

# INDUCTORS & CONNECTIVITY

## AUTOMOTIVE POWER INDUCTORS

### OVERVIEW

The collection of inductors range in package sizes and materials to meet the variety of power, inductance and operating temperature requirements. Each series demonstrates EMI shielding features to prevent interference and disruption to neighboring circuitry. This selection of inductors can service most high reliability DC/DC conversion topologies with superior power densities and efficiencies.

### INDUCTOR TYPES

#### RESIN SHIELDED



- Operating temperature up to +125°C
- High inductance up to 470μH
- Resin shielded

#### ROUND WIRE METAL ALLOY



- High operating temperature up to +155°C
- DCR optimized with round wire
- Wide range of package sizes for variety of applications
- Highly effective shielding through molded construction

#### ROUND WIRE CARBONYL POWDER



- Operating temperature up to +125°C
- Saturation current optimized with round wire
- Wide range of package sizes for variety of applications
- Highly effective shielding through molded construction

#### FLAT WIRE



- Highest current rating inductor type in the market
- Lowest DCR inductor type in the market
- Features flat wire construction for high performance
- Highly effective shielding through molded construction

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## PRODUCT LINE UP

SERIES	INDUCTANCE ( $\mu$ H)	CURRENT RATING (A)	DCR (m $\Omega$ )	RATED CURRENT (A)	DCR (m $\Omega$ )	OPERATING TEMPERATURE	DIMENSIONS (mm)		
				@ 1 $\mu$ H			L	W	H
<b>RESIN SHIELDED</b>									
ASPIAIG-S4035	1.0-150	0.5-4.5	24-2280	4.5	24.0	-40°C to +125°C	4.0	4.0	3.5
ASPIAIG-S6055	3.3-330	0.6-4.6	26-1603	4.6	26	-40°C to +125°C	6.0	6.0	5.5
ASPIAIG-S8050	1.0-470	0.6-7.2	10-1540	7.2	10.0	-40°C to +125°C	8.0	8.0	5.0
<b>ROUND WIRE METAL ALLOY</b>									
AMDLA3010Q	0.15-10	0.9-8	12-430	2.8	48.0	-55°C to +125°C	3.4	3.0	1.0
AMDLA3020Q	0.22-10	1.3-10	10-260	5.0	30.0	-55°C to +125°C	3.4	3.0	2.0
AMDLA4010Q	0.22-10	1.1-11	12-312	4.2	42.0	-55°C to +125°C	4.4	4.0	1.0
AMDLA4012Q	0.33-4.7	2.2-10	14.5-143	5.2	43.0	-55°C to +125°C	4.4	4.0	1.2
AMDLA4530Q	0.1-4.7	4.0-32	2.1-52	8.5	13.8	-55°C to +155°C	4.9	4.7	3.0
AMDLA7030Q	0.15-33	1.8-25	2.1-258	11.0	7.4	-55°C to +155°C	7.3	6.6	3.0
AMDLA1004Q	0.15-100	2.0-44	0.6-310	20.0	3.3	-55°C to +155°C	11.0	10.0	4.0
AMDLA1306Q	0.1-100	3.8-60	0.2-161	29.0	1.8	-55°C to +155°C	13.5	12.6	6.5
AMDLA1707Q	0.47-82	6.5-60	0.9-83	46.0	1.3	-55°C to +125°C	17.8	16.9	7.0
AMDLA2213Q	1.5-100	7.5-48	1.1-40	48.0	1.1	-55°C to +155°C	23.5	22.0	13.0
<b>ROUND WIRE CARBONYL POWDER</b>									
AMPLA4012Q	0.1-22	0.8-11.5	5.5-1050	4.0	47.0	-55°C to +125°C	4.5	4.1	1.2
AMPLA4020Q	0.1-22	1.2-12	4.0-500	5.0	27.0	-55°C to +125°C	4.5	4.1	2.0
AMPLA5030Q	0.15-22	1.7-18	2.7-250	7.0	14.0	-55°C to +125°C	5.7	5.2	3.0
AMPLA7012Q	0.1-10	1.8-16	4.0-290	6.0	30.0	-55°C to +125°C	7.0	6.6	1.2
AMPLA7030Q	0.1-47	1.8-32.5	1.7-363	11.0	10.0	-55°C to +125°C	7.3	6.6	3.0
AMPLA7050Q	0.4-22	2.5-23	3.7-170	15.0	6.5	-55°C to +125°C	7.3	6.6	5.0
ASPIAIG-F1040	0.15-82	1.5-43	0.6-320	18.0	3.3	-55°C to +125°C	11.0	10.0	4.0
ASPIAIG-F1265	0.15-47	6.5-55	0.6-90	30.0	2.3	-55°C to +125°C	13.5	12.5	6.5
AMPLA1707Q	0.45-100	5.3-62	0.9-118	52.0	2.0	-55°C to +125°C	17.6	16.9	7.0

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				@ 1μH			L	W	H
<b>FLAT WIRE</b>									
ASPIAIG-F4020	0.1-2.2	5.6-18	2.4-38.7	9.6	14.6	-40°C to +125°C	4.1	4.1	2.0
ASPIAIG-FLR4020	0.47-4.7	3.5-12.5	6.8-57.2	8.0	11.7	-40°C to +125°C	4.1	4.1	2.0
ASPIAIG-Q4020	0.1-2.2	5.6-18	2.4-38.7	9.6	14.6	-55°C to +155°C	4.1	4.1	2.0
ASPIAIG-QLR4020	0.47-4.7	3.5-12.5	6.8-57.2	8.0	11.7	-55°C to +155°C	4.1	4.1	2.0
ASPIAIG-F5020	0.15-1.5	8.8-18.8	4.6-18.7	10.5	13.8	-40°C to +125°C	5.5	5.3	2.0
ASPIAIG-F5030	0.15-4.7	5.9-22.2	2.3-36.3	12.2	7.6	-40°C to +125°C	5.5	5.3	3.0
ASPIAIG-F6030	0.18-4.5	7.0-32	1.7-25.3	18.0	6.1	-40°C to +125°C	6.6	6.4	3.0
ASPIAIG-F6050	1.0-4.7	8.0-18	4.5-18.4	18.0	4.5	-40°C to +125°C	6.6	6.4	5.0
ASPIAIG-F7020	0.27-1	11-21	3.5-10.8	11.0	10.8	-40°C to +125°C	7.8	7.6	2.0
ASPIAIG-F7030	0.6-8.2	5.9-23	3.2-48.73	21.8	5.0	-40°C to +125°C	7.8	7.6	3.0
ASPIAIG-Q1010	2.2-15	12-29	2.8 -19.3	N/A	N/A	-55°C to +155°C	11.9	11.0	9.7
ASPIAIG-Q1030	0.28-1.5	18-35	1.6 – 6.6	23.0	4.95	-55°C to +155°C	11.9	11.0	2.9
ASPIAIG-Q1060	0.68-10	9-34	1.5-18.2	28.5	2.32	-55°C to +155°C	11.9	11.0	5.7
ASPIAIG-Q1510	4.7-33	13-30	3.8-20.0	N/A	N/A	-55°C to +155°C	17.5	16.5	9.7
ASPIAIG-Q1513	4.7-33	14-31	3.3-22.2	N/A	N/A	-55°C to +155°C	17.5	16.5	12.7
ASPIAIG-Q5030	0.15-4.7	5.9-22.2	2.3-36.3	12.2	7.60	-55°C to +155°C	6.0	5.7	2.9
ASPIAIG-Q7030	0.6-8.2	5.9-23	3.2-48.7	21.8	5.0	-55°C to +155°C	7.8	7.6	2.9
ASPIAIG-Q7050	2.2-5.6	7-14	6.4-17.2	N/A	N/A	-55°C to +155°C	8.4	8.0	4.8
ASPIAIG-Q8080	1.8-10	8.7-24	4.0-22.9	N/A	N/A	-55°C to +155°C	8.9	8.5	7.7
ASPIAIG-QLR5050	5.6-10	5.0-7.2	24.2-43.0	N/A	N/A	-55°C to +155°C	6.0	5.7	4.8