



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

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Electrical / Environmental

- Operating Temperature Range -40°C to +180°C
- Temperature Rise, Maximum 50°C
- Operating Frequency Up to 400kHz

HM70

High Power Shielded Low Profile
Surface Mount Inductors



Specifications

Part Number	Inductance 100kHz, 0.1V			DCR ⁽¹⁾ (mΩ)		I _{sat} ⁽²⁾ @ 25°C (Adc)	Heating ⁽³⁾ Current (Adc) ΔT=50°C	Core Loss ⁽⁴⁾ Factor		Fig.
	@ 0 Adc (μH ± 20%) Typ.	@ I _{sat} (μH) Min.	@ I _{sat} (μH) Typ.	Typ.	Max.			K1	K2	
HM70-101R0LF	1.00	0.63	0.70	2.53	2.90	16	15	9.07E-11	170.67	1
HM70-201R3LF	1.33	0.93	1.16	3.38	3.74	16	13	1.24E-10	157.15	1
HM70-201R9LF	1.94	1.28	1.60	4.71	5.42	12	11	1.24E-10	189.83	1
HM70-25R80LF	0.83	0.488	0.61	1.75	2.01	18	19	1.51E-10	118.84	1
HM70-301R5LF	1.50	0.80	1.00	2.16	2.48	16	17	1.40E-10	183.07	1
HM70-302R0LF	2.10	1.12	1.40	3.48	4.00	12	14	1.53E-10	196.09	1
HM70-31R65LF	0.65	0.48	0.54	1.80	2.50	16	19	1.53E-10	60.69	1
HM70-311R0LF	1.00	0.60	0.90	2.16	2.48	16	17	1.53E-10	93.38	1
HM70-321R3LF	1.30	0.80	1.00	2.16	2.48	16	17	1.66E-10	140.35	1
HM70-33R75LF	0.75	0.50	0.61	1.40	1.50	16	22	1.53E-10	70.03	1
HM70-341R3LF	1.30	0.80	1.00	2.16	2.48	20	18	1.53E-10	121.39	1
HM70-351R5LF	1.50	0.97	1.20	4.00	4.50	18	13	1.35E-10	166.20	2
HM70-401R2LF	1.20	0.92	1.02	1.75	1.80	18	22	1.80E-10	129.45	2
HM70-401R6LF	1.60	1.15	1.44	2.13	2.36	20	20	1.67E-10	151.67	2
HM70-431R9LF	1.90	1.50	1.70	2.00	2.20	15	20	1.67E-10	172.04	2
HM70-455R6LF	5.60	4.45	5.00	5.00	6.00	8	13	1.67E-10	507.07	2
HM70-50R70LF	0.70	0.40	0.52	1.05	1.26	30	31	1.99E-10	88.15	2
HM70-501R2LF	1.20	0.80	0.90	1.68	2.00	24	25	1.99E-10	110.82	2
HM70-505R0LF	5.00	3.60	4.30	6.50	8.00	7	13	2.21E-10	219.63	2
HM70-50100LF	10.0	6.80	8.00	12.0	15.0	7	9	2.21E-10	316.67	2
HM70-601R2LF	1.20	0.80	1.00	1.37	1.58	20	28	2.21E-10	108.94	2
HM70-602R0LF	2.00	1.20	1.60	2.20	2.60	15	22	2.21E-10	143.34	2

Notes: (1) DC resistance is measured at 25°C.

(2) The saturation current (I_{sat}) is the current at which the inductance will be decreased by 20% from its initial (zero DC) value.

(3) 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 device for 30 minutes.

(4) Core Loss approximation is based on published core data:

$$\text{Core Loss (Pfe)} = K1 * (f)^{1.338} * (K2\Delta I)^{2.2546}$$

Where: core loss in watt

K1 and K2 = core loss factor

K2ΔI = one half of the peak to peak flux density across the component in Gauss

f = frequency in kHz

ΔI = delta I across the component in Amp.

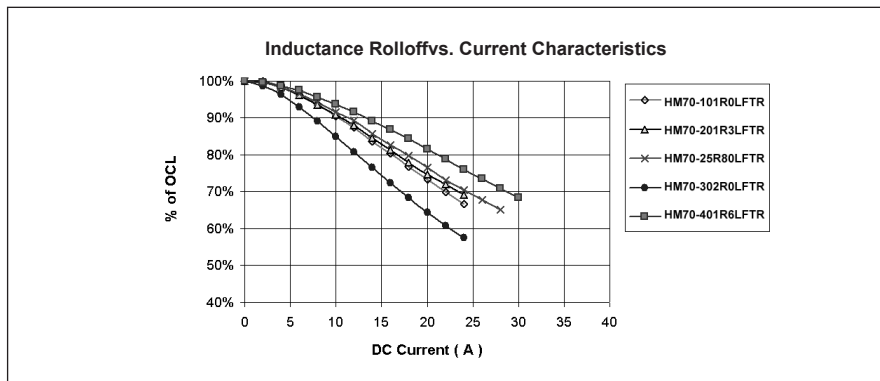
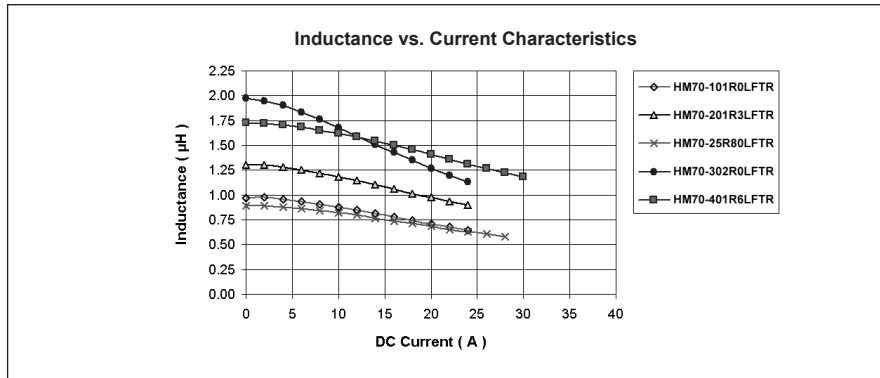
Packaging

Standard: Embossed Tape & Reel

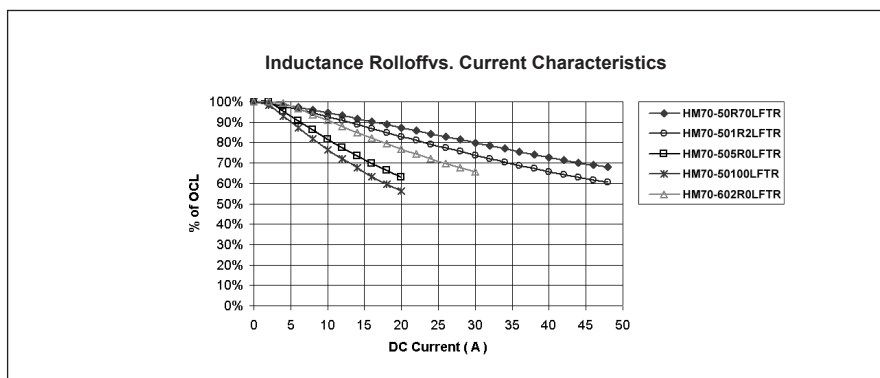
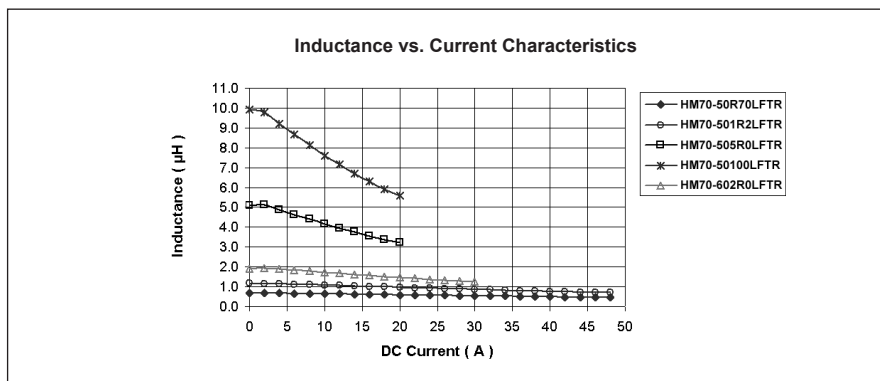
Reel:	Diameter:	=	13" (330.2mm)
	Capacity:	Case size 10,20,25,30,31,32,33,34	= 500 Units
		Case size 35,40,43,45,50,60	= 400 Units

Electrical Characteristics @ 25°C

(A) Case size 10, 20, 25, 30 & 40



(B) Case size 50 & 60



Outline Dimensions (mm)

Figure 1

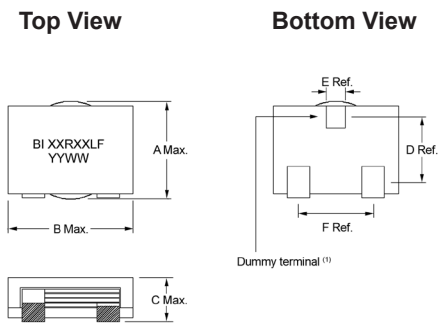
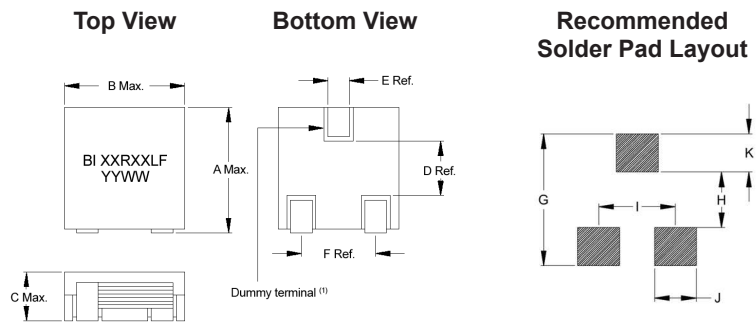


Figure 2



Note: (1) Dummy terminal should not be used for any electrical connection.

Case size	A	B	C	D	E	F	G	H	I	J	K
10	9.00	10.5	3.70	4.80	1.70	6.00	8.30	2.30	6.00	2.80	3.00
20	9.00	10.5	4.50	4.80	1.70	6.00	8.00	2.00	6.00	2.80	3.00
25	9.00	10.5	5.00	4.80	1.70	6.00	8.30	2.30	6.00	2.80	3.00
30	9.00	10.5	5.35	4.80	1.70	6.00	8.00	2.00	6.00	2.80	3.00
31	9.00	10.5	5.40	4.80	1.70	6.00	8.00	2.00	6.00	2.80	3.00
32	9.00	10.5	5.60	4.80	1.70	6.00	8.00	2.00	6.00	2.80	3.00
33	9.00	10.5	5.70	4.80	1.70	6.00	8.00	2.00	6.00	2.80	3.00
34	9.00	10.5	5.80	4.80	1.70	6.00	8.00	2.00	6.00	2.80	3.00
35	10.7	10.25	4.20	5.60	1.70	6.00	10.60	5.60	6.20	2.10	2.50
40	11.0	12.6	5.20	6.20	2.30	7.50	10.70	3.70	7.50	3.10	3.50
43	10.1	12.5	5.75	4.77	2.30	7.32	10.31	4.17	7.32	2.95	2.84
45	10.1	12.5	6.60	4.60	2.30	7.32	10.31	4.00	7.32	2.74	3.15
50	13.5	12.9	5.50	6.50	2.30	7.50	13.50	6.50	7.50	3.00	3.50
60	14.0	13.0	5.80	6.50	2.30	7.50	14.00	6.50	7.50	3.00	3.50

Ordering Information



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