

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

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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

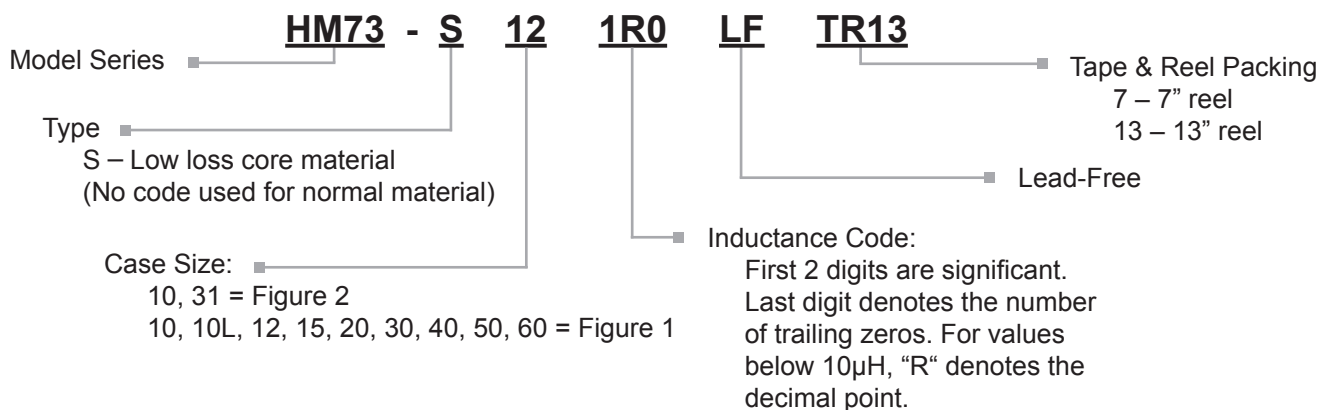
Reel:	Diameter:	7" (177.8mm)	13" (330.2mm)
	Capacity:	= 250 Units	1000 Units

- (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

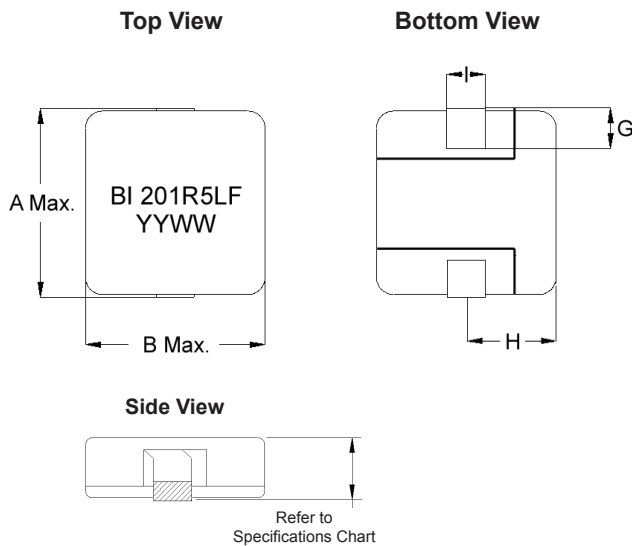
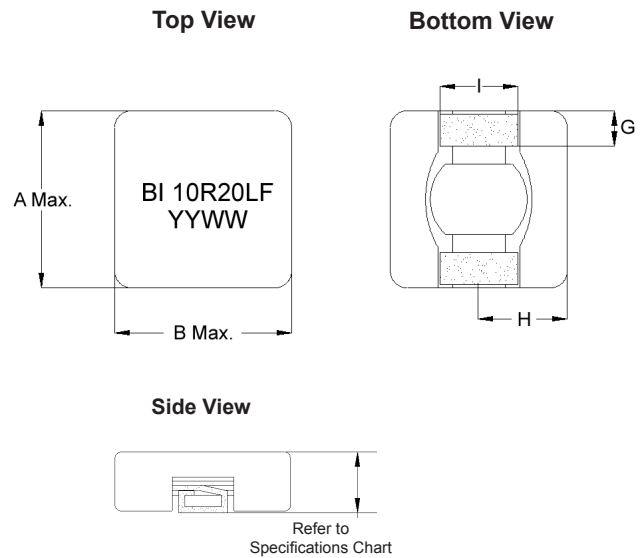
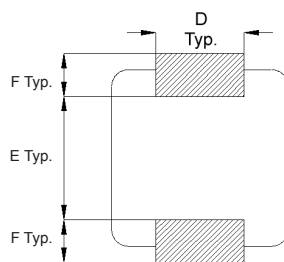


Figure 2



Recommended Solder Pad Layout



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

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