

Electrical / Environmental

- Operating Temperature Range -40°C to +155°C
- Ambient Temperature, Maximum 80°C
- Temperature Rise, Maximum 50°C
- Operating Frequency Up to 400kHz
(For HM73-SXXXXLF models) Up to 800kHz

HM73 Shielded Low Profile Surface Mount Inductors



Specifications @ 25°C

Part Number	Inductance 100 kHz 0.1V		I _{rated} ⁽¹⁾ Rated Current Amps	Heating ⁽²⁾ Current Amps	I _{sat} ⁽³⁾ Saturation Current Amps	DC Resistance		Height Inch/mm Max.	Figure
	@ 0 Adc µH ± 20%	@ I _{rated} µH Typ.				mΩ Typ.	mΩ Max.		
HM73-10R10LF	0.10	0.09	22.0	26.7	38.0	1.40	1.65	.138/3.50	2
HM73-10R10LLF	0.10	0.09	22.0	28.0	38.0	1.20	1.40	.124/3.15	1
HM73-10R20LF	0.22	0.20	17.0	23.0	23.0	1.80	2.10	.138/3.50	2
HM73-10R20LLF	0.22	0.20	17.0	23.0	23.0	1.80	2.10	.124/3.15	1
HM73-10R47LF	0.47	0.42	15.0	19.2	23.0	2.70	3.16	.158/4.00	1
HM73-10R68LF	0.68	0.64	12.0	14.9	28.0	4.50	5.20	.158/4.00	1
HM73-101R0LF	1.00	1.00	8.5	14.9	15.0	5.20	7.00	.158/4.00	1
HM73-101R0LLF	1.00	0.90	6.0	10.9	18.0	8.40	8.80	.126/3.20	1
HM73-101R5LF	1.50	1.30	6.5	12.7	11.0	6.20	8.30	.177/4.50	1
HM73-102R0LF	2.00	1.70	8.0	11.8	11.0	7.20	8.30	.177/4.50	1
HM73-106R0LF	6.00	5.00	4.8	6.0	4.8	26.00	30.00	.197/5.00	1
HM73-106R4LF	6.40	5.80	3.5	6.0	6.0	26.00	30.00	.197/5.00	1
HM73-12R68LF	0.68	0.60	16.0	20.0	30.0	2.70	3.20	.197/5.00	1
HM73-S121R0LF	1.00	0.80	10.0	12.0	12.0	3.50	4.00	.177/4.50	1
HM73-S121R8LF	1.80	1.40	6.0	8.0	7.0	7.00	7.30	.177/4.50	1
HM73-15R10LF	0.108	0.103	30.0	40.8	51.0	0.60	0.70	.185/4.70	1
HM73-15R20LF	0.20	0.17	21.0	35.3	40.0	0.80	0.90	.158/4.00	1
HM73-15R47LF	0.47	0.42	17.0	26.7	35.0	1.40	1.55	.158/4.00	1
HM73-15R70LF	0.70	0.65	16.0	27.7	30.0	1.30	1.50	.220/5.60	1
HM73-151R0LF	1.00	0.95	10.0	22.0	34.0	2.00	2.20	.220/5.60	1
HM73-151R2LF	1.20	1.07	14.0	23.0	23.0	2.00	2.30	.232/5.90	1
HM73-151R5LF	1.50	1.33	10.0	22.9	25.0	1.90	2.20	.216/5.50	1
HM73-S152R1LF	2.10	1.68	11.0	12.0	16.0	6.50	7.80	.177/4.50	1
HM73-152R2LF	2.20	2.10	8.0	16.1	13.0	3.85	4.60	.216/5.50	1
HM73-152R4LF	2.40	1.92	15.0	17.0	20.0	3.35	4.00	.224/5.70	1
HM73-153R3LF	3.30	3.00	10.0	16.0	18.0	4.50	5.00	.287/7.30	1
HM73-154R7LF	4.70	3.50	10.0	15.6	16.0	4.80	5.00	.288/7.30	1
HM73-201R0LF	1.00	0.91	16.0	18.8	32.0	2.80	3.30	.177/4.50	1
HM73-201R5LF	1.50	1.43	13.0	16.4	22.0	3.70	4.40	.177/4.50	1
HM73-30R60LF	0.60	0.54	27.0	30.1	40.0	1.10	1.25	.216/5.50	1
HM73-301R0LF	1.00	0.89	23.0	25.8	34.0	1.50	1.70	.216/5.50	1
HM73-301R5LF	1.50	1.25	18.0	22.9	30.0	1.90	2.30	.216/5.50	1
HM73-302R2LF	2.20	2.00	12.0	15.0	24.0	4.40	5.10	.216/5.50	1
HM73-303R9LF	3.90	3.60	10.0	13.7	18.0	5.70	7.20	.216/5.50	1
HM73-304R6LF	4.60	4.10	9.0	12.4	14.0	6.50	8.30	.216/5.50	1
HM73-316R4LF	6.40	5.65	6.5	7.8	16.0	16.60	25.00	.197/5.00	2
HM73-318R2LF	8.20	7.72	5.6	7.3	16.0	18.80	26.00	.197/5.00	2
HM73-31100LF	10.0	8.90	6.0	6.9	10.0	20.80	26.00	.197/5.00	2
HM73-40R15LF	0.15	0.13	40.0	44.7	80.0	0.50	0.55	.256/6.50	1
HM73-40R30LF	0.30	0.27	40.0	40.8	73.0	0.50	0.65	.256/6.50	1
HM73-40R40LF	0.40	0.37	40.0	40.0	61.0	0.65	1.00	.256/6.50	1

Last Updated: 3 December 2009

MAGNETIC COMPONENTS SELECTOR GUIDE 2009/10 EDITION
We reserve the right to change specifications without prior notice.

Specifications @ 25°C (Cont'd)

Part Number	Inductance 100 kHz 0.1V		I _{rated} ⁽¹⁾ Rated Current Amps	Heating ⁽²⁾ Current Amps	I _{sat} ⁽³⁾ Saturation Current Amps	DC Resistance		Height Inch/mm Max.	Figure
	@ 0 Adc µH ± 20%	@ I _{rated} µH Typ.				mΩ Typ.	mΩ Max.		
HM73-40R50LF	0.50	0.46	40.0	40.0	49.0	0.80	1.00	.256/6.50	1
HM73-40R90LF	0.90	0.80	25.0	28.8	40.0	1.20	1.40	.256/6.50	1
HM73-402R2LF	2.20	1.90	15.0	20.8	27.0	2.30	2.60	.256/6.50	1
HM73-403R0LF	3.00	2.40	17.0	19.0	23.0	3.90	4.70	.256/6.50	1
HM73-403R3LF	3.30	2.64	17.0	21.0	24.0	3.30	4.20	.276/7.00	1
HM73-509R1LF	9.10	7.40	8.0	10.5	15.0	9.10	10.80	.295/7.50	1
HM73-50100LF	10.0	8.00	8.0	10.2	15.0	9.60	11.40	.295/7.50	1
HM73-50120LF	12.0	10.59	7.0	8.7	13.0	13.00	15.00	.295/7.50	1
HM73-50140LF	14.0	12.00	5.5	9.5	10.0	11.00	13.20	.335/8.50	1
HM73-5015R5LF	15.5	13.00	5.0	9.9	10.0	15.00	18.20	.315/8.00	1
HM73-5020R9LF	20.9	17.00	4.5	8.0	8.0	16.00	19.00	.315/8.00	1
HM73-5026R5LF	26.5	22.50	4.6	7.0	8.8	21.00	25.20	.355/9.00	1
HM73-601R0LF	1.00	0.80	30.0	38.0	45.0	1.00	1.20	.287/7.30	1
HM73-602R02LF	2.02	1.62	20.0	28.0	28.0	1.85	2.22	.323/8.20	1

- Notes: (1) The rated current is the approximate current at which inductance will be decreased by 20% from its initial (zero DC) value.
 (2) 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.
 (3) I_{sat} is the saturation current at which inductance rolls off approximately 30% from its initial unbiased inductance value.
 (4) PC Board layout, proximity of other components, trace size and airflow will affect temperature rise and must be considered when selecting an inductor.

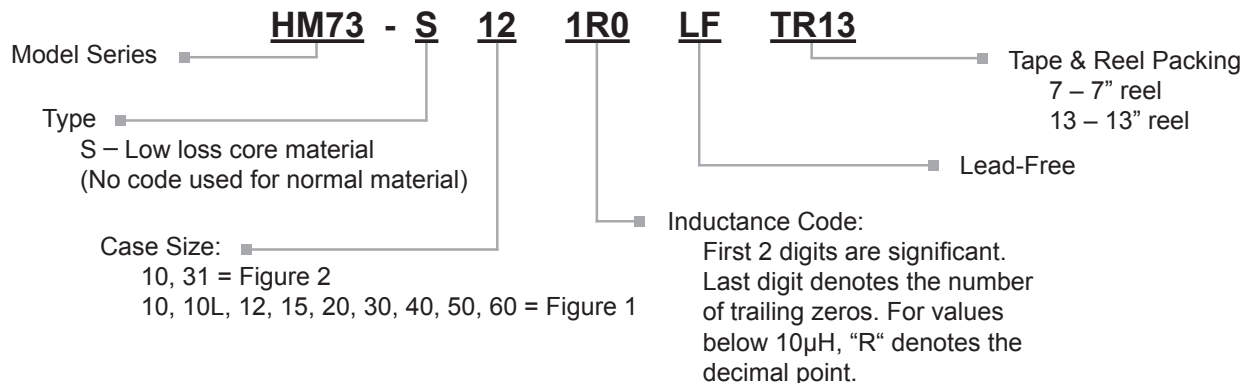
Packaging

Standard: Embossed Tape & Reel

(1)	Case size 10, 10L & 12		
Reel:	Diameter:	7" (177.8mm)	13" (330.2mm)
	Capacity:	= 250 Units	1000 Units
(2)	Other case sizes		
Reel:	Diameter:	Case size 15, 20, 30, 31, 40, 50, 60 = 13" (330.2mm)	
	Capacity:	Case size 20, 30, 31, 40 *	= 400 Units
		Case size 15	= 500 Units
		Case size 50, 60	= 250 Units

* Except for HM73-403R3LFTR13 which is 300 units per reel.

Ordering Information



Outline Dimensions (Inch/mm)

Figure 1

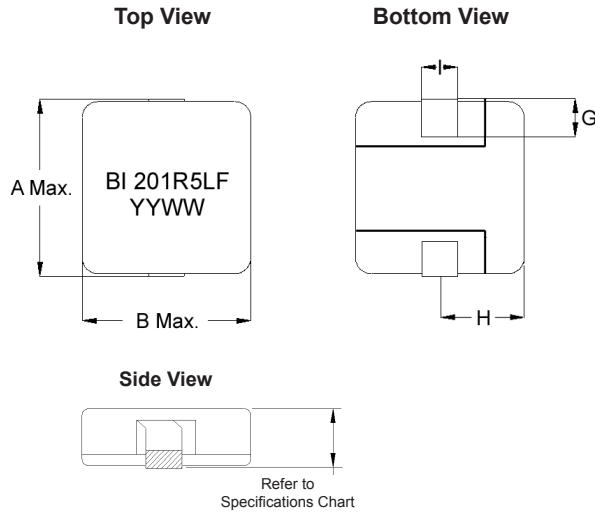
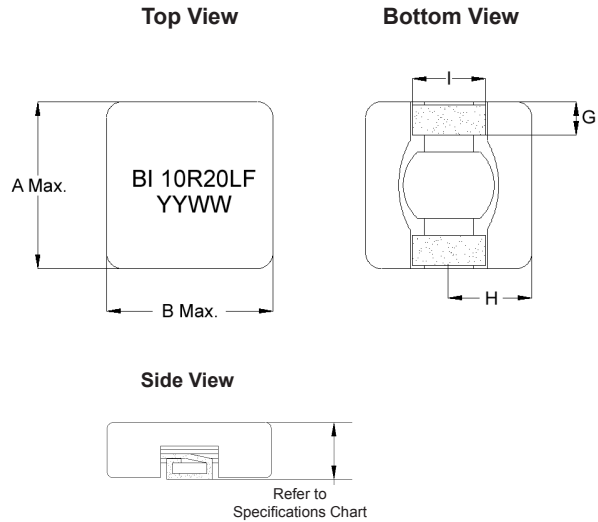
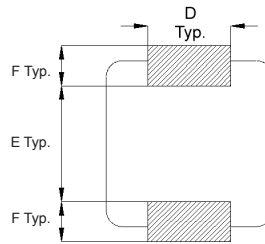


Figure 2



Recommended Solder Pad Layout



Case size	Inductance Code	Fig.	A	B	D	E	F	G	H	I
10	All Models	2	.295	.271	.138	.138	.098	.079 ± .020	.126 ± .020	.118 ± .020
			7.50	6.90	3.50	3.50	2.50	2.0 ± 0.5	3.2 ± 0.5	3.0 ± 0.5
10 & 10L	All Models	1	.285	.265	.086	.098	.098	.079 ± .020	.126 ± .020	.053 ± .020
			7.23	6.73	2.20	2.50	2.50	2.0 ± 0.5	3.2 ± 0.5	1.35 ± 0.5
12	All Models	1	.295	.265	.086	.098	.098	.079 ± .020	.126 ± .020	.053 ± .020
			7.50	6.73	2.20	2.50	2.50	2.0 ± 0.5	3.2 ± 0.5	1.35 ± 0.5
15	All Models	1	.461	.413	.098	.177	.142	.09 ± .020	.197 ± .020	.079 ± .020
			11.70	10.50	2.50	4.50	3.60	2.3 ± 0.5	5.0 ± 0.5	2.0 ± 0.5
20	All Models	1	.531	.512	.158	.236	.158	.118 ± .020	.240 ± .020	.091 ± .020
			13.5	13.0	4.00	6.00	4.00	3.0 ± 0.5	6.1 ± 0.5	2.3 ± 0.5
30	All Models	1	.552	.512	.158	.236	.167	.118 ± .020	.240 ± .020	.091 ± .020
			14.0	13.0	4.00	6.00	4.25	3.0 ± 0.5	6.1 ± 0.5	2.3 ± 0.5
31	All Models	2	.512	.512	.295	.236	.177	.118 ± .020	.240 ± .020	.217 ± .020
			13.0	13.0	7.50	6.00	4.50	3.0 ± 0.5	6.1 ± 0.5	5.5 ± 0.5
40	R15, R40 & 3R3	1	.575	.531	.158	.236	.177	.118 ± .020	.240 ± .020	.091 ± .020
	R30, R50	1	14.6	13.5	4.00	6.00	4.50	3.0 ± 0.5	6.1 ± 0.5	2.3 ± 0.5
	R90, 2R2 & 3R0		.556	.512	.158	.236	.167	.118 ± .020	.240 ± .020	.091 ± .020
50	All Models	1	14.1	13.0	4.00	6.00	4.25	3.0 ± 0.5	6.1 ± 0.5	2.3 ± 0.5
50	All Models	1	.531	.512	.158	.236	.158	.118 ± .020	.240 ± .020	.091 ± .020
			13.5	13.0	4.00	6.00	4.00	3.0 ± 0.5	6.1 ± 0.5	2.3 ± 0.5
60	All Models	1	.591	.512	.165	.236	.197	.118 ± .020	.250 ± .020	.094 ± .020
			15.0	13.0	4.20	6.00	5.00	3.0 ± 0.5	6.35 ± 0.5	2.4 ± 0.5