

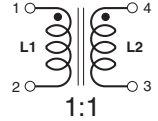
Coupled Inductors



Key 1 Find your required inductance in the far left column.

2.5 0.05 2 Scan the row until you find the desired current rating (bold number); parts from there to the right meet your requirement.

Isat (A) DCR (Ohms) 3 Read up to see the Coilcraft product series and dimensions.



	Actual size	Actual size	Actual size	Actual size	Actual size	Actual size	Actual size	Actual size	Actual size	Actual size	Actual size	Actual size	Actual size	Actual size
	PFD2015 Shielded	PFD3215 Shielded	LPD3015 Shielded	LPD5010 Shielded	1812DPS Shielded	LPD4012 Shielded	LPD5030 Shielded	LPD6235 Shielded	MSD7342 Shielded	MSD1048 Shielded	MSD1260T Shielded	MSD1278T Shielded	MSD1583 Shielded	MSD1514 Shielded
Base (mm)	2.2 x 1.5	3.3 x 2.3	3.0 x 3.0	4.8 x 4.8	5.8 x 5.0	3.94 x 3.94	4.8 x 4.8	6.0 x 6.0	7.5 x 7.5	10.3 x 10.3	12.3 x 12.3	12.3 x 12.3	15.0 x 15.0	15.0 x 15.0
Height (mm)	1.4	1.5	1.4	0.9	3.8	1.1	2.9	3.5	4.6	4.8	6.0	8.1	8.6	14.2
Inductance														
0.33 µH														
0.39 µH		2.40 0.070	3.4 0.071											
0.56 µH			2.8 0.079				3.9 0.087	6.0 0.031						
0.68 µH				2.8 0.070										
0.82 µH							3.4 0.100	5.0 0.038						
1.0 µH	1.3 0.165	1.65 0.123	2.2 0.129	2.2 0.100	2.4 0.200			4.7 0.042						
1.5 µH			1.8 0.204	1.8 0.150			2.91 0.185	4.3 0.048						
1.8 µH	1.0 0.294	1.30 0.250	1.6 0.273											
2.2 µH		1.15 0.265	1.6 0.300	1.6 0.200	1.5 0.330	2.50 0.235	3.4 0.067			9.10 0.019				
2.5 µH	0.88 0.477								6.3 0.033					30.5 0.012
3.3 µH	0.77 0.670	0.90 0.335	1.2 0.337	1.3 0.270		2.00 0.320	2.8 0.077		5.4 0.037		14.10 0.020			
4.7 µH	0.60 1.00	0.80 0.442	0.88 0.503	1.1 0.400	1.5 0.410	1.80 0.500	2.2 0.111		4.6 0.051		11.08 0.036	16.36 0.040		23.7 0.014
5.6 µH				0.94 0.450		1.60 0.620	1.9 0.125		4.2 0.063		9.84 0.040	15.74 0.046		
6.8 µH	0.47 1.75	0.70 0.600	0.79 0.622	0.87 0.530		1.63 0.530	1.5 0.159	3.12 0.120	3.9 0.070		8.64 0.048	14.20 0.048		
8.2 µH	0.42 2.50			0.78 0.700		1.30 0.600			3.5 0.075		7.98 0.052	12.20 0.055		
10 µH	0.37 3.40	0.55 1.25	0.60 1.04	0.70 0.780	0.80 0.740	1.10 0.750	1.2 0.210	2.80 0.157	3.0 0.10	4.30 0.053	6.88 0.060	10.66 0.058	14.5 0.031	16.2 0.018
12 µH									2.7 0.12		6.70 0.074	9.74 0.062	13.2 0.037	14.8 0.022
15 µH			0.51 1.42	0.56 1.19	0.70 0.960	0.94 1.13	1.2 0.298		2.4 0.13		5.80 0.085	9.03 0.072	11.8 0.045	13.3 0.028
18 µH			0.48 1.55						2.3 0.17		5.68 0.097	7.86 0.080	10.8 0.048	
22 µH			0.44 1.89	0.48 1.58	0.50 1.84	0.84 1.63	0.98 0.452	1.73 0.300	2.1 0.22	2.90 0.098	5.02 0.116	7.26 0.096	9.80 0.065	11.0 0.036
27 µH									1.9 0.25		4.50 0.124	7.02 0.120		9.90 0.039
33 µH			0.36 2.84	0.39 2.50		0.58 1.83	0.78 0.565		1.7 0.27		4.14 0.134	6.52 0.150	8.00 0.095	9.00 0.052
39 µH					0.45 2.60				1.5 0.38		3.82 0.142	5.60 0.161		
47 µH			0.30 4.03	0.33 3.48	0.40 2.66	0.40 2.52	0.65 0.806	0.99 0.620	1.4 0.42	2.00 0.208	3.40 0.174	4.60 0.180	6.70 0.115	7.50 0.075
56 µH									1.3 0.46		3.14 0.198	4.50 0.190		
68 µH			0.26 6.11	0.27 5.10		0.37 3.23	0.55 1.13		1.2 0.60	1.70 0.297	2.88 0.216	4.32 0.210	5.50 0.165	6.20 0.090
82 µH						0.29 3.66			1.1 0.68		2.60 0.274	4.02 0.280		
100 µH			0.22 8.54	0.22 8.00		0.29 4.76	0.56 1.79	0.74 1.20	0.98 0.77	1.30 0.387	2.38 0.322	3.46 0.300	4.60 0.260	5.15 0.126
120 µH			0.20 9.23			0.27 5.54			0.90 1.03		2.04 0.418	3.16 0.410		
150 µH			0.18 12.40	0.18 11.7		0.27 6.90	0.45 2.43		0.80 1.35		1.92 0.476	2.70 0.460	3.75 0.380	
180 µH			0.17 15.32			0.23 8.75			0.73 1.52		1.78 0.536	2.58 0.510		
220 µH			0.15 18.56	0.15 15.2		0.17 11.24	0.36 3.30		0.66 1.72	0.90 0.840	1.60 0.691	2.28 0.690	3.10 0.460	3.50 0.287
270 µH									0.60 2.41		1.40 0.806	2.10 0.900		
330 µH			0.12 27.70			0.16 17.00	0.32 5.36		0.54 2.70		1.26 1.09	1.84 1.02		2.83 0.367
390 µH									0.50 3.05		1.23 1.20	1.70 1.12		
470 µH								0.26 7.51	0.23 3.5	0.46 4.00	1.09 1.59	1.60 1.53	2.12 1.04	2.40 0.550
560 µH									0.42 4.43		0.948 1.81	1.46 1.69		
680 µH									0.38 5.00		0.874 2.06	1.22 2.29		
820 µH									0.35 6.80		0.802 2.65	1.18 2.55		
1000 µH								0.17 16.5	0.15 7.00	0.31 7.80	0.728 3.06	1.05 2.87	1.45 2.40	1.63 1.25
1500 µH									0.13 10.8					
2000 µH									0.12 16.0					

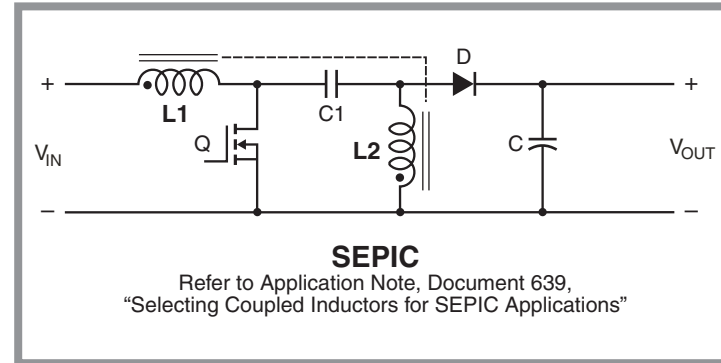
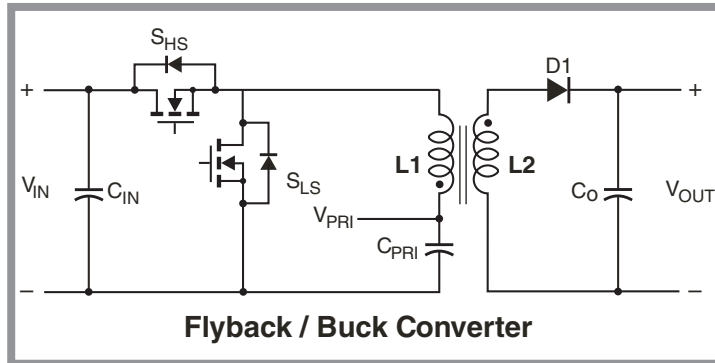
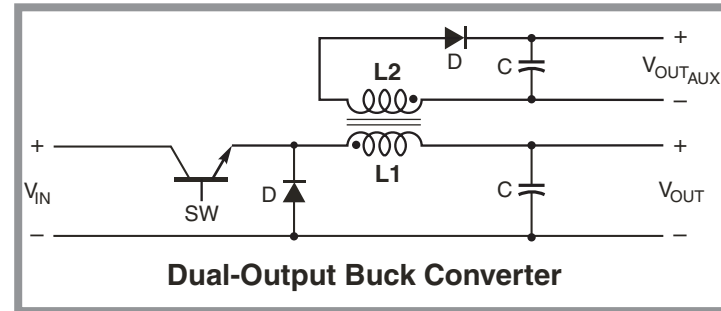
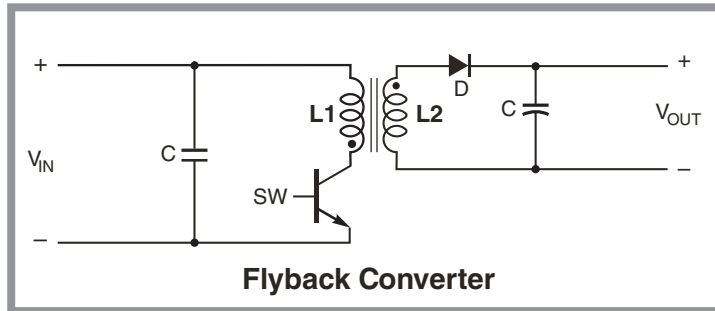
- Isat is the sum of the current flowing in both windings. DCR is the maximum per winding.
- When windings are connected in parallel, inductance is the same value and DCR is half the value shown.
- When windings are connected in series, inductance is four times the value and DCR is twice the value.

For free evaluation samples or more information, visit www.coilcraft.com or call 800-322-2645.

Typical Applications

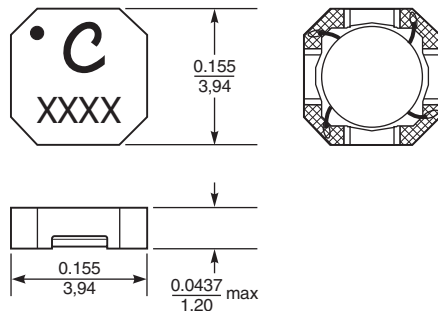
Coupled inductors are ideal for use in a variety of circuits including flyback, multi-output buck and SEPIC. They can also be used as common mode chokes. These parts offer excellent coupling coefficient ($k \geq 0.98$); and provide a wide range of inductance values, high efficiency and excellent current handling. In SEPIC topologies, the required inductance for each winding is half the value needed for two separate inductors, allowing selection of a part with lower DCR and higher current handling.

Typical Application Schematics



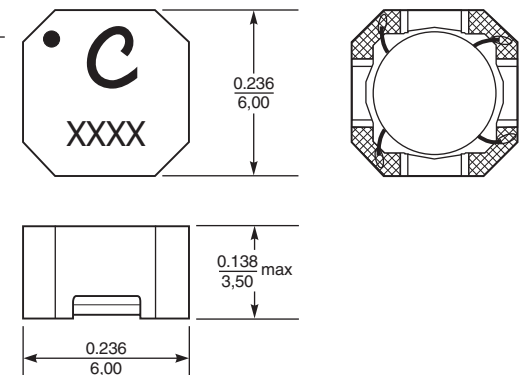
Coilcraft coupled inductors are also available with a variety of turns ratios.

Part number	Turns ratio
LPR4012-202AMR	1 : 1.5
LPR4012-202BMR	1 : 2
LPR4012-202DMR	1 : 3
LPR4012-202LMR	1 : 10
LPR4012-103BMR	1 : 2
LPR4012-103DMR	1 : 3
LPR4012-223BMR	1 : 2
LPR4012-223DMR	1 : 3



Part number	Turns ratio
LPR6235-253LMR	1 : 10
LPR6235-253PMR	1 : 20
LPR6235-123QMR	1 : 50
LPR6235-752RMR	1 : 90
LPR6235-752SMR	1 : 100

For complete specifications, visit coilcraft.com/lpr6235.cfm



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The LPR4012 and LPR6235 series are in stock and available for immediate sampling and purchase. The LPR3010, LPR3015, LPR5010 and LPR5030 series are made to order. Visit coilcraft.com/LPR.cfm for details.