Magnetics

Electronics

Make Possible

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

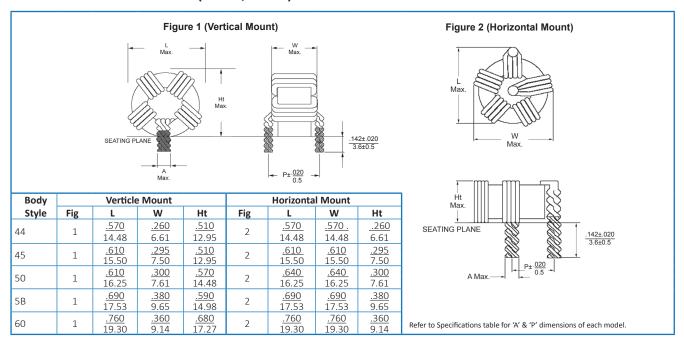
Notes: (1) The heating current is the DC current which causes the component temperature to increase by approximately 50°C.

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)



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.



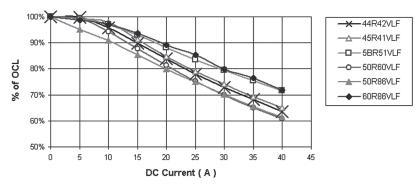
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Electrical Characteristics @ 25°C

Inductance vs. Current Characteristics 1.00 **-x**−44R42VLF 0.90 —∆— 45R41VLF 0.80 Inductance (µH) —□— 5BR51VLF 0.70 -50R60VLF 0.60 <u>→</u> 50R86VLF 0.50 0.40 0.30 0.20 0.10 0.00 DC Current (A)

Inductance Rolloff vs. Current Characteristics



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Packaging

		Vacuum Tray			
Standard		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	
	50	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	
	60	Figure 2 (Horizontal Mount)	50	500	

Ordering Information

