

# MPL Molded Power Inductors

Easy Product Selection

**MPL- XX XXXX- XXX**

- Inductance Code (R47 - 0.47µH / 4R7 - 4.7µH / 470 - 47µH / ...)
- Size Code (2010 / 2512 / 3020 / ...)
- MPS Inductor Series (AT / AL / AY / SE)



	MPL-AT2010	MPL-AT2512	MPL-AT2514	MPL-AL4020	MPL-AL5030	MPL-AL5050	MPL-AL6050	MPL-AL6060	MPL-AY3020	MPL-AY4020	MPL-AY1050	MPL-AY1265																			
Base (mm)	2.0 x 1.6	2.5 x 2.0	2.5 x 2.0	4.10 x 4.10	5.50 x 5.30	5.50 x 5.30	6.60 x 6.40	6.60 x 6.40	3.50 x 3.20	3.50 x 3.20	11 x 10	13.50 x 12.60	Base (mm)																		
Height (mm)	1.0	1.20	1.40	1.90	2.90	4.80	4.80	5.80	1.80	1.80	4.80	6.20	Height (mm)																		
	$R_{DC}$ (mΩ)	$I_{R@40K}$ (A)	$I_{sat@30\%}$ (A)	$R_{DC}$ (mΩ)	$I_{R@40K}$ (A)	$I_{sat@30\%}$ (A)	$R_{DC}$ (mΩ)	$I_{R@40K}$ (A)	$I_{sat@30\%}$ (A)	$R_{DC}$ (mΩ)	$I_{R@40K}$ (A)	$I_{sat@30\%}$ (A)	$R_{DC}$ (mΩ)	$I_{R@40K}$ (A)	$I_{sat@30\%}$ (A)																
0.33µH		13.5	6.4	8.5												0.33µH															
0.47µH	27	4.4	5.7	19	5.5	6.4	6.2	9.2	12.5	3.78	13.6	26.5	19.5	6.3	9.0	1.25	25	41	0.89	33	64	0.47µH									
0.56µH							3.92	13.2	22															1.1	31	58	0.56µH				
0.68µH	41	3.5	4.9	26	4.7	6.0	7.5	8.7	11				26	5.15	8.6	1.75	23	36	1.25	29	51					0.68µH					
0.82µH							9.0	8.4	9.5	5.0	12.8	18	3.9	16.9	24												0.82µH				
1.0µH	50	3.2	4.2	35	4.0	5.2	10.1	7.9	8.6	6.5	11.2	16	4.3	16.2	21												1.0µH				
1.2µH							12.2	7.4	7.5	8.0	10.0	14	5.3	14.6	20												1.2µH				
1.5µH	97	2.4	3.2	56	3.2	4.2	14.5	6.4	7.1	9.7	9.0	12.5	6.0	13.3	18												1.5µH				
1.8µH							10.5	8.8	12																		1.8µH				
2.2µH	137	2.2	2.7		70	2.6	3.4	21.5	5.5	6.2	12.3	8.2	11	8.3	12	15											2.2µH				
3.3µH				121	2.0	2.7	34.5	4.4	5.2	21	6.0	10	11.7	10.1	12												3.3µH				
4.7µH	215	1.5	1.9		180	1.7	2.4	52.2	3.65	4.2	33	5.3	8.0	16.5	7.5	11	12	10	9.0								4.7µH				
5.6µH										20	6.8	8.0	19	7.0	10	13	9.4	8.6	209	1.8	2.8	97	2.45	2.6	13	9.8	14	8.6	13	20	5.6µH
6.8µH				280	1.4	2.2							25	6.1	7.6				250	1.65	2.6	129	2.20	2.4	15	9.0	13	9.9	12	19.5	6.8µH
8.2µH													28	5.8	7.2				345	1.4	1.95	136	2.10	2.1				12.5	11.5	18	8.2µH
10µH				355	1.2	1.7							37	4.8	5.5				370	1.3	1.75	163	1.90	2.0	19	7.8	12	13.3	10.7	16	10µH
15µH																															15µH
22µH																															22µH

# MPL Semi-Shielded Power Inductors

Easy Product Selection

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- Inductance Code (R47 - 0.47µH / 4R7 - 4.7µH / 470 - 47µH / ...)
- Size Code (2010 / 2512 / 3020 / ...)
- MPS Inductor Series (AT / AL / AY / SE)

# MPS Power Inductor Family

	MPL-SE2512	MPL-SE4030	MPL-SE5040	MPL-SE6040
Base (mm) Height (mm)	2.0 x 2.5 1.20	4.0 x 4.0 3.0	4.90 x 4.90 4.0	6.0 x 6.0 4.0
	$R_{DC}$ $I_{R@40K}$ $I_{sat@30\%}$ (mΩ) (A) (A)	$R_{DC}$ $I_{R@40K}$ $I_{sat@30\%}$ (mΩ) (A) (A)	$R_{DC}$ $I_{R@40K}$ $I_{sat@30\%}$ (mΩ) (A) (A)	$R_{DC}$ $I_{R@40K}$ $I_{sat@30\%}$ (mΩ) (A) (A)
0.47µH	27 4.5 6.5		7.3 8.0 16	
0.68µH	33 3.8 4.3			
1.0µH	45 3.35 4.2	12.5 6.3 7.5	9.4 7.6 10.5	
1.5µH	62 2.9 3.2		14 6.2 9.3	11.5 6.8 8.9
2.2µH	92 2.5 2.7	30 3.9 5.5	16 5.4 7.9	14.5 6.3 7.2
3.3µH	158 1.8 2.4	39.8 3.45 4.1	22 5.2 6.4	19.5 5.6 5.6
4.7µH	205 1.6 1.9	63 2.6 3.7	33 4.3 5.0	23 5.2 5.0
6.8µH		83 2.4 3.3	45 3.5 4.6	33 4.4 4.1
8.2µH				39 4.0 3.6
10µH	400 1.1 1.3	97 2.2 2.4	56 3.2 3.6	41 3.8 3.4
15µH	620 0.85 0.9	185 1.6 1.95	83 2.5 2.9	70 2.8 2.7
22µH	1000 0.70 0.8	219 1.5 1.65	124 2.1 2.4	97 2.35 2.25

The new surface-mounted power inductors from Monolithic Power Systems are designed for applications ranging from power supply to power converters. The molded and semi-shielded series inductors comprise inductance ranges from 0.33 µH to 22 µH and saturation current ranges from 0.8 A to 64 A.

## Semi-Shielded Series (MPL-SE)

The MPL-SE semi-shielded power inductors are shielded by an external magnetic epoxy resin for better magnetic characteristics. Their design offers a lower DCR and higher current capabilities.



## Molded Series (MPL-AT / AY / AL)

This series includes molded magnetic-shielded power inductors that offer soft saturation due to their molded design, delivering a stable high-temperature behavior.



Their molded construction decreases the audible noise generated from alternating currents and pulse wave frequencies.



The MPL-AT Series offers a very low profile where height is a design restriction. This series also offers Low DCR/ACR and the ability to handle high current.

The MPL-AY Series offers Low DCR/ACR and the ability to handle high current.



The MPL-AL Series offers Low DCR/ACR and a flat-wire construction, which provides even higher current ratings than round-wire molded inductors.

## Power Inductor Sample Kits



### Available in Five Configurations

Part Number	L-Values	Inductor Series / Sizes
EVSK005V1	25	MPL-SE / 2512 4030 5040 6040
EVSK004V1	25	MPL-AL / 4020 5030 5050 6050 6060
EVSK003V1	20	MPL-AY / 1050 1265
EVSK002V1	16	MPL-AY / 3020 4020
EVSK001V1	16	MPL-AT / 2010 2012 2014

Please contact MPS Sales in your area for pricing and additional information.

