Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!
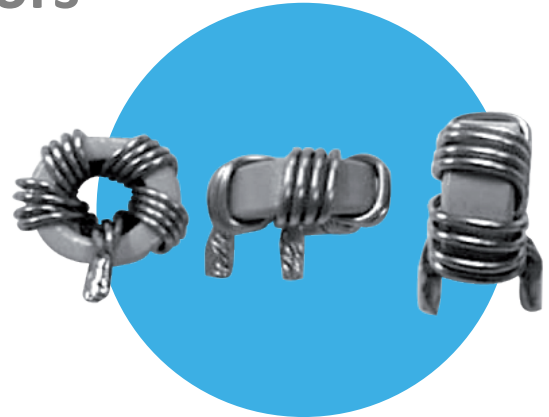

Contact us

Magnetics

High Current Toroidal Inductors

Model HM54

Features and Benefits

- Operating Temperature Range -40°C to +155°C
- Temperature Rise, Maximum 50°C
- Operating Frequency Up to 400kHz
- RoHS Compliant

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) Isat 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)
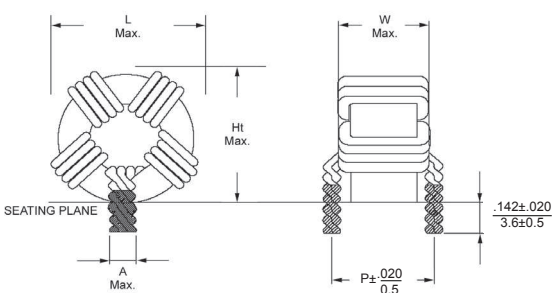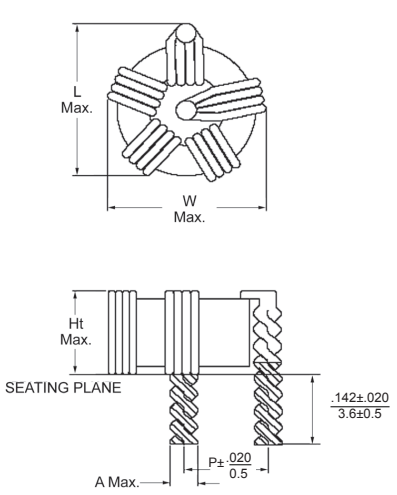

Figure 1 (Vertical Mount)

Figure 2 (Horizontal Mount)

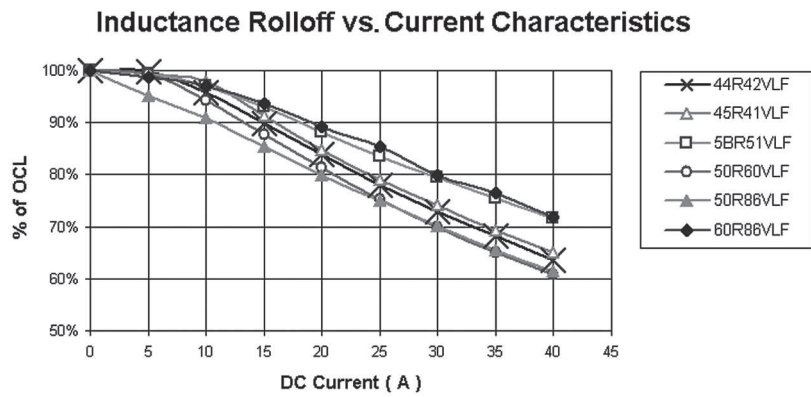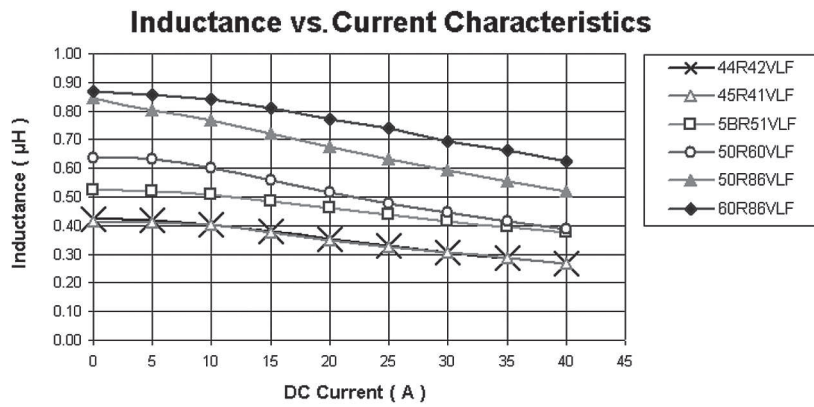| Body Style	Verticle Mount				Horizontal Mount			
	Fig	L	W	Ht	Fig	L	W	Ht
44	1	.570 / 14.48	.260 / 6.61	.510 / 12.95	2	.570 / 14.48	.570 . / 14.48	.260 / 6.61
45	1	.610 / 15.50	.295 / 7.50	.510 / 12.95	2	.610 / 15.50	.610 / 15.50	.295 / 7.50
50	1	.610 / 16.25	.300 / 7.61	.570 / 14.48	2	.640 / 16.25	.640 / 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.
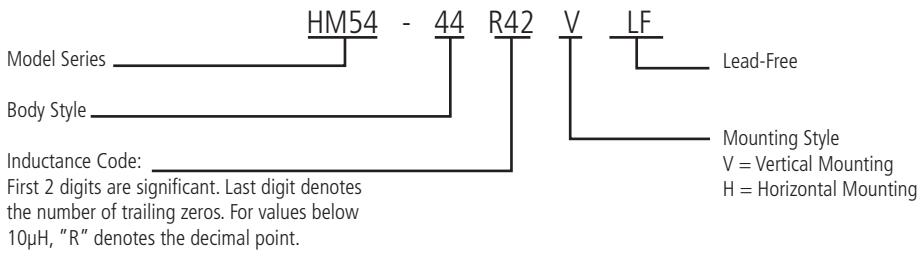
General Note
TT Electronics reserves the right to make changes in product specification without notice or liability.

All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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TT Electronics
Make Possible

Model HM54

Electrical Characteristics @ 25°C

Inductance vs. Current Characteristics

Legend:
- 44R42VLF
- 45R41VLF
- 5BR51VLF
- 50R60VLF
- 50R86VLF
- 60R86VLF

Inductance Rolloff vs. Current Characteristics

Legend:
- 44R42VLF
- 45R41VLF
- 5BR51VLF
- 50R60VLF
- 50R86VLF
- 60R86VLF

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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

HM54 - 44 R42 V LF

Model Series

Body Style

Inductance Code:
First 2 digits are significant. Last digit denotes the number of trailing zeros. For values below 10µH, "R" denotes the decimal point.

Lead-Free

Mounting Style
V = Vertical Mounting
H = Horizontal Mounting

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