

Electrical / Environmental

HM76



Drum Core, Space Efficient High Performance Surface Mount Inductors

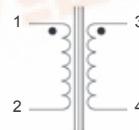
- Operating Temperature Range -40°C to +125°C
- Ambient Temperature, Maximum 80°C
- Insulation System Class B, 130°C
- Temperature Rise, Maximum 40°C

Schematics

Schematic A



Schematic B



Specifications (Case Size 10 and 20)

Part Number	Inductance $\mu\text{H} \pm 20\%$ ⁽¹⁾	DC Resistance @ 25°C ⁽³⁾		Rated Current ^(2,4)		Schematic	Figure
		Ω Max	Amps	Amps			
HM76-101R0JLF	1.0	0.03	2.90	A	1		
HM76-101R5JLF	1.5	0.05	2.80	A	1		
HM76-102R2JLF	2.2	0.06	2.40	A	1		
HM76-103R3JLF	3.3	0.09	2.00	A	1		
HM76-104R7JLF	4.7	0.09	1.50	A	1		
HM76-106R8JLF	6.8	0.17	1.30	A	1		
HM76-10100JLF	10	0.16	1.10	A	1		
HM76-10150JLF	15	0.30	0.80	A	1		
HM76-10220JLF	22	0.43	0.70	A	1		
HM76-10330JLF	33	0.69	0.57	A	1		
HM76-10470JLF	47	0.92	0.46	A	1		
HM76-10680JLF	68	1.39	0.37	A	1		
HM76-10101JLF	100	1.98	0.28	A	1		
HM76-10151JLF	150	3.08	0.22	A	1		
HM76-10221JLF	220	4.47	0.18	A	1		
HM76-10331JLF	330	6.90	0.15	A	1		
HM76-10471JLF	470	11.55	0.12	A	1		
HM76-20100JLF	10	0.07	2.00	A	2		
HM76-20150JLF	15	0.09	1.50	A	2		
HM76-20220JLF	22	0.15	1.30	A	2		
HM76-20330JLF	33	0.21	1.10	A	2		
HM76-20470JLF	47	0.31	0.80	A	2		
HM76-20680JLF	68	0.42	0.70	A	2		
HM76-20101JLF	100	0.58	0.60	A	2		
HM76-20151JLF	150	0.89	0.50	A	2		
HM76-20221JLF	220	1.30	0.40	A	2		
HM76-20331JLF	330	2.00	0.30	A	2		
HM76-20471JLF	470	2.50	0.20	A	2		
HM76-20681JLF	680	3.50	0.10	A	2		
HM76-20102JLF	1,000	6.00	0.05	A	2		

Specifications (Case Size 30 and 40)

Part Number	Inductance $\mu\text{H} \pm 20\%$ ⁽¹⁾	DC Resistance @ 25°C ⁽³⁾		Rated Current ^(2,4)		Schematic	Figure
		Ω Max	Amps	Amps			
HM76-301R0JLF	1.0	0.01	8.50	A	1		
HM76-301R5JLF	1.5	0.01	7.90	A	1		
HM76-302R2JLF	2.2	0.02	7.40	A	1		
HM76-303R3JLF	3.3	0.02	6.60	A	1		
HM76-304R7JLF	4.7	0.02	6.00	A	1		
HM76-306R8JLF	6.8	0.03	5.20	A	1		
HM76-308R2JLF	8.2	0.03	5.00	A	1		



Specifications (Case Size 30 and 40)

Part Number	Inductance $\mu\text{H} \pm 20\%$ ⁽¹⁾	DC Resistance	Rated Current ^(2,4)	Schematic	Figure
		@ 25 °C ⁽³⁾	Amps		
		Ω Max			
HM76-30100JLF	10	0.04	4.60	A	1
HM76-30150JLF	15	0.05	3.70	A	1
HM76-30220JLF	22	0.07	3.10	A	1
HM76-30330JLF	33	0.11	2.50	A	1
HM76-30470JLF	47	0.16	2.00	A	1
HM76-30680JLF	68	0.20	1.80	A	1
HM76-30820JLF	82	0.24	1.58	A	1
HM76-30101JLF	100	0.30	1.50	A	1
HM76-30151JLF	150	0.44	1.20	A	1
HM76-30221JLF	220	0.64	1.00	A	1
HM76-30331JLF	330	1.00	0.80	A	1
HM76-30471JLF	470	1.50	0.50	A	1
HM76-30681JLF	680	2.20	0.40	A	1
HM76-30102JLF	1,000	3.15	0.30	A	1
HM76-403R3JLF	3.3	0.01	9.80	B	3
HM76-404R7JLF	4.7	0.01	9.30	B	3
HM76-406R8JLF	6.8	0.02	7.70	B	3
HM76-408R2JLF	8.2	0.02	7.00	B	3
HM76-40100JLF	10	0.02	6.50	B	3
HM76-40150JLF	15	0.03	5.30	B	3
HM76-40220JLF	22	0.04	4.40	B	3
HM76-40330JLF	33	0.06	3.50	B	3
HM76-40470JLF	47	0.07	3.00	B	3
HM76-40680JLF	68	0.11	2.50	B	3
HM76-40820JLF	82	0.12	2.20	B	3
HM76-40101JLF	100	0.15	2.00	B	3
HM76-40151JLF	150	0.22	1.70	B	3
HM76-40221JLF	220	0.33	1.30	B	3
HM76-40331JLF	330	0.45	1.10	B	3
HM76-40471JLF	470	0.70	0.93	B	3
HM76-40681JLF	680	1.00	0.78	B	3
HM76-40102JLF	1,000	1.45	0.65	B	3

Specifications (Case Size 50)

Part Number	Inductance $\mu\text{H} \pm 20\%$ ⁽¹⁾	DC Resistance	Rated Current ^(2,4)	Schematic	Figure
		@ 25 °C ⁽³⁾	Amps		
		Ω Max			
HM76-50R78JLF	0.78	0.003	15.0	A	4
HM76-501R3JLF	1.3	0.0043	13.7	A	4
HM76-502R2JLF	2.2	0.006	12.0	A	4
HM76-503R3JLF	3.3	0.008	9.80	A	4
HM76-505R6JLF	5.6	0.010	7.50	A	4
HM76-50100JLF	10	0.023	6.00	A	4
HM76-50150JLF	15	0.035	4.50	A	4
HM76-50220JLF	22	0.045	4.00	A	4
HM76-50330JLF	33	0.075	3.00	A	4
HM76-50470JLF	47	0.096	2.60	A	4
HM76-50680JLF	68	0.140	2.30	A	4
HM76-50101JLF	100	0.190	1.70	A	4
HM76-50151JLF	150	0.290	1.50	A	4
HM76-50221JLF	220	0.410	1.20	A	4
HM76-50331JLF	330	0.540	1.00	A	4
HM76-50471JLF	470	0.800	0.83	A	4
HM76-50681JLF	680	1.150	0.72	A	4
HM76-50102JLF	1,000	1.800	0.56	A	4

- Notes:
- (1) Inductance is measured at 100kHz, 0.1 Vrms, without DC current.
 - (2) Rated DC current at which inductance will be decreased by 10% from its initial value or the DC current at which $\Delta T = 40^\circ\text{C}$, whichever is smaller.
 - (3) Resistance is measured with both windings connected in parallel (case size 40 only).
 - (4) Rated current will be decreased by 50% when parts are connected as coupled inductors.

Outline Dimensions (Inch/mm)

Figure 1
(Case Size: 10 & 30)

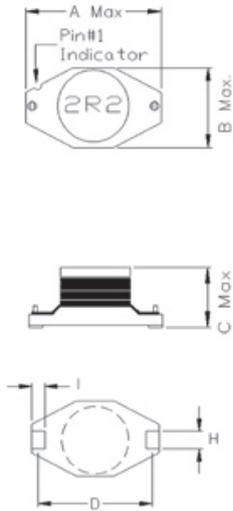


Figure 2
(Case Size: 20)

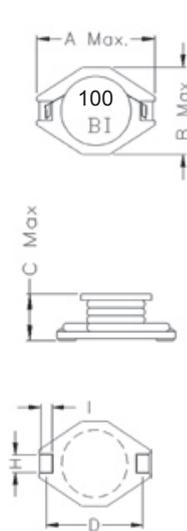


Figure 3
(Case Size: 40)

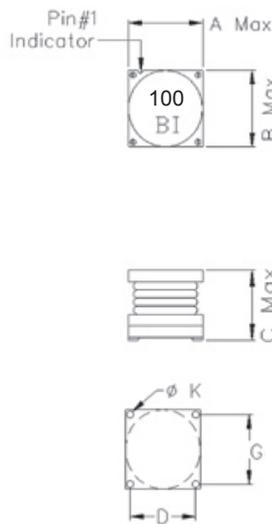
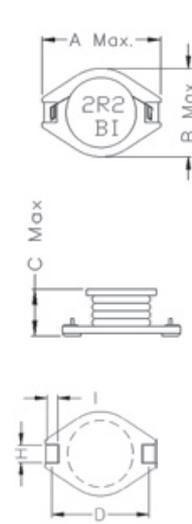
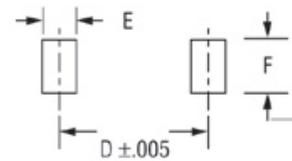


Figure 4
(Case Size: 50)

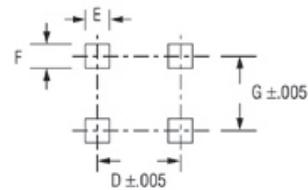


Recommended Solder Pad Layout

(1) For Case Size: 10, 20, 30 & 50



(2) For Case Size: 40



Case Size	Fig.	A	B	C	D	E	F	G	H	I	K
10	1	.280	.188	.127	.218	.059	.10	-	.067	.051	-
		7.30	4.78	3.23	5.54	1.50	2.54	-	1.70	1.30	-
20	2	.508	.370	.137	.402	.120	.135	-	.102	.107	-
		12.90	9.40	3.50	10.21	3.05	3.43	-	2.59	2.72	-
30	1	.530	.370	.232	.404	.120	.135	-	.102	.107	-
		13.46	9.40	5.90	10.26	3.05	3.43	-	2.59	2.72	-
40	3	.634	.622	.284	.520	.157	.157	.466	-	-	.098
		16.10	15.80	7.21	13.21	4.00	4.00	11.84	-	-	2.50
50	4	.746	.60	.284	.595	.145	.135	-	.102	.103	-
		18.95	15.24	7.21	15.11	3.68	3.43	-	2.59	2.62	-

Packaging

Standard: Embossed Tape and Reel

All units orientated with lead #1 to the same side of sprocket hole.

Reel: Diameter: Case size 10 = 7" (177.8mm)

All Other Case Sizes = 13" (330.2mm)

Capacity: Case size 10 = 500 Units

Case size 20 = 1,000 Units

Case size 30 = 350 Units

Case size 40 = 200 Units

Case size 50 = 200 Units

Ordering Information

