



# AHA47326A-R1 Series



## 1. Features of AHA47326A-R1 Series :

- Immersion cooling ready power beads.
- Inductance Range: 80.0nH to 120.0nH, Custom values are welcomed.
- High current output chokes, up to 105.0 Amp with approx. 20% roll off.
- Low Profile 8.00 mm Max. height .
- Foot Print 12.00 x 6.00 mm .
- Perfect for high density designs with limited board space.
- Operating frequency up to 5.0 MHz application.
- Operating Temperature Range -55° C to +130° C , RoHs & HF compliance .
- T & R Qty: 450 pcs , 13" Reel.



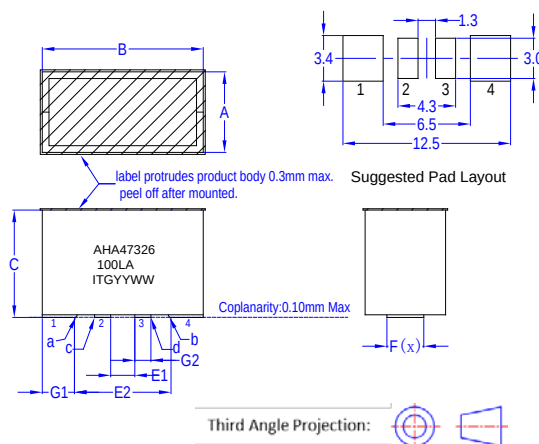
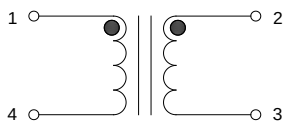
## 2. Electrical Characteristic of AHA47326A-R1 Series:

| ITG Part Number   | OCL <sup>1</sup> | L @ Isat1 <sup>2</sup> | DCR1 <sup>3</sup> | DCR2 <sup>3</sup> | Isat1 <sup>4</sup> | Isat2 <sup>4</sup> | Isat3 <sup>4</sup> | Irms1 <sup>5</sup> | Irms2 <sup>5</sup> |
|-------------------|------------------|------------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                   | Pin 1-4 & 2-3    | Pin 1-4 & 2-3          | Pin 1-4           | Pin 2-3           |                    |                    |                    | Pin 1-4            | Pin 2-3            |
|                   | (nH)<br>± 15%    | (nH)<br>Min.           | (mΩ)<br>± 10%     | (mΩ)<br>± 10%     | (A)<br>@25°C       | (A)<br>@75°C       | (A)<br>@100°C      | (A)<br>@25°C       | (A)<br>@25°C       |
| AHA47326A-80L-R1  | 80.00            | 57.60                  | 0.10              | 0.30              | 105.00             | 100.00             | 95.00              | 78.00              | 45.00              |
| AHA47326A-100L-R1 | 100.00           | 72.00                  | 0.10              | 0.30              | 85.00              | 78.00              | 75.00              | 78.00              | 45.00              |
| AHA47326A-120L-R1 | 120.00           | 86.40                  | 0.10              | 0.30              | 70.00              | 65.00              | 63.00              | 78.00              | 45.00              |

## 3. Mechanical Dimension(Unit : mm):

| A      | B      | C    | E1     | E2     | F(Pin1&4) | F(Pin2&3) |
|--------|--------|------|--------|--------|-----------|-----------|
| Max.   | Max.   | Max. | ± 0.20 | ± 0.20 | ± 0.20    | ± 0.20    |
| 6.00   | 12.00  | 8.00 | 1.80   | 7.00   | 2.80      | 2.40      |
| G1     | G2     |      |        |        |           |           |
| ± 0.20 | ± 0.20 |      |        |        |           |           |
| 2.40   | 1.00   |      |        |        |           |           |

### Schematic:



## Notes:

1. Open Circuit Inductance (OCL) test condition:500KHz,0.25Vrms,0Adc ,at 25 °C.
2. L @ Isat and L @ Irms Test condition:500KHz,0.25Vrms (Ta=25 °C).
3. The nominal DCR1 is measured from point "a" to point "b", as shown above on the mechanical drawing (Ta=25°C).  
The nominal DCR2 is measured from point "c" to point "d", as shown above on the mechanical drawing (Ta=25°C).
4. Isat1,Isat2 & Isat3 for OCL Pin 1-4 or 2-3: DC current that will cause inductance to drop approximately by 20%.
5. Irms: DC current for an approximate temperature rise of 40°C without core loss , Derating is necessary for AC currents.  
PCB pad layout , trace thickness and width , air-flow and proximity of other heat generating components will affect the temperature rise. It is recommended the part temperature not exceed 130 °C under worst case operating conditions verified in the end application.
6. High pot: 100Vdc, 1s, 3mA.
7. Please contact ITG Sales or FAE to discuss your immersion cooling solvent and manufacturing process, ITG engineers will verify each customer's immersion cooling PCBA process.

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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.

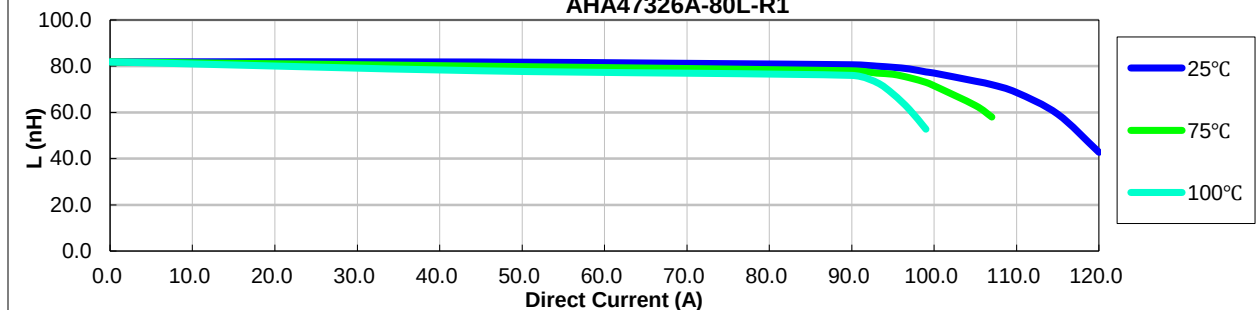


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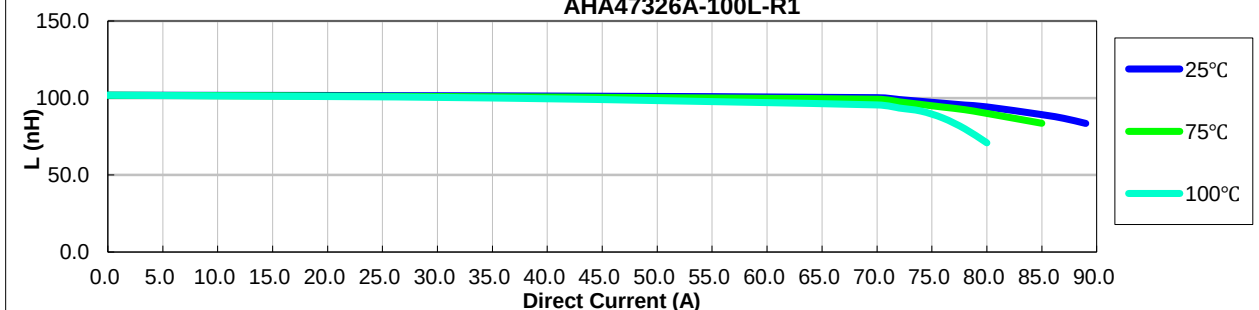


## 4. Inductance Characteristics (Inductance vs. Current):

AHA47326A-80L-R1



AHA47326A-100L-R1



AHA47326A-120L-R1

