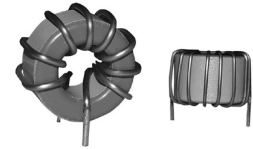


## Electrical / Environmental

- Insulation Resistance, Minimum 100 M $\Omega$
- Operating Temperature Range -40°C to +125°C
- Ambient Temperature, Maximum 85°C
- Insulation System Class B, 130°C
- Temperature Rise, Maximum 40°C
- Operating Frequency Up to 400kHz

# HM53

High Power Low Cost Inductors



## Specifications @ 25°C / Packaging

Part Number	Inductance <sup>(1)</sup> Rated <sup>(2)</sup>		DCR m $\Omega$ Max.	Dimensions (mm)		Quantity Per Carton (Units)		
	Control Value	Inductance		Rated Current	L / W / Ht		Vert. Mount	Hor. Mount
	$\mu$ H $\pm$ 20%	$\mu$ H Typ.		Adc	Vert. Mount	Hor. Mount	Vert. Mount	Hor. Mount
HM53-000R8VLF	1.23	0.8	15.0	2.5	14.0 / 8.5 / 14.0	-	660	-
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
HM53-101R5VLF	2.7	1.5	15.0	3.3	18.0 / 10.0 / 18.0	-	560	-
HM53-101R6VLF	4.0	1.6	21.0	6.5	17.0 / 9.0 / 17.0	-	560	-
HM53-103R3VLF	4.0	3.3	10.0	10.0	15.0 / 8.0 / 15.0	-	560	-
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
HM53-10101VLF	121.0	100.0	5.0	67.0	27.0 / 16.5 / 27.0	-	240	-
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

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

Part Number	Inductance <sup>(1)</sup> Control Value μH ±20%	Rated <sup>(2)</sup> Inductance μH Typ.	Rated Current Adc	DCR mΩ Max.	Dimensions (mm)		Quantity Per Carton (Units)	
					Vert. Mount	Hor. Mount	Vert. Mount	Hor. Mount
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
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

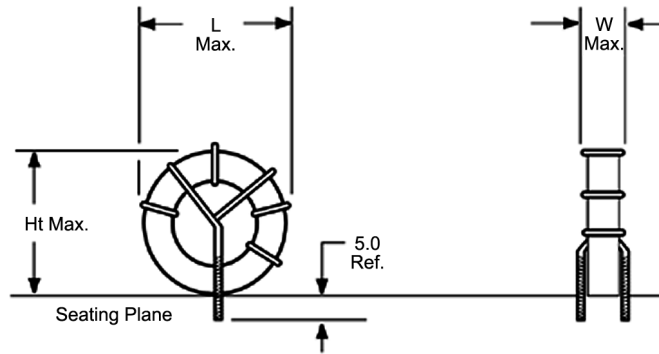
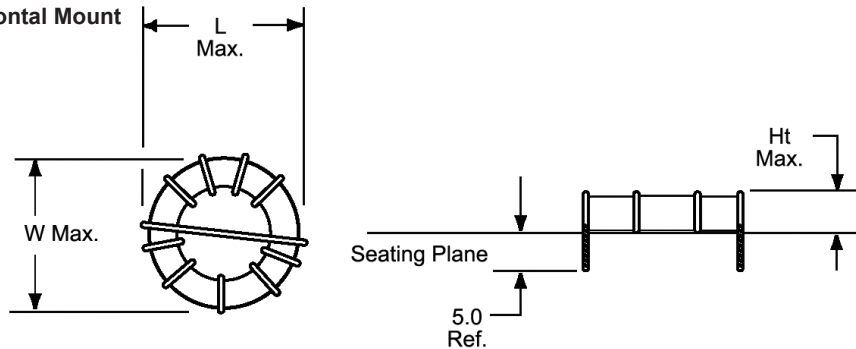
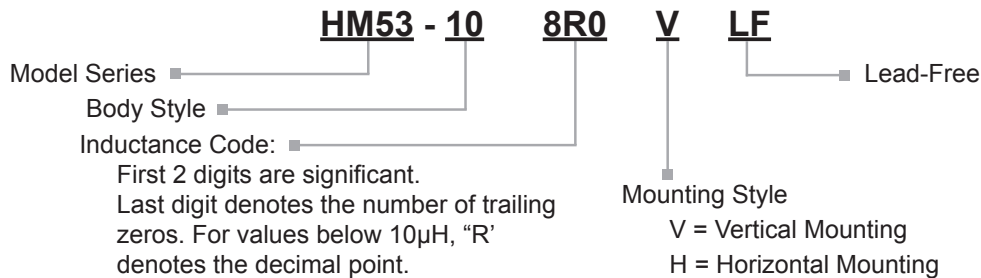


Figure 2 Horizontal Mount



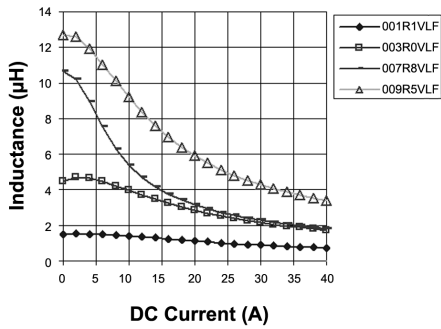
Refer to Specifications table for 'L', 'W' & 'Ht' dimensions of each model.

### Ordering Information

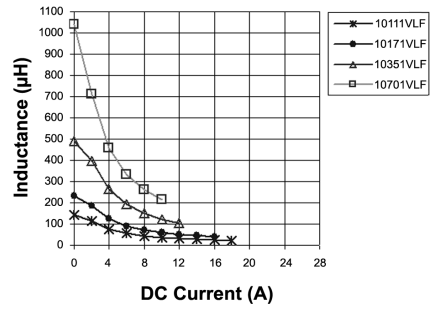


## Electrical Characteristics @ 25°C

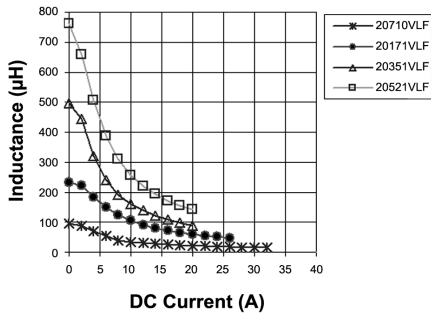
**HM53-00XXXVLF**  
Inductance vs. Current Characteristics



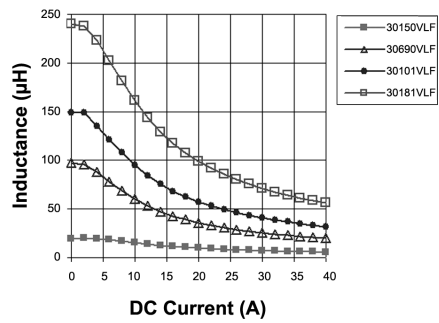
**HM53-10XXXVLF**  
Inductance vs. Current Characteristics



**HM53-20XXXVLF**  
Inductance vs. Current Characteristics

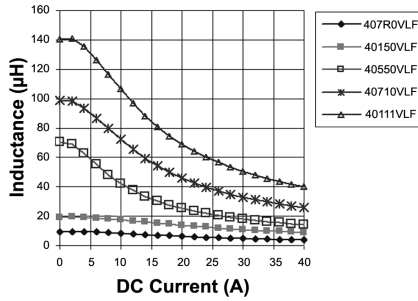


**HM53-30XXXVLF**  
Inductance vs. Current Characteristics

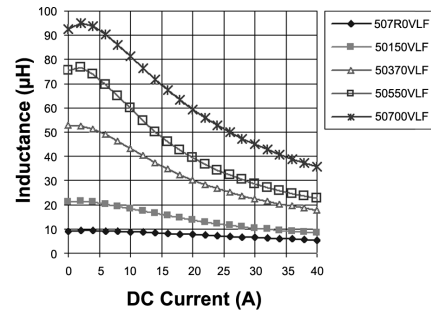


## Electrical Characteristics @ 25°C (Cont'd)

**HM53-40XXXVLF**  
Inductance vs. Current Characteristics



**HM53-50XXXVLF**  
Inductance vs. Current Characteristics



**HM53-60XXXVLF**  
Inductance vs. Current Characteristics

