

MODEL HM75 SERIES

High Current

Surface Mount Inductors

Inductance Range: 0.33 to 100 μ H

Rated Current: Up to 19 Amps

NEW PRODUCT



FEATURES AND BENEFITS

- High performance, high current rating
- Low profile, small footprint designed for machine placement
- Compatible with vapor phase and infrared reflow soldering
- Self-leded design, excellent for high current applications

APPLICATIONS

- Note book computers, PDA's
- DC/DC converters for mother board applications
- Battery charging circuits
- EMI filters
- Inductor for general purpose

ELECTRICAL / ENVIRONMENTAL

Operating Temperature Range	-40°C to +125°C
Storage Temperature Range	-40°C to +85°C
Ambient Temperature, Maximum	85°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	– Rated Inductance –		DC Resistance Max. ⁽⁴⁾ mΩ	Rated Current I _{RMS} ⁽²⁾ Amps	I _{SAT} ⁽³⁾ Amps
	L _{DC} μH Typical	L w/o DC L ₀ ⁽¹⁾ μH ±20%			
HM75-10R47	0.47	0.47	7.9	6.0	7.7
HM75-101R0	1.0	1.0	12.5	4.4	5.3
HM75-101R5	1.5	1.6	14.5	4.2	4.5
HM75-102R2	2.2	2.26	24.1	3.1	3.5
HM75-103R3	3.3	3.45	31.8	2.9	3.0
HM75-104R7	4.7	4.85	54.7	2.2	2.6
HM75-106R8	6.8	6.9	57.1	1.7	2.2
HM75-10100	10	10.4	81.3	1.5	1.9
HM75-10150	15	15.3	124	1.2	1.5
HM75-10220	22	23	183	1.0	1.2
HM75-10330	33	33.6	265	0.82	0.99
HM75-10470	47	48.5	334	0.72	0.87
HM75-20R33	0.33	0.33	2.0	16	20
HM75-20R68	0.68	0.80	3.5	12	13
HM75-201R0	1.0	1.1	4.6	10	11
HM75-201R5	1.5	1.5	6.1	9	9
HM75-202R2	2.2	2.3	7.8	7.4	7.8
HM75-202R7	2.7	2.9	10.0	6.6	7.0
HM75-203R3	3.3	3.3	11.0	5.9	6.4
HM75-204R7	4.7	4.8	15.1	4.8	5.4
HM75-20100	10	10.0	35	3.3	4.3
HM75-20150	15	15.43	45	3.1	3.0
HM75-20220	22	22.5	62	2.8	2.0
HM75-20330	33	33.2	92	2.1	1.7
HM75-20470	47	48.7	139	1.7	1.4
HM75-20680	68	68.2	177	1.5	1.2
HM75-20101	100	103	237	1.2	0.95
HM75-30R47	0.47	0.45	2.1	16	25.1
HM75-301R0	1.0	1.34	3.8	12.5	15.3
HM75-301R5	1.5	1.65	4.9	10	12
HM75-302R2	2.2	2.3	5.1	9.2	10.2
HM75-303R3	3.3	3.44	10	8.0	9.3
HM75-304R7	4.7	5.0	11.4	6.5	7.7
HM75-306R8	6.8	6.9	17.8	5.8	6.2
HM75-30100	10	11	22.8	4.3	5.2
HM75-30150	15	16.4	35.0	3.9	4.3

Notes: (1) Inductance measured at 100 kHz, 100 mVrms, OADC.

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

(3) Saturation current for approximately 30% roll-off.

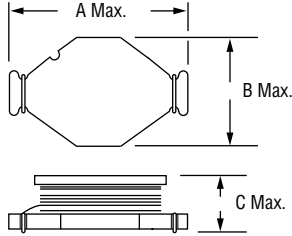
(4) DC resistance measured at 20°C.

SPECIFICATIONS

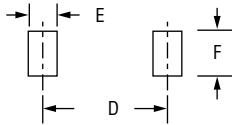
Part Number	– Rated Inductance –		DC Resistance Max. ⁽⁴⁾ mΩ	Rated Current I _{RMS} ⁽²⁾ Amps	I _{SAT} ⁽³⁾ Amps
	L _{DC} μH Typical	L w/o DC L ₀ ⁽¹⁾ μH ±20%			
HM75-30220	22	23.9	49.1	3.1	3.7
HM75-30330	33	33.9	69	2.4	3.0
HM75-30470	47	51	108.2	1.9	2.4
HM75-30680	68	69.5	156	1.6	2.0
HM75-30101	100	101.4	205.5	1.4	1.8
HM75-40R47	0.47	0.47	1.7	19.2	51.7
HM75-401R0	1.0	0.92	2.5	17.3	37.3
HM75-401R3	1.3	1.3	3.5	15	25
HM75-402R2	2.2	2.2	4.7	12	20
HM75-403R3	3.3	3.3	8.4	10	17
HM75-403R9	3.9	3.9	7.5	9	15
HM75-404R7	4.7	5.3	9.5	8.5	15
HM75-406R0	6.0	6.0	13.7	7.5	12
HM75-407R8	7.8	7.8	15.4	7.5	11
HM75-40100	10	10.0	22.0	6.0	10
HM75-40150	15	15.6	29.5	5.5	9.1
HM75-40220	22	22.6	34	4.5	7.6
HM75-40330	33	34.5	52	3.7	6.1
HM75-40470	47	48.0	71	3.1	5.2
HM75-40680	68	69.2	104	2.4	4.3
HM75-40101	100	103	156	2.0	3.6
HM75-50R78	0.78	0.78	2.6	15	30
HM75-501R0	1.0	0.92	3.1	17.3	37.3
HM75-501R5	1.5	1.52	4.0	15	28.9
HM75-502R2	2.2	2.27	5.6	12	23.7
HM75-503R3	3.3	3.2	7.0	11	20.0
HM75-503R9	3.9	4.0	10	9	15
HM75-504R7	4.7	4.7	9.5	6.5	10.7
HM75-507R5	7.5	7.5	15	6	9.8
HM75-50100	10	10	40	3.5	8.0
HM75-50150	15	15	50	3.0	7.0
HM75-50220	22	22	66	2.5	5.5
HM75-50330	33	33	80	2.0	4.0
HM75-50470	47	47	110	1.6	3.8
HM75-50680	68	68	170	1.2	3.0
HM75-50101	100	100	220	1.2	2.5

- Notes: (1) Inductance measured at 100 kHz, 100 mVrms, OADC.
(2) RMS current is the approximate current at which inductance will decrease by 10% from its initial value (zero DC) or the DC current at which $\Delta T = 40^\circ\text{C}$, whichever is lower.
(3) Saturation current for approximately 30% roll-off.
(4) DC resistance measured at 20°C.

OUTLINE DIMENSIONS (Inch/mm)



Recommended Solder Pad Layout



Case Size	A	B	C	D	E	F
10	.350	.240	.217	.29	.137	.225
	8.89	6.09	5.5	7.37	3.48	5.72
20	.530	.395	.270	.410	.135	.295
	13.46	10.03	6.90	10.41	3.43	7.49
30	.768	.52	.283	.610	.135	.283
	19.5	13.21	7.2	15.5	3.43	7.2
40	.865	.60	.315	.690	.150	.370
	21.97	15.24	8.0	17.53	3.81	9.40
50	.530	.395	.50	.410	.135	.295
	13.46	10.03	12.7	10.41	3.43	7.49

PACKAGING

Standard: Embossed Tape & Reel

Reel: Diameter	=	13" (330.2mm)
Capacity: Case size 10	=	1,000 Units
Case size 20	=	550 Units
Case size 30	=	450 Units
Case size 40	=	275 Units
Case size 50	=	250 Units

ORDERING INFORMATION

Model Series **HM75**
 Case Size **20**
 Inductance Code: **101**
 1st two digits are significant.
 Last digit denotes number of trailing zeros. Values below 10 μ H "R" denotes decimal point.