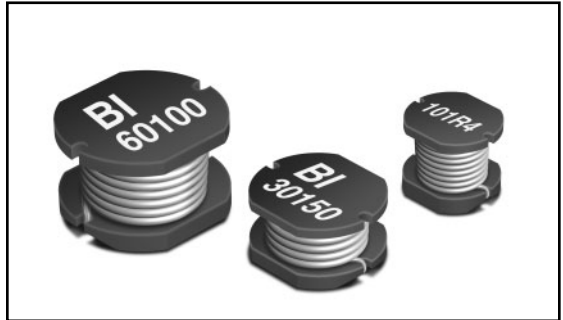


# MODEL HM79 SERIES

## Low Cost, Medium Power Surface Mount Inductors

### PRELIMINARY DATA SHEET



### FEATURES AND BENEFITS

- Low cost version provides high performance in a reduced footprint
- Low core loss excellent for high frequency applications
- Low profile designed for machine placement
- 1  $\mu\text{H}$  to 820  $\mu\text{H}$  inductance range
- Up to 2.6 amps continuous
- Compatible with vapor phase and infrared reflow soldering
- Custom designs available

### APPLICATIONS

- Laptop and notebook computers, PDAs
- DC/DC converter for hand held equipment
- Battery charging circuits
- Output ripple current filter
- Inductor for general purpose

### ELECTRICAL / ENVIRONMENTAL

Operating Temperature Range	-25°C to +125°C
Storage Temperature Range	-40°C to +85°C
Ambient Temperature, Maximum	70°C
Insulation System	Class B, 130°C
Temperature Rise, Maximum	40°C

Specifications subject to change without notice.  
Last Update: 03/17/2003.

## SPECIFICATIONS

Part Number	Inductance $\mu\text{H} \pm 20\%$ <sup>(1)</sup>	DC Resistance $\Omega$ Max.	Rated Current Amps <sup>(2)</sup>
HM79-101R0	1.0	0.048	2.56
HM79-101R4	1.4	0.056	2.52
HM79-101R8	1.8	0.063	1.95
HM79-102R2	2.2	0.071	1.75
HM79-102R7	2.7	0.078	1.58
HM79-103R3	3.3	0.086	1.44
HM79-103R9	3.9	0.093	1.33
HM79-104R7	4.7	0.108	1.15
HM79-105R6	5.6	0.125	0.99
HM79-106R8	6.8	0.131	0.95
HM79-108R2	8.2	0.146	0.84
HM79-10100	10	0.182	1.04
HM79-10120	12	0.210	0.97
HM79-10150	15	0.235	0.85
HM79-10180	18	0.338	0.74
HM79-10220	22	0.378	0.68
HM79-10270	27	0.522	0.62
HM79-10330	33	0.540	0.56
HM79-20100	10	0.10	1.44
HM79-20120	12	0.12	1.40
HM79-20150	15	0.14	1.30
HM79-20180	18	0.15	1.23
HM79-20220	22	0.18	1.11
HM79-20270	27	0.20	0.97
HM79-20330	33	0.23	0.88
HM79-20390	39	0.32	0.80
HM79-20470	47	0.37	0.72
HM79-20560	56	0.42	0.68
HM79-20680	68	0.46	0.61
HM79-20820	82	0.60	0.58
HM79-20101	100	0.70	0.52
HM79-20121	120	0.93	0.48
HM79-20151	150	1.10	0.40
HM79-20181	180	1.38	0.38
HM79-20221	220	1.57	0.35

Notes: 1. Inductance measured at 100kHz, 0.1Vrms, without DC current.

2. Rated DC current is the approximate current at which inductance will be decreased by 10% from its initial (zero DC) value or the DC current at which  $\Delta T = 40^\circ\text{C}$ , whichever is lower.

## SPECIFICATIONS

Part Number	Inductance $\mu\text{H} \pm 20\%$ <sup>(1)</sup>	DC Resistance $\Omega$ Max.	Rated Current Amps <sup>(2)</sup>
HM79-30100	10	0.080	1.44
HM79-30120	12	0.089	1.39
HM79-30150	15	0.104	1.24
HM79-30180	18	0.111	1.12
HM79-30220	22	0.129	1.07
HM79-30270	27	0.153	0.94
HM79-30330	33	0.170	0.85
HM79-30390	39	0.217	0.74
HM79-30470	47	0.252	0.68
HM79-30560	56	0.282	0.64
HM79-30680	68	0.332	0.59
HM79-30820	82	0.406	0.54
HM79-30101	100	0.481	0.51
HM79-30121	120	0.536	0.49
HM79-30151	150	0.755	0.40
HM79-30181	180	1.022	0.36
HM79-30221	220	1.200	0.31
HM79-30271	270	1.306	0.29
HM79-30331	330	1.495	0.28
HM79-40100	10	0.07	2.30
HM79-40120	12	0.08	2.00
HM79-40150	15	0.09	1.80
HM79-40180	18	0.10	1.60
HM79-40220	22	0.11	1.50
HM79-40270	27	0.12	1.30
HM79-40330	33	0.13	1.20
HM79-40390	39	0.16	1.10
HM79-40470	47	0.18	1.00
HM79-40560	56	0.24	0.94
HM79-40680	68	0.28	0.85
HM79-40820	82	0.37	0.78
HM79-40101	100	0.43	0.72
HM79-40121	120	0.47	0.66
HM79-40151	150	0.64	0.58
HM79-40181	180	0.71	0.51
HM79-40221	220	0.96	0.49
HM79-40271	270	1.11	0.42
HM79-40331	330	1.26	0.40
HM79-40391	390	1.77	0.36
HM79-40471	470	1.96	0.34

Notes: 1. Inductance measured at 1.0kHz without DC current.

2. Rated DC current is the approximate current at which inductance will be decreased by 10% from its initial (zero DC) value or the DC current at which  $\Delta T = 40^\circ\text{C}$ , whichever is lower.

**SPECIFICATIONS**

<b>Part Number</b>	<b>Inductance <math>\mu\text{H} \pm 20\%</math> <sup>(1)</sup></b>	<b>DC Resistance <math>\Omega</math> Max.</b>	<b>Rated Current Amps <sup>(2)</sup></b>
HM79-50100	10	0.053	2.38
HM79-50120	12	0.061	2.13
HM79-50150	15	0.070	1.87
HM79-50180	18	0.081	1.73
HM79-50220	22	0.088	1.60
HM79-50270	27	0.100	1.44
HM79-50330	33	0.120	1.26
HM79-50390	39	0.151	1.20
HM79-50470	47	0.170	1.10
HM79-50560	56	0.199	1.01
HM79-50680	68	0.223	0.91
HM79-50820	82	0.252	0.85
HM79-50101	100	0.344	0.74
HM79-50121	120	0.396	0.69
HM79-50151	150	0.544	0.61
HM79-50181	180	0.621	0.56
HM79-50221	220	0.721	0.53
HM79-50271	270	0.949	0.45
HM79-50331	330	1.100	0.42
HM79-50391	390	1.245	0.38
HM79-50471	470	1.526	0.35
HM79-50561	560	1.904	0.32

Notes: 1. Inductance measured at 1.0kHz without DC current.

2. Rated DC current is the approximate current at which inductance will be decreased by 10% from its initial (zero DC) value or the DC current at which  $\Delta T = 40^{\circ}\text{C}$ , whichever is lower.

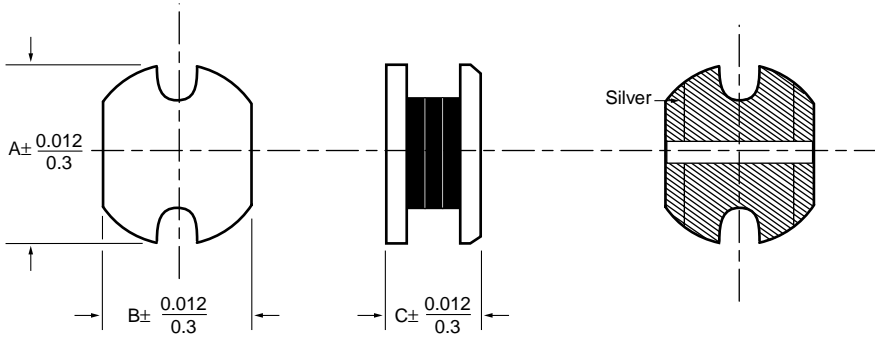
**SPECIFICATIONS**

<b>Part Number</b>	<b>Inductance <math>\mu\text{H} \pm 20\%</math> (1)</b>	<b>DC Resistance <math>\Omega</math> Max.</b>	<b>Rated Current Amps (2)</b>
HM79-60100	10	0.06	2.60
HM79-60120	12	0.07	2.45
HM79-60150	15	0.08	2.27
HM79-60180	18	0.09	2.15
HM79-60220	22	0.10	1.95
HM79-60270	27	0.11	1.76
HM79-60330	33	0.12	1.50
HM79-60390	39	0.14	1.37
HM79-60470	47	0.17	1.28
HM79-60560	56	0.19	1.17
HM79-60680	68	0.22	1.11
HM79-60820	82	0.25	1.00
HM79-60101	100	0.35	0.97
HM79-60121	120	0.40	0.89
HM79-60151	150	0.47	0.78
HM79-60181	180	0.63	0.72
HM79-60221	220	0.73	0.66
HM79-60271	270	0.97	0.57
HM79-60331	330	1.15	0.52
HM79-60391	390	1.30	0.48
HM79-60471	470	1.48	0.42
HM79-60561	560	1.90	0.33
HM79-60681	680	2.25	0.28
HM79-60821	820	2.55	0.24

Notes: 1. Inductance measured at 1.0kHz without DC current.

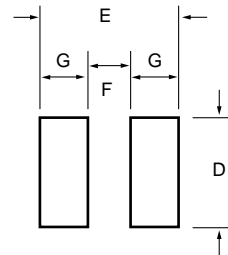
2. Rated DC current is the approximate current at which inductance will be decreased by 10% from its initial (zero DC) value or the DC current at which  $\Delta T = 40^\circ\text{C}$ , whichever is lower.

**OUTLINE DIMENSIONS (Inch/mm)**



Case Size	A	B	C	D	E	F	G
10	.177	.158	.126	.177	.205	.059	.069
	4.5	4.0	3.2	4.5	5.2	1.5	1.75
20	.228	.205	.177	.228	.240	.669	.085
	5.8	5.2	4.5	5.8	6.1	1.7	2.15
30	.307	.276	.140	.315	.315	.079	.118
	7.8	7.0	3.5	8.0	8.0	2.0	3.0
40	.307	.276	.199	.315	.315	.079	.118
	7.8	7.0	5.0	8.0	8.0	2.0	3.0
50	.394	.354	.158	.394	.394	.098	.148
	10.0	9.0	4.0	10.0	10.0	2.5	3.75
60	.394	.354	.213	.394	.394	.098	.148
	10.0	9.0	5.4	10.0	10.0	2.5	3.75

**Recommended Solder Pad Layout**



## PACKAGING

**Standard:** Embossed Tape & Reel

Reel	Diameter	=	13" (330mm)
Capacity:	Case size 10	=	1,500 Units
	Case size 20	=	1,500 Units
	Case size 30	=	1,000 Units
	Case size 40	=	500 Units
	Case size 50	=	500 Units
	Case size 60	=	500 Units

## ORDERING INFORMATION

