

High Power Low Cost Inductors

- Insulation Resistance, Minimum 100 MΩ
- Operating Temperature Range -40°C to +125°C
- Ambient Temperature, Maximum 85°C
- Insulation System Class B, 130°C
- Temperature Rise, Maximum 40°C

Specifications @ 25 °C / Packaging

| Part Number | Inductance ⁽¹⁾ Control Value µH ±20% | Rated ⁽²⁾ Inductance µH Typ. | Rated Current Adc | DCR mΩ Max. | Dimensions (mm) | | Quantity Per Carton (Units) | |
|----------------------|--|--|-------------------------|-------------------|--------------------|--------------------|--------------------------------|---------------|
| | | | | | L / W / Ht | | Vert. Mount | Hor. Mount |
| | | | | | Vert. Mount | Hor. Mount | | |
| HM53-001R1_LF V or H | 1.44 | 1.1 | 14.0 | 3.0 | 23.0 / 14.0 / 23.0 | 23.0 / 23.0 / 14.0 | 360 | 300 |
| HM53-001R6_LF V or H | 1.72 | 1.6 | 8.0 | 4.0 | 16.0 / 11.0 / 16.0 | 16.0 / 16.0 / 11.0 | 560 | 500 |
| HM53-001R8_LF V or H | 2.6 | 1.8 | 15.0 | 3.5 | 23.0 / 14.0 / 23.0 | 23.0 / 23.0 / 14.0 | 360 | 180 |
| HM53-001R9_LF V or H | 2.7 | 1.9 | 10.0 | 5.1 | 17.5 / 11.4 / 17.5 | 17.5 / 17.5 / 11.4 | 660 | 500 |
| HM53-002R0_LF V or H | 2.8 | 2.0 | 8.5 | 4.8 | 16.0 / 9.0 / 16.0 | 16.0 / 16.0 / 9.0 | 560 | 500 |
| HM53-003R0_LF V or H | 4.4 | 3.1 | 13.5 | 4.5 | 24.5 / 14.0 / 24.5 | 24.5 / 24.5 / 14.0 | 360 | 320 |
| HM53-005R5_LF V or H | 7.9 | 5.5 | 8.5 | 8.9 | 20.5 / 13.0 / 20.5 | 20.5 / 20.5 / 13.0 | 360 | 180 |
| HM53-007R8_LF V or H | 11.1 | 7.8 | 5.7 | 12.9 | 17.0 / 13.5 / 17.0 | 17.0 / 17.0 / 13.5 | 450 | 500 |
| HM53-009R5_LF V or H | 13.5 | 9.5 | 9.0 | 8.1 | 23.0 / 19.0 / 23.0 | 23.0 / 23.0 / 19.0 | 180 | 210 |
| HM53-108R0_LF V or H | 10.1 | 8.0 | 3.0 | 10.5 | 16.2 / 8.5 / 16.2 | 16.2 / 16.2 / 8.5 | 660 | 500 |
| HM53-10180_LF V or H | 25.3 | 17.9 | 2.0 | 20.5 | 16.2 / 8.0 / 16.2 | 16.2 / 16.2 / 8.0 | 500 | 500 |
| HM53-10320_LF V or H | 50.3 | 32.3 | 2.6 | 59.1 | 16.2 / 9.0 / 16.2 | 16.2 / 16.2 / 9.0 | 560 | 500 |
| HM53-10650_LF V or H | 104.0 | 65.2 | 2.4 | 108.6 | 15.5 / 12.4 / 15.5 | 15.5 / 15.5 / 12.4 | 560 | 250 |
| HM53-10111_LF V or H | 151.7 | 106.4 | 2.3 | 165.9 | 20.7 / 9.4 / 20.7 | 20.7 / 20.7 / 9.4 | 360 | 300 |
| HM53-10171_LF V or H | 250.9 | 175.2 | 2.2 | 224.2 | 20.9 / 13.0 / 20.9 | 20.9 / 20.9 / 13.0 | 360 | 210 |
| HM53-10351_LF V or H | 505.0 | 354.3 | 1.9 | 375.1 | 24.0 / 15.3 / 24.0 | 24.0 / 24.0 / 15.3 | 180 | 140 |
| HM53-10531_LF V or H | 754.4 | 529.2 | 2.4 | 468.1 | 29.8 / 17.4 / 29.8 | 29.8 / 29.8 / 17.4 | 90 | 90 |
| HM53-10701_LF V or H | 1000.4 | 701.4 | 2.1 | 679.4 | 29.8 / 17.1 / 29.8 | 29.8 / 29.8 / 17.1 | 90 | 90 |
| HM53-208R0_LF V or H | 10.6 | 8.0 | 6.0 | 8.3 | 22.0 / 9.5 / 22.0 | 22.0 / 22.0 / 9.5 | 360 | 300 |
| HM53-20190_LF V or H | 25.0 | 19.1 | 4.0 | 20.3 | 22.0 / 9.0 / 22.0 | 22.0 / 22.0 / 9.0 | 360 | 300 |
| HM53-20350_LF V or H | 50.0 | 35.0 | 4.9 | 29.1 | 21.6 / 13.6 / 21.6 | 21.6 / 21.6 / 13.6 | 360 | 320 |
| HM53-20580_LF V or H | 73.9 | 58.1 | 2.5 | 59.9 | 22.0 / 9.0 / 22.0 | 22.0 / 22.0 / 9.0 | 360 | 300 |
| HM53-20710_LF V or H | 101.7 | 70.8 | 4.3 | 48.5 | 24.0 / 16.6 / 24.0 | 24.0 / 24.0 / 16.6 | 200 | 140 |
| HM53-20101_LF V or H | 148.0 | 103.6 | 4.0 | 70.5 | 30.6 / 11.4 / 30.6 | 30.6 / 30.6 / 11.4 | 90 | 135 |
| HM53-20171_LF V or H | 251.1 | 175.4 | 4.2 | 96.0 | 31.2 / 19.0 / 31.2 | 31.2 / 31.2 / 19.0 | 90 | 90 |
| HM53-20351_LF V or H | 499.4 | 349.0 | 3.3 | 183.0 | 36.7 / 14.8 / 36.7 | 36.7 / 36.7 / 14.8 | 45 | 75 |
| HM53-20521_LF V or H | 749.3 | 521.9 | 3.4 | 225.4 | 43.3 / 18.2 / 43.3 | 43.3 / 43.3 / 18.2 | 45 | 90 |
| HM53-306R8_LF V or H | 9.7 | 6.8 | 11.1 | 8.3 | 22.2 / 13.9 / 22.2 | 22.2 / 22.2 / 13.9 | 180 | 210 |
| HM53-30150_LF V or H | 21.3 | 14.9 | 9.3 | 17.8 | 24.5 / 16.6 / 24.5 | 24.5 / 24.5 / 16.6 | 200 | 140 |
| HM53-30350_LF V or H | 49.6 | 34.9 | 9.4 | 21.9 | 32.3 / 18.9 / 32.3 | 32.3 / 32.3 / 18.9 | 90 | 90 |
| HM53-30580_LF V or H | 78.0 | 58.5 | 4.0 | 40.9 | 30.0 / 13.0 / 30.0 | 30.0 / 30.0 / 13.0 | 200 | 140 |
| HM53-30690_LF V or H | 97.2 | 67.9 | 7.5 | 31.0 | 37.8 / 16.8 / 37.8 | 37.8 / 37.8 / 16.8 | 45 | 75 |
| HM53-30101_LF V or H | 150.6 | 105.4 | 7.5 | 45.6 | 46.4 / 19.8 / 46.4 | 46.4 / 46.4 / 19.8 | 45 | 90 |
| HM53-30181_LF V or H | 254.4 | 178.2 | 8.1 | 48.2 | 53.7 / 24.3 / 53.7 | 53.7 / 53.7 / 24.3 | 45 | 45 |
| HM53-407R0_LF V or H | 10.0 | 7.0 | 13.5 | 7.9 | 25.7 / 18.0 / 25.7 | 25.7 / 25.7 / 18.0 | 45 | 90 |
| HM53-40150_LF V or H | 21.0 | 14.7 | 14.5 | 11.5 | 32.4 / 19.8 / 32.4 | 32.4 / 32.4 / 19.8 | 90 | 90 |
| HM53-40360_LF V or H | 52.3 | 36.5 | 10.2 | 18.3 | 39.0 / 16.8 / 39.0 | 39.0 / 39.0 / 16.8 | 45 | 75 |
| HM53-40550_LF V or H | 74.5 | 54.8 | 6.0 | 26.1 | 35.0 / 16.0 / 35.0 | 35.0 / 35.0 / 16.0 | 90 | 90 |
| HM53-40710_LF V or H | 101.4 | 71.1 | 9.1 | 21.2 | 48.5 / 21.8 / 48.5 | 48.5 / 48.5 / 21.8 | 45 | 45 |
| HM53-40111_LF V or H | 152.8 | 106.8 | 10.5 | 29.8 | 54.5 / 25.4 / 54.5 | 54.5 / 54.5 / 25.4 | 45 | 45 |
| HM53-507R0_LF V or H | 10.0 | 7.0 | 20.9 | 5.6 | 34.0 / 21.4 / 34.0 | 34.0 / 34.0 / 21.4 | 90 | 75 |
| HM53-50150_LF V or H | 21.2 | 14.8 | 16.0 | 8.2 | 40.5 / 18.0 / 40.5 | 40.5 / 40.5 / 18.0 | 45 | 75 |
| HM53-50370_LF V or H | 52.4 | 36.7 | 12.7 | 15.2 | 47.5 / 21.3 / 47.5 | 47.5 / 47.5 / 21.3 | 45 | 45 |

Specification @ 25 °C / Packaging (Cont'd)

| Part Number | Inductance (1) Control Value μH ±20% | Rated (2) Inductance μH Typ. | Rated Current Adc | DCR mΩ Max. | Dimensions (mm) | | Quantity Per Carton (Units) | |
|----------------------|---|---------------------------------------|-------------------------|-------------------|--------------------|--------------------|--------------------------------|------------|
| | | | | | Vert. Mount | Hor. Mount | Vert. Mount | Hor. Mount |
| HM53-50550_LF V or H | 77.6 | 54.2 | 10.5 | 21.1 | 47.5 / 21.3 / 47.5 | 47.5 / 47.5 / 21.3 | 45 | 45 |
| HM53-50700_LF V or H | 99.4 | 69.5 | 13.0 | 13.6 | 57.0 / 27.5 / 57.0 | 57.0 / 57.0 / 27.5 | 45 | 45 |
| HM53-607R0_LF V or H | 9.9 | 6.9 | 29.3 | 4.3 | 50.3 / 24.0 / 50.3 | 50.3 / 50.3 / 24.0 | 45 | 45 |
| HM53-60130_LF V or H | 19.2 | 13.5 | 29.5 | 4.8 | 59.0 / 28.0 / 59.0 | 59.0 / 59.0 / 28.0 | 45 | 45 |
| HM53-60350_LF V or H | 50.2 | 35.1 | 21.0 | 9.2 | 63.0 / 36.0 / 63.0 | 63.0 / 63.0 / 36.0 | 20 | 20 |

Notes: (1) Inductance is measured at 100kHz, 0.1V without DC current.
 (2) Value with rated DC current and the operating $E_{T_{OP}}$ across the inductor.

Outline Dimensions (mm)

Figure 1 Vertical Mount

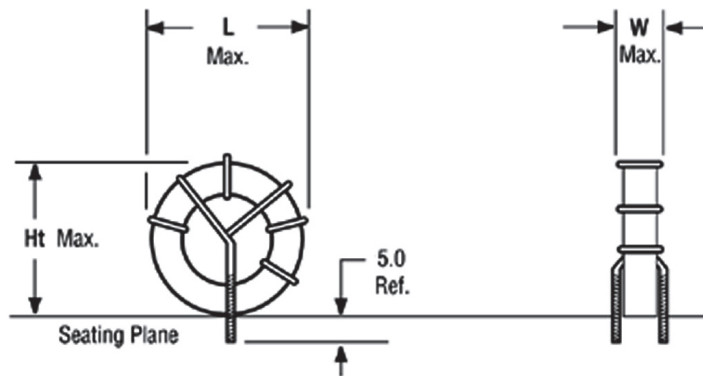
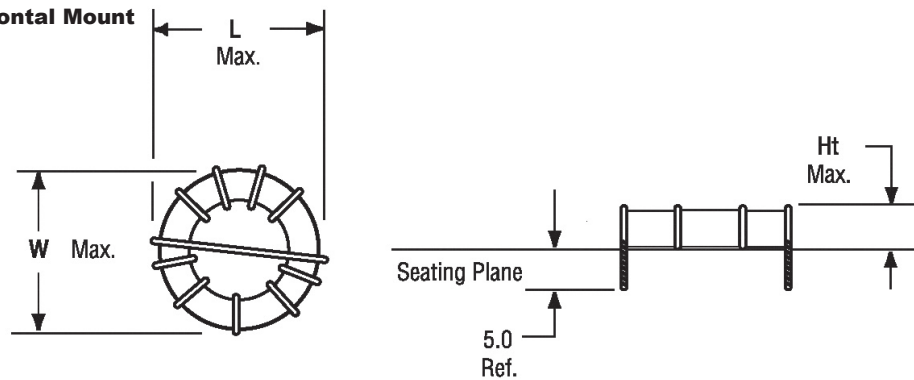
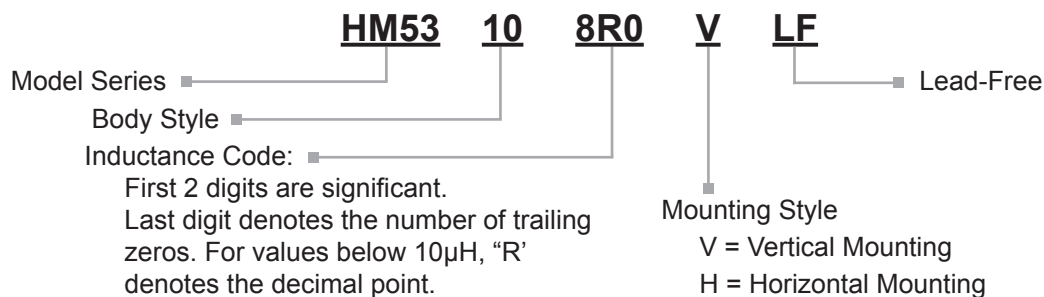


Figure 2 Horizontal Mount

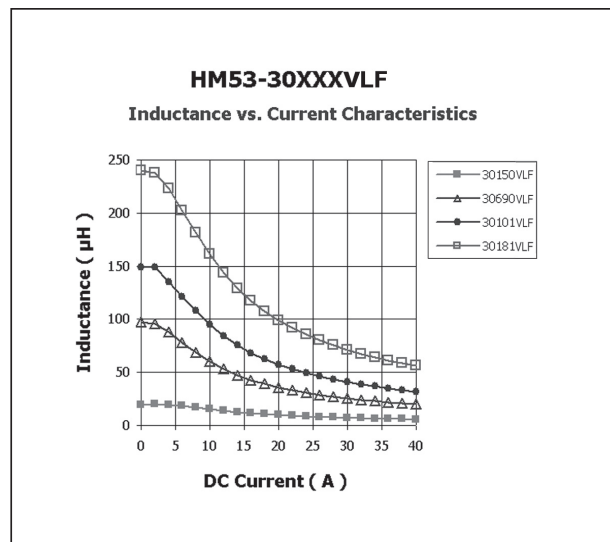
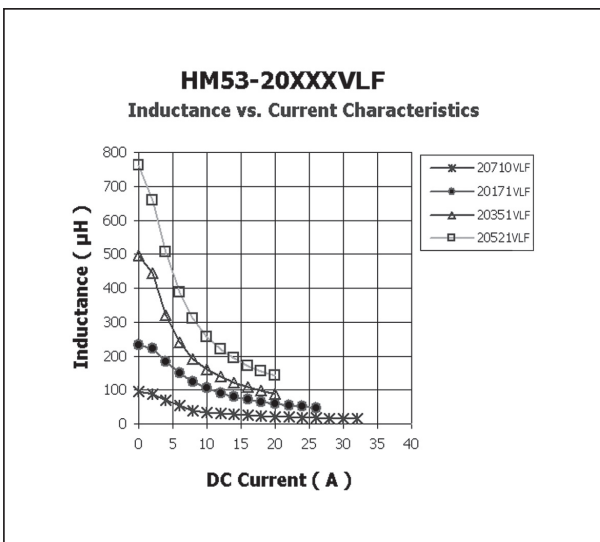
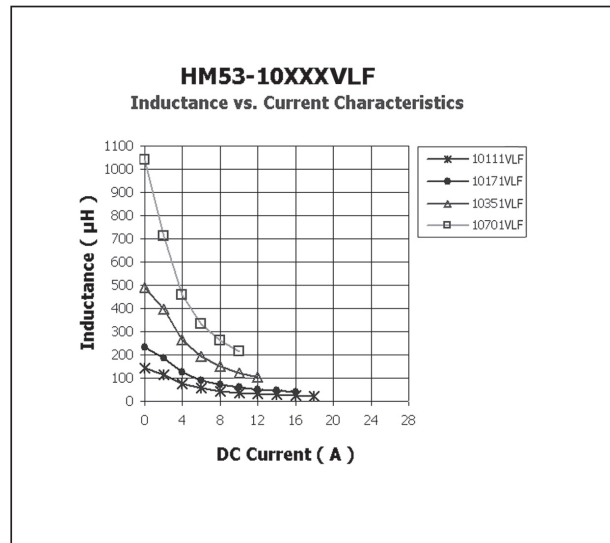
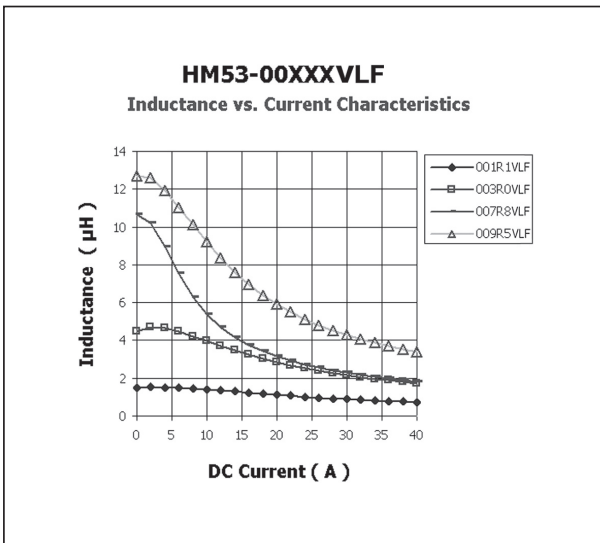


Refer to Specifications table for 'L', 'W' & 'Ht' dimensions of each model.

Ordering Information



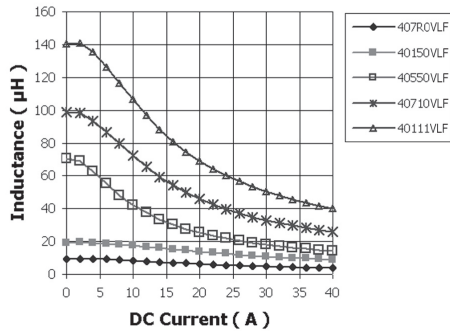
Electrical Characteristics @ 25 °C



Electrical Characteristics @ 25 °C (Cont'd)

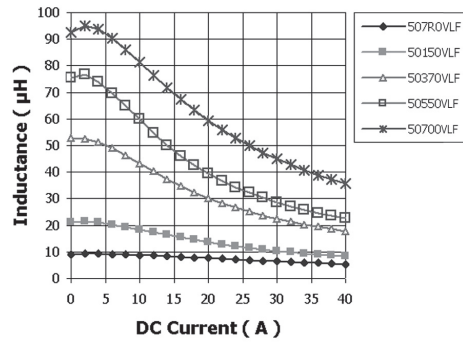
HM53-40XXXVLF

Inductance vs. Current Characteristics



HM53-50XXXVLF

Inductance vs. Current Characteristics



HM53-60XXXVLF

Inductance vs. Current Characteristics

