

MODEL HM73 SERIES

Shielded

Low Profile

Surface Mount Inductors

NEW PRODUCT



FEATURES AND BENEFITS

- Magnetic shielded construction for high density board assembly
- High performance, excellent DC current characteristics
- Large energy storage capacity
- Up to 40 amps continuous
- Compatible with vapor phase and infrared reflow soldering
- Custom designs available

APPLICATIONS

- Laptop and notebook computers and PDAs
- DC/DC converters in distributed power systems and handheld equipment
- Inductor for general purpose use

ELECTRICAL / ENVIRONMENTAL

Operating Temperature Range	-40°C to +135°C
Storage Temperature Range	-40°C to +85°C
Ambient Temperature, Maximum	80°C
Insulation System	Class F, 155°C
Temperature Rise, Maximum	50°C

Specifications subject to change without notice.

Last update: 05/06/2003.

SPECIFICATIONS

Part Number	Inductance		Rated Current Amps ⁽¹⁾	I _{SAT} ⁽³⁾ Current Amps	DC Resistance ⁽²⁾		Height Inch/mm Max.	Figure
	100 kHz Zero DC $\mu\text{H} \pm 20\%$	0.1V with DC Typ.			m Ω Typ.	m Ω Max.		
HM73-10R10	0.10	0.10	22.0	38.0	0.9	1.10	.138/3.50	2
HM73-10R10L	0.10	0.10	22.0	38.0	1.2	1.40	.118/3.00	1
HM73-10R20	0.22	0.20	17.0	23.0	1.8	2.10	.138/3.50	2
HM73-10R20L	0.22	0.20	17.0	23.0	1.8	2.10	.118/3.00	1
HM73-10R47	0.47	0.42	15.0	23.0	3.1	4.20	.169/4.30	1
HM73-10R68	0.68	0.64	10.5	28.0	4.5	5.20	.158/4.00	1
HM73-101R0	1.00	1.00	8.5	15.0	5.2	7.00	.158/4.00	1
HM73-101R5	1.50	1.30	6.5	11.0	8.0	10.0	.177/4.50	1
HM73-15R10	0.10	0.10	30.0	51.0	0.6	0.70	.185/4.70	1
HM73-15R20	0.20	0.17	21.0	40.0	0.6	0.80	.158/4.00	1
HM73-15R47	0.47	0.42	17.0	35.0	1.2	1.40	.158/4.00	1
HM73-15R70	0.70	0.65	16.0	30.0	1.3	1.50	.177/4.50	1
HM73-151R0	1.00	0.95	10.0	18.0	2.0	2.20	.220/5.60	1
HM73-152R2	2.20	2.20	8.0	13.0	3.85	4.60	.216/5.50	1
HM73-201R0	1.00	0.91	16.0	32.0	2.8	3.30	.177/4.50	1
HM73-201R5	1.50	1.43	13.0	22.0	3.7	4.40	.177/4.50	1
HM73-30R60	0.60	0.54	27.0	40.0	1.1	1.25	.216/5.50	1
HM73-301R0	1.00	0.89	23.0	34.0	1.5	1.70	.216/5.50	1
HM73-301R5	1.50	1.25	18.0	30.0	1.9	2.30	.223/5.65	1
HM73-302R2	2.20	2.00	12.0	24.0	4.4	5.10	.216/5.50	1
HM73-303R9	3.90	3.30	10.0	18.0	6.2	7.20	.216/5.50	1
HM73-304R6	4.60	4.10	9.0	14.0	7.2	8.30	.216/5.50	1
HM73-316R4	6.40	5.12	6.5	16.0	18.2	25.00	.197/5.00	2
HM73-318R2	8.20	7.72	5.6	16.0	23.5	26.00	.197/5.00	2
HM73-31100	10.0	8.00	6.0	10.0	23.1	26.00	.197/5.00	2
HM73-40R15	0.15	0.13	42.0	80.0	0.5	0.55	.256/6.50	1
HM73-40R30	0.30	0.27	40.0	73.0	0.5	0.65	.256/6.50	1
HM73-40R50	0.50	0.46	40.0	49.0	0.8	1.00	.256/6.50	1
HM73-40R90	0.90	0.80	25.0	40.0	1.2	1.40	.256/6.50	1
HM73-402R2	2.20	1.90	15.0	27.0	2.3	2.60	.256/6.50	1

Notes: (1) Rated current is the approximate current at which inductance will be decreased by 15% from its initial (zero DC) value or the current at which $\Delta T = 50^\circ\text{C}$, whichever is lower.

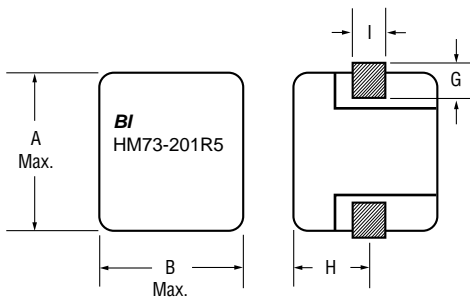
(2) DC Resistance measured at 20°C .

(3) I_{SAT} is the saturation current at which inductance rolls off approximately 30% from its initial value.

(4) Board layout, proximity of other components, trace size and airflow will affect temperature rise and must be considered when selecting an inductor.

OUTLINE DIMENSIONS (Inch/mm)

Figure 1



Bottom View

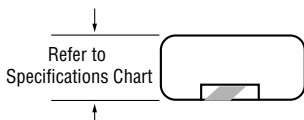
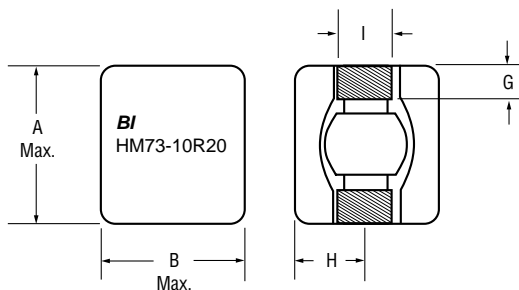
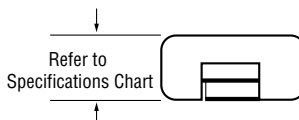


Figure 2

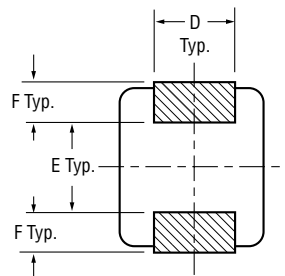


Bottom View



Case Size	Fig.	A	B	D	E	F	G	H	I
10	2	$\frac{.285}{7.23}$	$\frac{.265}{6.73}$	$\frac{.138}{3.50}$	$\frac{.138}{3.50}$	$\frac{.098}{2.50}$	$\frac{.079 \pm .020}{2.0 \pm 0.5}$	$\frac{.126 \pm .047}{3.2 \pm 1.2}$	$\frac{.118 \pm .02}{3.0 \pm 0.5}$
10L	1	$\frac{.285}{7.23}$	$\frac{.265}{6.73}$	$\frac{.079}{2.0}$	$\frac{.138}{3.50}$	$\frac{.098}{2.50}$	$\frac{.079 \pm .020}{2.0 \pm 0.5}$	$\frac{.126 \pm .047}{3.2 \pm 1.2}$	$\frac{.053 \pm .02}{1.35 \pm 0.5}$
15	1	$\frac{.461}{11.70}$	$\frac{.402}{10.20}$	$\frac{.098}{2.50}$	$\frac{.177}{4.50}$	$\frac{.138}{3.50}$	$\frac{.09 \pm .020}{2.3 \pm 0.5}$	$\frac{.197 \pm .047}{5.0 \pm 1.2}$	$\frac{.079 \pm .020}{2.0 \pm 0.5}$
20	1	$\frac{.591}{15.0}$	$\frac{.512}{13.00}$	$\frac{.295}{7.50}$	$\frac{.236}{6.00}$	$\frac{.177}{4.50}$	$\frac{.118 \pm .020}{3.0 \pm 0.5}$	$\frac{.240 \pm .047}{6.1 \pm 1.2}$	$\frac{.091 \pm .02}{2.3 \pm 0.5}$
30	1	$\frac{.591}{15.0}$	$\frac{.512}{13.00}$	$\frac{.295}{7.50}$	$\frac{.236}{6.00}$	$\frac{.177}{4.50}$	$\frac{.118 \pm .020}{3.0 \pm 0.5}$	$\frac{.240 \pm .047}{6.1 \pm 1.2}$	$\frac{.091 \pm .02}{2.3 \pm 0.5}$
31	2	$\frac{.591}{15.0}$	$\frac{.512}{13.00}$	$\frac{.295}{7.50}$	$\frac{.236}{6.00}$	$\frac{.177}{4.50}$	$\frac{.118 \pm .020}{3.0 \pm 0.5}$	$\frac{.240 \pm .047}{6.1 \pm 1.2}$	$\frac{.217 \pm .02}{5.5 \pm 0.5}$
40	1	$\frac{.591}{15.0}$	$\frac{.512}{13.00}$	$\frac{.295}{7.50}$	$\frac{.236}{6.00}$	$\frac{.177}{4.50}$	$\frac{.118 \pm .020}{3.0 \pm 0.5}$	$\frac{.240 \pm .047}{6.1 \pm 1.2}$	$\frac{.091 \pm .02}{2.3 \pm 0.5}$

Recommended Solder Pad Layout



PACKAGING

Standard: Embossed Tape & Reel

Reel: Diameter	=	13" (330.2mm)
Capacity: Case size 10, 10L	=	1,000 Units
Case size 15	=	400 Units
Case size 20	=	400 Units
Case size 30, 31	=	400 Units
Case size 40	=	400 Units

ORDERING INFORMATION

