

Electrical / Environmental

- Operating Temperature Range -40°C to +125°C
- Ambient Temperature, Maximum 80°C
- Insulation System Class B, 130°C
- Temperature Rise, Maximum 40°C
- Operating Frequency Up to 3MHz

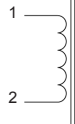
HM76

Drum Core, Space Efficient High Performance
Surface Mount Inductors

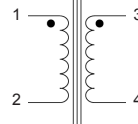


Schematics

Schematic A



Schematic B



Specifications (Case Size 10 and 20)

Part Number	Inductance $\mu\text{H} \pm 20\%$ ⁽¹⁾	DC Resistance @ 25°C		Rated Current ^(2,4) Amps	Schematic	Figure
		Ω Max.				
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 $\mu\text{H} \pm 20\%$ ⁽¹⁾	DC Resistance @ 25°C ⁽³⁾		Rated Current ^(2,4) Amps	Schematic	Figure
		Ω Max.				
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) (Cont'd)

Part Number	Inductance $\mu\text{H} \pm 20\%$ ⁽¹⁾	DC Resistance @ 25°C ⁽³⁾		Rated Current ^(2,4)		Schematic	Figure
		Ω Max.	Amps	Amps			
HM76-30100JLF	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 $\mu\text{H} \pm 20\%$ ⁽¹⁾	DC Resistance @ 25°C		Rated Current ^(2,4)		Schematic	Figure
		Ω Max.	Amps	Amps			
HM76-50R78JLF	0.78	0.003	15.0	A	3		
HM76-501R3JLF	1.3	0.0043	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 $\Delta T = 40^\circ\text{C}$, 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)

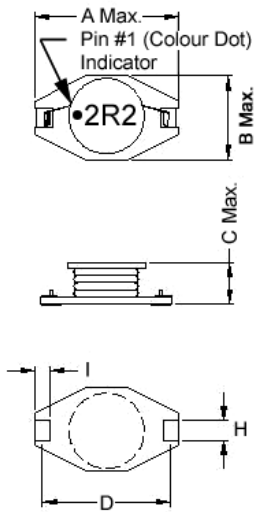


Figure 2
(Case Size: 40)

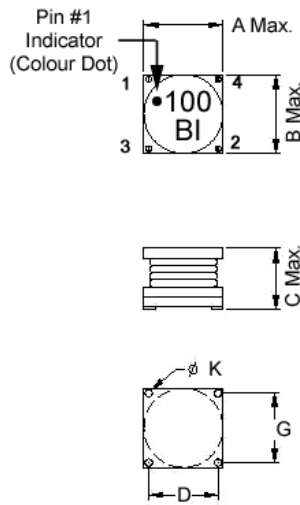
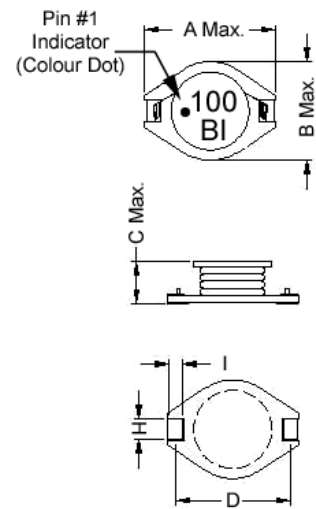
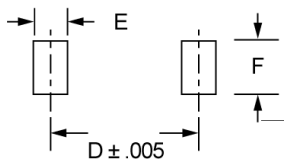


Figure 3
(Case Size: 20 & 50)

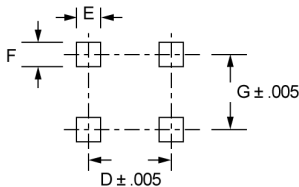


Recommended Solder Pad Layouts

(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	.103 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

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

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[HM76-104R7JLF](#) [HM76-10100J](#) [HM76-104R7J](#) [HM76-30100J](#) [HM76-303R3JLFTR](#)