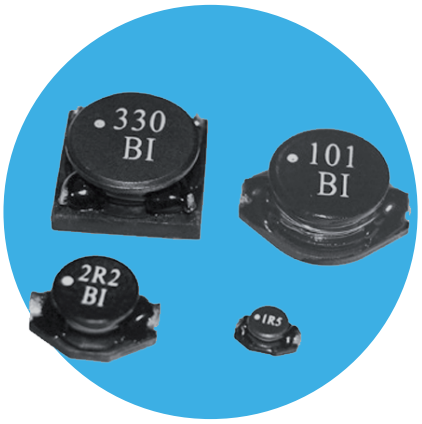
Magnetics

Drum Core, Space Efficient High Performance Surface Mount Inductors



Model HM76

Features and Benefits

- Operating Temperature Range -40°C to +125°C
- Temperature Rise, Maximum 40°C
- Operating Frequency Up to 3MHz
- RoHS Compliant

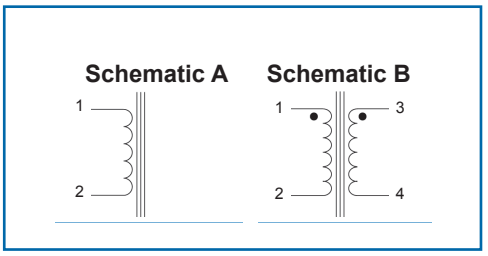
Specifications (Case Size 10 and 20)

Part Number	Inductance µH ± 20% (1)	DC Resistance @ 25°C ΩMax.	Rated Current (2,4) Amps	Schematic	Figure
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	3
HM76-20150JLF	15	0.09	1.50	A	3
HM76-20220JLF	22	0.15	1.30	A	3
HM76-20330JLF	33	0.21	1.10	A	3
HM76-20470JLF	47	0.31	0.80	A	3
HM76-20680JLF	68	0.42	0.70	A	3
HM76-20101JLF	100	0.58	0.60	A	3
HM76-20151JLF	150	0.89	0.50	A	3
HM76-20221JLF	220	1.30	0.40	A	3
HM76-20331JLF	330	2.00	0.30	A	3
HM76-20471JLF	470	2.50	0.20	A	3
HM76-20681JLF	680	3.50	0.10	A	3
HM76-20102JLF	1,000	6.00	0.05	A	3

Specifications (Case Size 30 and 40)

Part Number	Inductance µH ± 20% (1)	DC Resistance @ 25°C (3) ΩMax.	Rated Current (2,4) Amps	Schematic	Figure
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

Schematics



General Note

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Rev. 02 8.17

Model HM76

Specifications (Case Size 30 and 40)

Part Number	Inductance µH ± 20% (1)	DC Resistance @ 25°C (3) ΩMax.	Rated Current (2,4) Amps	Schematic	Figure
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	2
HM76-404R7JLF	4.7	0.01	9.30	B	2
HM76-406R8JLF	6.8	0.02	7.70	B	2
HM76-408R2JLF	8.2	0.02	7.00	B	2
HM76-40100JLF	10	0.02	6.50	B	2
HM76-40150JLF	15	0.03	5.30	B	2
HM76-40220JLF	22	0.04	4.40	B	2
HM76-40330JLF	33	0.06	3.50	B	2
HM76-40470JLF	47	0.07	3.00	B	2
HM76-40680JLF	68	0.11	2.50	B	2
HM76-40820JLF	82	0.12	2.20	B	2
HM76-40101JLF	100	0.15	2.00	B	2
HM76-40151JLF	150	0.22	1.70	B	2
HM76-40221JLF	220	0.33	1.30	B	2
HM76-40331JLF	330	0.45	1.10	B	2
HM76-40471JLF	470	0.70	0.93	B	2
HM76-40681JLF	680	1.00	0.78	B	2
HM76-40102JLF	1,000	1.45	0.65	B	2

Specifications (Case Size 50)

Part Number	Inductance µH ± 20% (1)	DC Resistance @ 25°C ΩMax.	Rated Current (2,4) Amps	Schematic	Figure
HM76-50R78JLF	0.78	0.003	15.0	A	3
HM76-501R3JLF	1.3	0.004	13.7	A	3
HM76-502R2JLF	2.2	0.006	12.0	A	3
HM76-503R3JLF	3.3	0.008	9.80	A	3
HM76-505R6JLF	5.6	0.010	7.50	A	3
HM76-50100JLF	10	0.023	6.00	A	3
HM76-50150JLF	15	0.035	4.50	A	3
HM76-50220JLF	22	0.045	4.00	A	3
HM76-50330JLF	33	0.075	3.00	A	3
HM76-50470JLF	47	0.096	2.60	A	3
HM76-50680JLF	68	0.140	2.30	A	3
HM76-50101JLF	100	0.190	1.70	A	3
HM76-50151JLF	150	0.290	1.50	A	3
HM76-50221JLF	220	0.410	1.20	A	3
HM76-50331JLF	330	0.540	1.00	A	3
HM76-50471JLF	470	0.800	0.83	A	3
HM76-50681JLF	680	1.150	0.72	A	3
HM76-50102JLF	1,000	1.800	0.56	A	3

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 ΔT = 40°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.

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Outline Dimensions (Inch/mm)

Figure 1
(Case Size: 10 & 30)

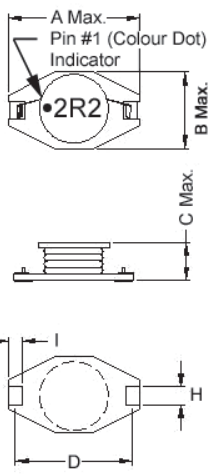


Figure 2
(Case Size: 40)

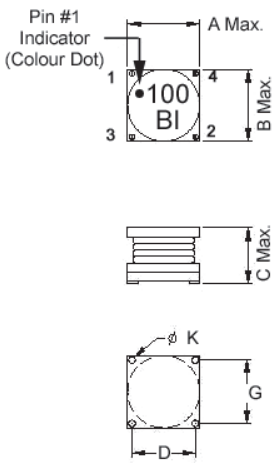
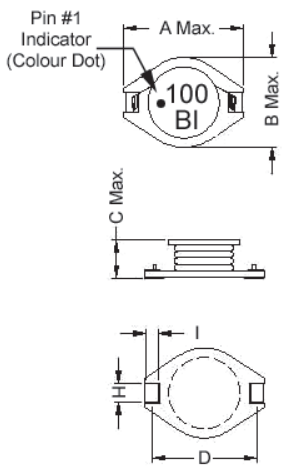
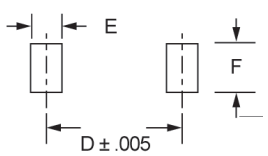


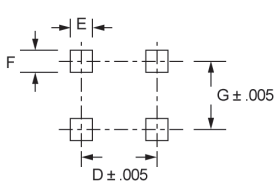
Figure 3
(Case Size: 20 & 50)



Recommended Solder Pad Layouts
(1) For Case Size: 10, 20, 30 & 50



(2) For Case Size: 40



Case Size	Figure	A	B	C	D	E	F	G	H	I	K
10	1	.280 7.30	.188 4.78	.127 3.23	.218 5.54	.059 1.50	.10 2.54	-	.067 1.70	.051 1.30	-
20	3	.508 12.90	.370 9.40	.137 3.50	.402 10.21	.120 3.05	135 3.43	-	.102 2.59	.107 2.72	-
30	1	.530 13.46	.370 9.40	.232 5.90	.404 10.26	.120 3.05	.135 3.43	-	.102 2.59	.107 2.72	-
40	2	.634 16.10	.622 15.80	.292 7.41	.520 13.21	.157 4.00	.157 4.00	.466 11.84	-	-	.098 2.50
50	3	.746 18.95	.60 15.24	.284 7.21	.595 15.11	.145 3.68	.135 3.43	=	.102 2.59	.102 2.59	=

Packaging

Standard	Embossed Tape and Reel All units orientated with lead #1 to the same side of sprocket hole.			
	Reel:	Diameter:	=	7" (177.8mm)
		All Other Case Sizes	=	13" (330.2mm)
	Capacity:	Case size 10	=	500 units
		Case size 20	=	1000 units
		Case size 30	=	350 units
		Case size 40	=	200 units
		Case size 50	=	200 units

Ordering Information

HM76 - 20 100 J LF TR13

- HM76 — Model Series
- 20 — Case Size: 10 (Figure 1) 40 (Figure 2) 20 (Figure 3) 50 (Figure 3) 30 (Figure 1)
- 100 — Inductance Code: First 2 digits are significant. Last digit denotes the number of trailing zeros.
- J — Termination Type
- LF — Lead-Free
- TR13 — TR: Tape & Reel Packing 7 – 7" reel 13 – 13" reel

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