

## 1. Features of AF24245A Series :

- Ferrite based SMD inductor with lower core loss.
- Inductance Range: 30.0nH to 35.0nH, Custom values are welcomed.
- High current output chokes, up to 120.0 Amp with approx. 20% roll off.
- Low Profile 6.00 mm Max. height .
- Foot Print 6.00 x 5.00 mm Max .
- 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 Qtys: 750 pcs , 13" Reel.

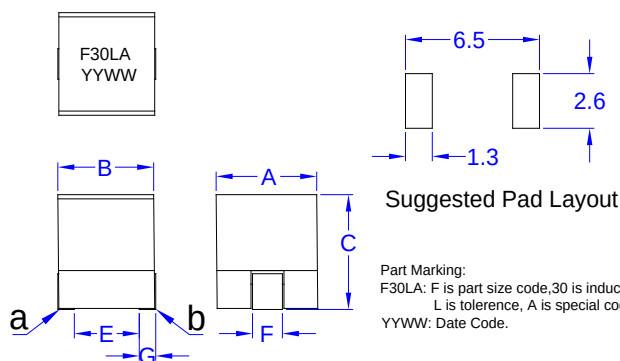


## 2. Electrical Characteristic of AF24245A Series:

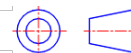
| ITG Part Number | OCL <sup>1</sup><br>(nH)<br>± 15% | L @ Isat1 <sup>2</sup><br>(nH)<br>Min. | DCR <sup>3</sup><br>(mΩ )<br>± 5% | Isat <sup>1</sup><br>(A)<br>@25°C | Isat2 <sup>4</sup><br>(A)<br>@45°C | Isat3 <sup>4</sup><br>(A)<br>@100°C | Irms <sup>5</sup><br>(A)<br>@25°C |
|-----------------|-----------------------------------|----------------------------------------|-----------------------------------|-----------------------------------|------------------------------------|-------------------------------------|-----------------------------------|
| AF24245A-30L    | 30.00                             | 21.60                                  | 0.185                             | 120.00                            | 110.00                             | 100.00                              | 50.00                             |
| AF24245A-35L    | 35.00                             | 25.20                                  | 0.185                             | 102.00                            | 93.00                              | 85.00                               | 50.00                             |

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

| A    | B    | C    | E     | F     | G     |
|------|------|------|-------|-------|-------|
| Max. | Max. | Max. | ± 0.2 | ± 0.2 | ± 0.2 |
| 5.00 | 6.00 | 6.00 | 4.20  | 2.00  | 0.80  |



Third Angle Projection:



## Notes:

1. Open Circuit Inductance (OCL) test condition: 100KHz, 0.1Vrms, 0A<sub>dc</sub> , at 25 °C.
2. L @ Isat and L @ Irms Test condition: 100KHz, 0.1Vrms (Ta=25 °C).
3. The nominal DCR is measured from point "a" to point "b", as shown above on the mechanical drawing (Ta=25°C).
4. Isat1, Isat2 & Isat3 : 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.

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

