

Electrical / Environmental

- Operating Temperature Range -40°C to +155°C
- Temperature Rise, Maximum 50°C
- Insulation System Class F, 155°C
- Operating Frequency Up to 400kHz



HM54

High Current Toroidal Inductors



Specifications

Part Number	Inductance 100 kHz, 0.1 V		Heating (1) Current (Adc)	I _{sat} (2) (Adc)	DCR (3) mΩ Max.	Dim. A (Inch/mm)	Dim. P (Inch/mm)	Fig.
	@ 0 Adc μH ± 10%	@ I _{sat} μH Typ.						
HM54-44R42VLF	0.42	0.38	32	32	1.15	.099/2.5	284/7.2	1
HM54-44R42HLF	0.42	0.38	32	32	1.15	.099/2.5	228/5.8	2
HM54-45R41VLF	0.41	0.35	33	33	0.70	.099/2.5	335/8.5	1
HM54-45R41HLF	0.41	0.35	33	33	0.70	.099/2.5	256/6.5	2
HM54-5BR51VLF	0.51	0.42	32	42	0.75	.126/3.2	386/9.8	1
HM54-5BR51HLF	0.51	0.42	32	42	0.75	.126/3.2	284/7.2	2
HM54-50R60VLF	0.60	0.50	31	32	1.1	.114/2.9	370/9.4	1
HM54-50R60HLF	0.60	0.50	31	32	1.1	.114/2.9	322/8.2	2
HM54-50R86VLF	0.86	0.61	27	27	1.6	.099/2.5	370/9.4	1
HM54-50R86HLF	0.86	0.61	27	27	1.6	.099/2.5	322/8.2	2
HM54-60R86VLF	0.86	0.71	35	41	1.1	.126/3.2	386/9.8	1
HM54-60R86HLF	0.86	0.71	35	41	1.1	.126/3.2	362/9.2	2

- Notes: (1) The heating current is the DC current which causes the component temperature to increase by approximately 50°C. This current is determined by soldering the component on a typical application PCB, and then applying the current to the component for 30 minutes.
- (2) I_{sat} is the saturation current at which inductance rolls off approximately 30% from its initial value.
- (3) DC resistance is measured at 25°C.

Outline Dimensions (Inch/mm)

Figure 1 (Vertical Mount)

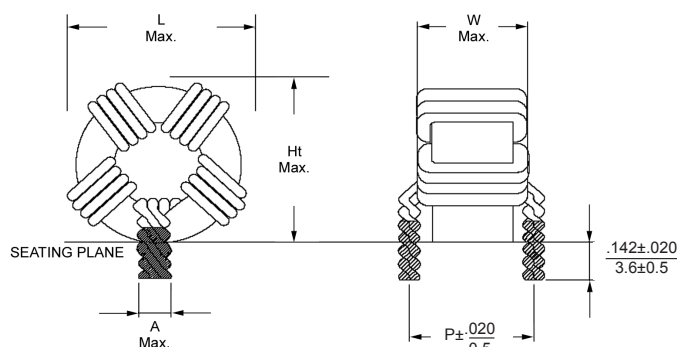
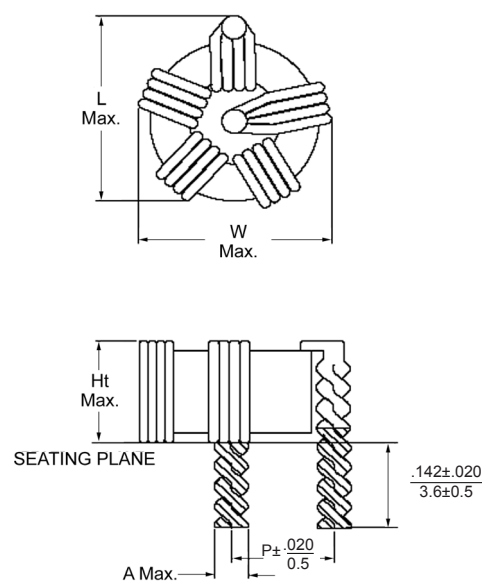


Figure 2 (Horizontal Mount)

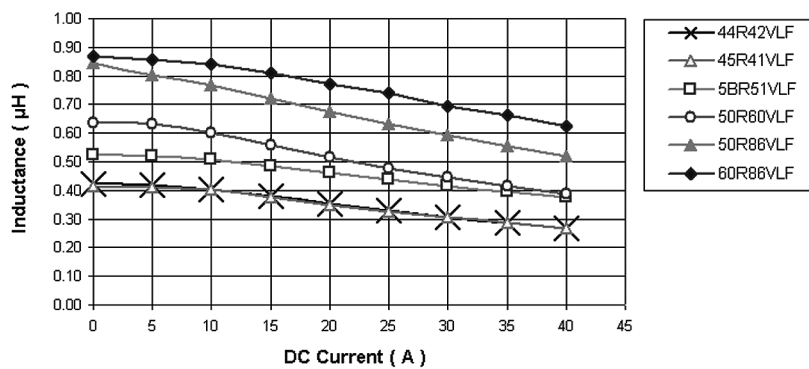


Body Style	Vertical Mount				Horizontal Mount			
	Fig.	L	W	Ht	Fig.	L	W	Ht
44	1	.570 14.48	.260 6.61	.510 12.95	2	.570 14.48	.570 14.48	.260 6.61
45	1	.610 15.50	.295 7.50	.510 12.95	2	.610 15.50	.610 15.50	.295 7.50
50	1	.640 16.25	.300 7.61	.570 14.48	2	.640 16.25	.640 16.25	.300 7.61
5B	1	.690 17.53	.380 9.65	.590 14.98	2	.690 17.53	.690 17.53	.380 9.65
60	1	.760 19.30	.360 9.14	.680 17.27	2	.760 19.30	.760 19.30	.360 9.14

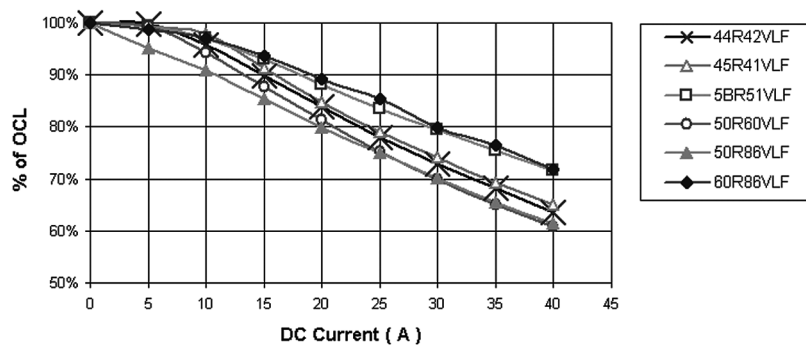
Refer to Specifications table for 'A' & 'P' dimensions of each model.

Electrical Characteristics @ 25°C

Inductance vs. Current Characteristics



Inductance Rolloff vs. Current Characteristics



Packaging

Standard: Vacuum Tray

	Body Style	Capacity Per Tray (Units)	Capacity Per Carton (Units)
44	Figure 1 (Vertical Mount)	50	800
	Figure 2 (Horizontal Mount)	40	560
45	Figure 1 (Vertical Mount)	50	800
	Figure 2 (Horizontal Mount)	40	560
50	Figure 1 (Vertical Mount)	40	560
	Figure 2 (Horizontal Mount)	40	560
5B	Figure 1 (Vertical Mount)	44	660
	Figure 2 (Horizontal Mount)	50	500
60	Figure 1 (Vertical Mount)	30	360
	Figure 2 (Horizontal Mount)	50	500

Ordering Information

