EPI07030-6R8M



EPI07030-8R2M



EPI07030-100M

