

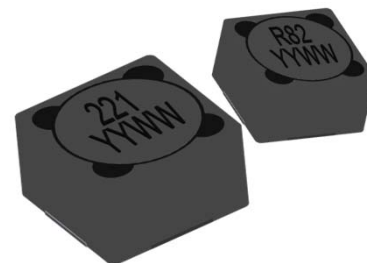


# SDRH74B Series



## 1. Features of SDRH74B Series :

- Ferrite based SMD inductor with lower core loss.
- Inductance Range: 1.0uH to 1000.0uH, custom values are welcomed.
- High current output chokes, up to 10.2 Amp with approx. 30% roll off.
- Low Profile 4.50mm max. height.
- Foot Print 7.6 x 7.6mm max.
- Perfect for high density designs with limited board space.
- Operating Temperature Range -55°C to + 130°C.
- RoHS, HF and AEC-Q200 Standard Compliant
- T & R Qtys: 1000 pcs , 13" Reel.



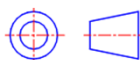
## 2. Electrical Characteristics of SDRH74B Series:

| ITG Part Number | OCL<br>(uH)<br>±20% | DCR<br>(mΩ)<br>Typ. | DCR<br>(mΩ)<br>Max. | Isat<br>(A)<br>@25°C | L@Isat<br>(uH)<br>Typ. | Irms<br>(A)<br>@25°C | L@Irms<br>(uH)<br>Typ. |
|-----------------|---------------------|---------------------|---------------------|----------------------|------------------------|----------------------|------------------------|
| SDRH74B-1R0MHF  | 1.0                 | 0.0085              | 0.0102              | 10.20                | 0.89                   | 8.00                 | 0.98                   |
| SDRH74B-1R5MHF  | 1.5                 | 0.0118              | 0.0142              | 8.35                 | 1.25                   | 6.80                 | 1.31                   |
| SDRH74B-2R2MHF  | 2.2                 | 0.0135              | 0.0162              | 7.06                 | 1.83                   | 6.35                 | 1.94                   |
| SDRH74B-3R3MHF  | 3.3                 | 0.0171              | 0.0205              | 5.40                 | 2.69                   | 5.65                 | 2.59                   |
| SDRH74B-4R7MHF  | 4.7                 | 0.0234              | 0.0281              | 4.37                 | 3.87                   | 4.85                 | 3.69                   |
| SDRH74B-6R8MHF  | 6.8                 | 0.0395              | 0.0474              | 3.67                 | 6.14                   | 3.70                 | 6.04                   |
| SDRH74B-8R2MHF  | 8.2                 | 0.0407              | 0.0488              | 3.40                 | 6.86                   | 3.65                 | 6.28                   |
| SDRH74B-100MHF  | 10.0                | 0.0475              | 0.0570              | 3.17                 | 7.73                   | 3.40                 | 7.53                   |
| SDRH74B-150MHF  | 15.0                | 0.0671              | 0.0805              | 2.48                 | 12.89                  | 2.85                 | 9.65                   |
| SDRH74B-220MHF  | 22.0                | 0.0961              | 0.1150              | 2.13                 | 17.09                  | 2.40                 | 13.33                  |
| SDRH74B-330MHF  | 33.0                | 0.1430              | 0.1720              | 1.73                 | 25.54                  | 1.95                 | 21.21                  |
| SDRH74B-470MHF  | 47.0                | 0.2190              | 0.2630              | 1.41                 | 42.15                  | 1.58                 | 35.10                  |
| SDRH74B-680MHF  | 68.0                | 0.2740              | 0.3290              | 1.19                 | 55.51                  | 1.41                 | 35.01                  |
| SDRH74B-820MHF  | 82.0                | 0.3250              | 0.3900              | 1.11                 | 62.89                  | 1.30                 | 46.43                  |
| SDRH74B-101MHF  | 100.0               | 0.4090              | 0.4910              | 0.99                 | 81.81                  | 1.15                 | 57.80                  |
| SDRH74B-151MHF  | 150.0               | 0.5980              | 0.7180              | 0.81                 | 117.86                 | 0.95                 | 74.66                  |
| SDRH74B-221MHF  | 220.0               | 0.9150              | 1.1000              | 0.66                 | 182.21                 | 0.77                 | 130.28                 |
| SDRH74B-331MHF  | 330.0               | 1.3600              | 1.6300              | 0.54                 | 296.35                 | 0.64                 | 220.36                 |
| SDRH74B-471MHF  | 470.0               | 1.9800              | 2.3760              | 0.46                 | 453.00                 | 0.53                 | 337.15                 |
| SDRH74B-681MHF  | 680.0               | 2.6500              | 3.1800              | 0.38                 | 631.05                 | 0.46                 | 515.35                 |
| SDRH74B-821MHF  | 820.0               | 3.3500              | 4.0200              | 0.35                 | 756.45                 | 0.40                 | 678.05                 |
| SDRH74B-102MHF  | 1000.0              | 4.5000              | 5.4000              | 0.31                 | 964.25                 | 0.35                 | 920.30                 |

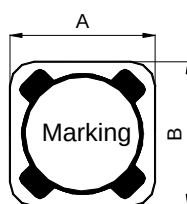
## 3. Mechanical Dimension of SDRH74B Series (Unit:mm)

| A    | B    | C    | D    | E    | F    |
|------|------|------|------|------|------|
| ±0.3 | ±0.3 | Max. | Ref. | Ref. | Ref. |
| 7.3  | 7.3  | 4.5  | 7.0  | 3.9  | 2.0  |

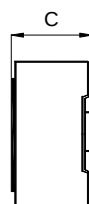
Third Angle Projection:



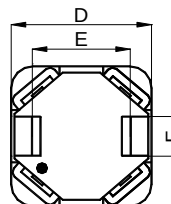
Part Marking:  
Rxx x: xx is inductance value in uH(R:decimal point),  
x is special code.  
YYWW: Date Code



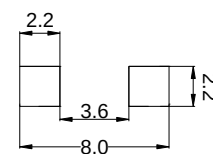
TOP VIEW



SIED VIEW



BOTTOM VIEW



Suggest PCB Layout

### Notes:

1. Open Circuit Inductance (OCL), L@Irms, L@Isat and DCR test condition: 100KHz, 0.25Vrms at 25°C.
2. Isat: DC current that causes inductance to drop by approximately 30% from OCL; (Ta=25°C)
3. Irms: DC current that causes an approximate temperature rise ( $\Delta T$ ) of 40°C; (Ta=25°C)

● New York 1 914 347 2474 ● Taipei 886 2 2698 8669 ● Kaohsiung 886 7 350 2275  
 ● Tokyo 81 568 85 2830 ● Shenzhen 86 755 8418 6263 ● Shanghai 86 21 5424 5141 ● Hong Kong 852 9688 9767  
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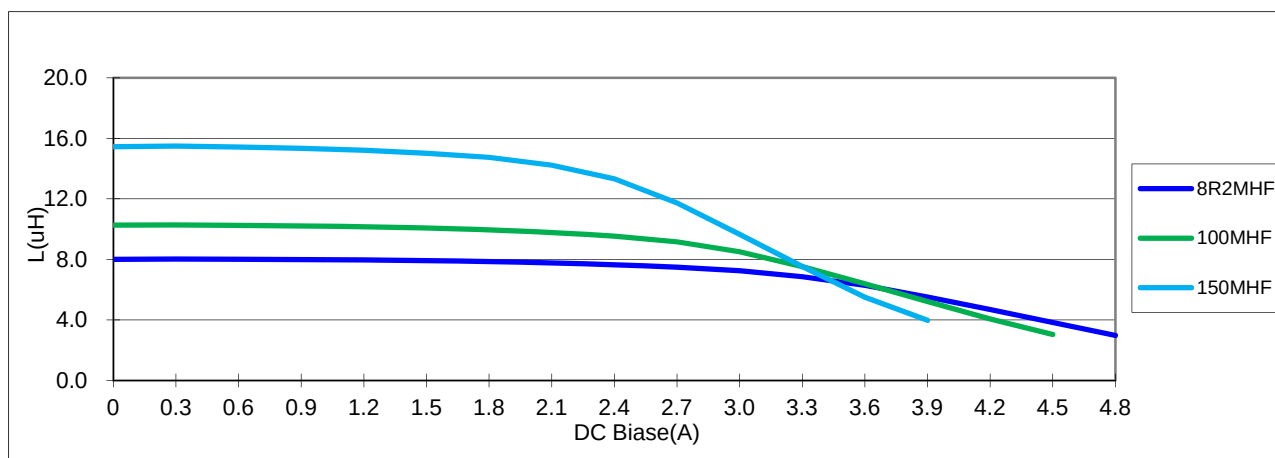
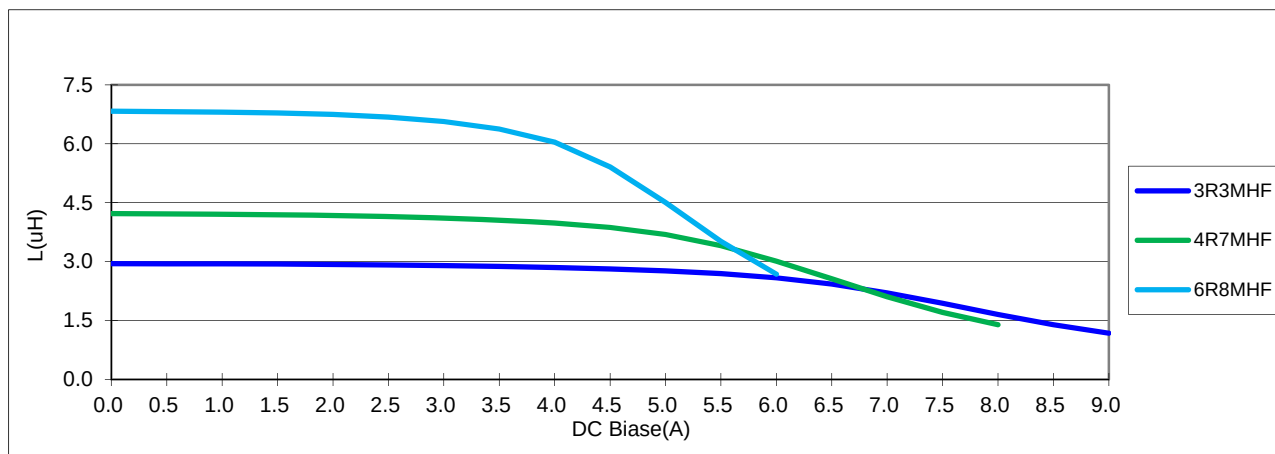
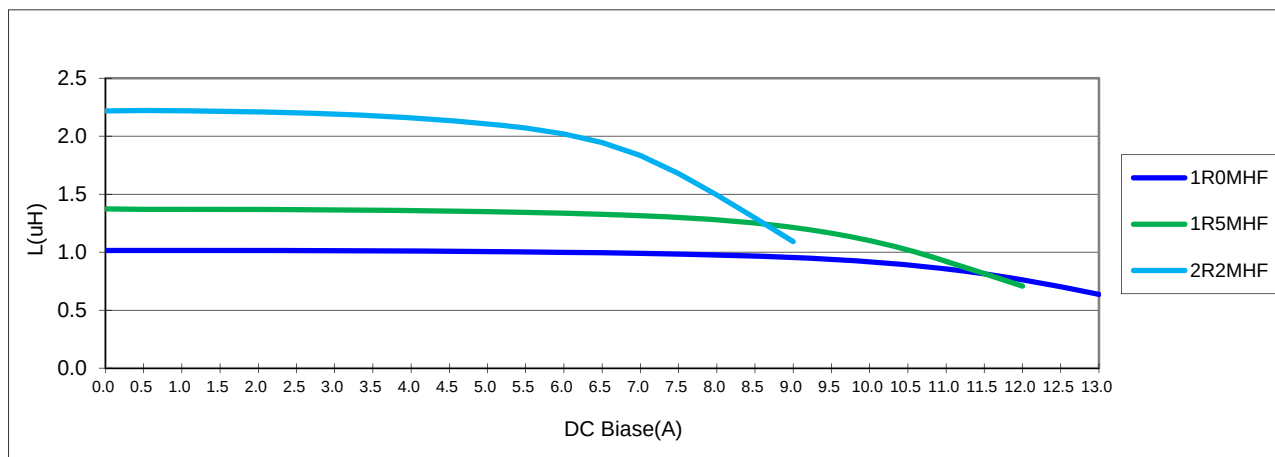
\*Due to continuous product improvement, all specifications are subject to change without prior notice. Kindly contact an ITG field application engineer or a sales representative prior to purchase.



# SDRH74B Series



## 4. Inductance Characteristics of SDRH74B Series (Inductance vs Current):



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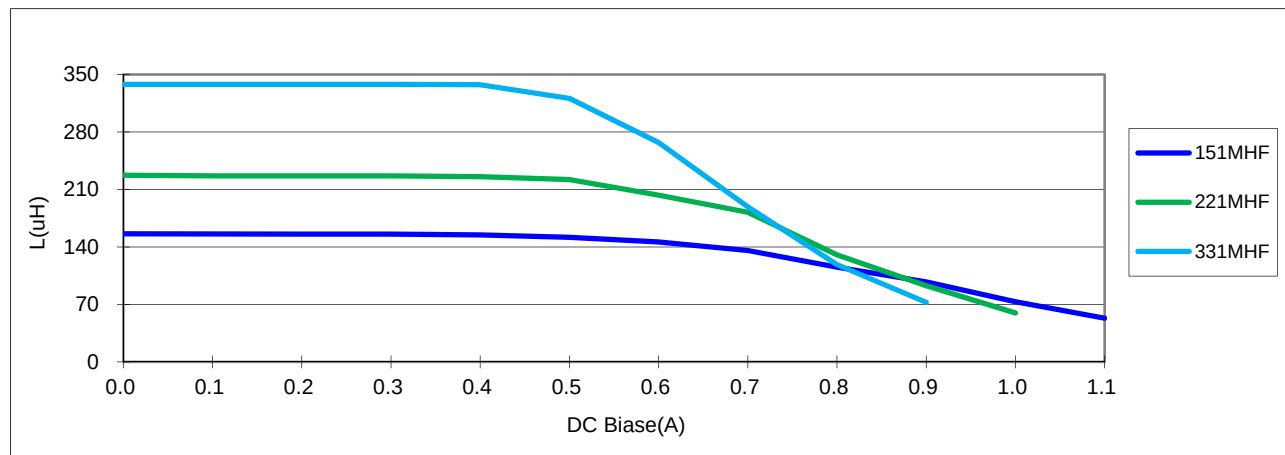
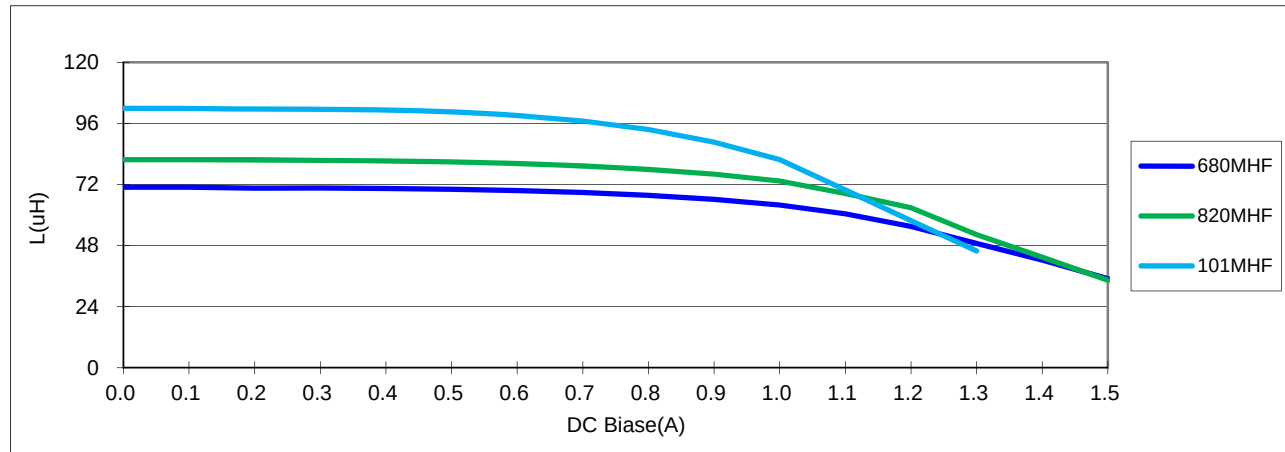
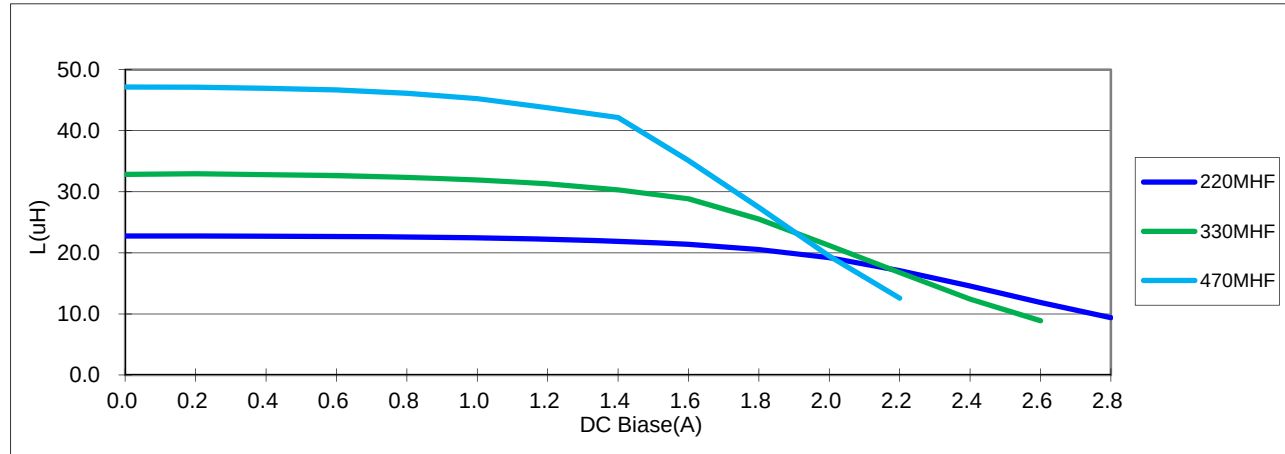
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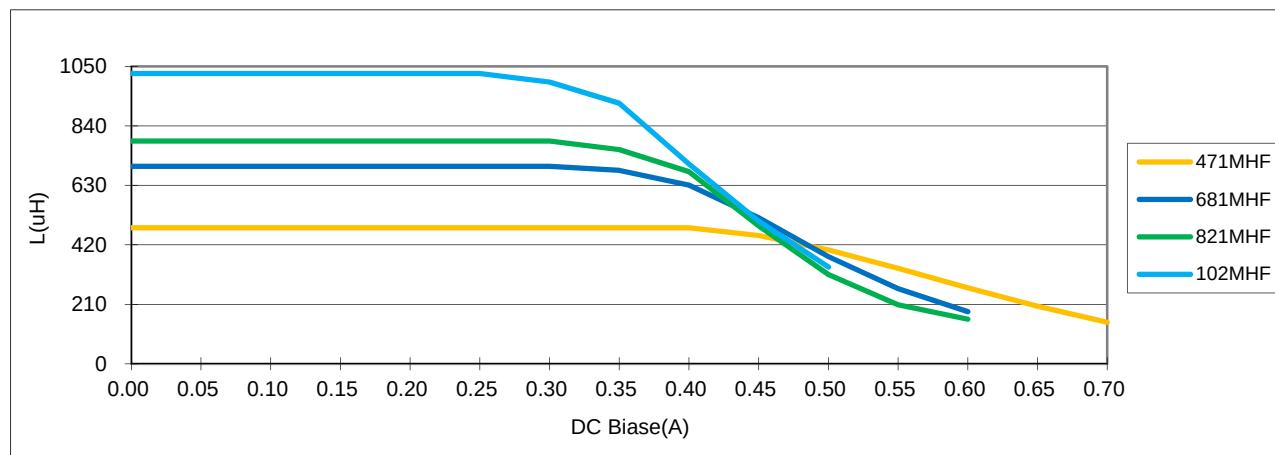
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