

High Current Toroidal Inductors

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

Specifications

Part Number	Inductance 100 kHz, 0.1 V		Heating ⁽¹⁾		DCR ⁽³⁾ mΩ Max.	Dim. A (Inch/mm)	Dim. P (Inch/mm)	Fig.
	@ 0 Adc μH ± 10%	@ I _{sat} μH Typ.	Current (Adc)	I _{sat} ⁽²⁾ (Adc)				
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 apply 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)

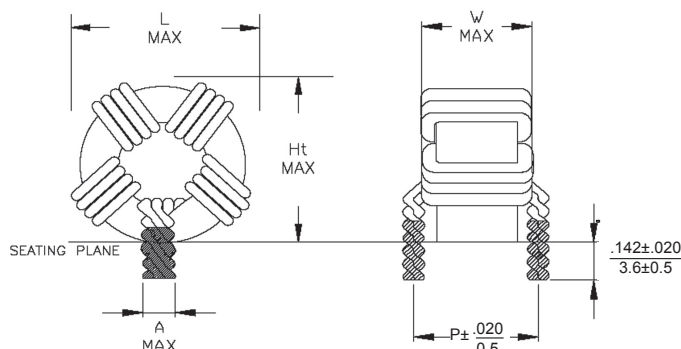
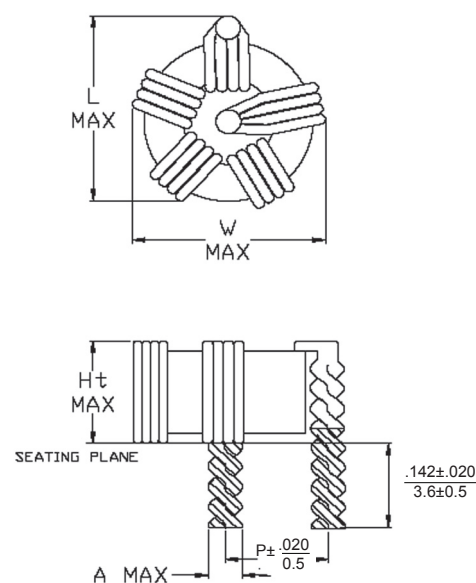


Figure 2 (Horizontal Mount)

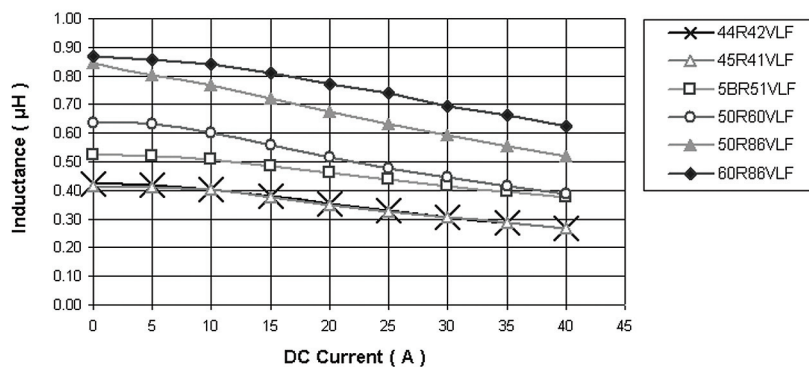


Body Style	Vertical Mount				Horizontal Mount			
	Fig.	L	W	Ht	Fig.	L	W	Ht
44	1	.570	.260	.510	2	.570	.570	.260
		14.48	6.61	12.95		14.48	14.48	6.61
45	1	.610	.295	.510	2	.610	.610	.295
		15.50	7.50	12.95		15.50	15.50	7.50
50	1	.640	.300	.570	2	.640	.640	.300
		16.25	7.61	14.48		16.25	16.25	7.61
5B	1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

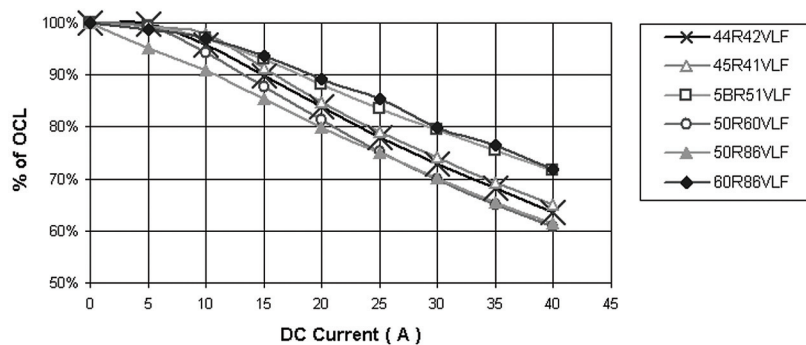
Refer to Specifications table for 'A' & 'P' dimensions of each model.

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	450
	Figure 2 (Horizontal Mount)	50	500

Ordering Information

