

Wire Wound SMD Power Inductor – AS1A Series



Operating Temp ◆ -55°C ~ +150°C (Including self-heating)

Features

- ◆ High performance and high strength ferrite materials, high current and high reliability
- ◆ Closed magnetic circuit design to reduce leakage flux
- ◆ Halogen free, RoHS compliant
- ◆ AEC-Q200-G0 verified

Applications

- ◆ ADAS
- ◆ Infotainment system
- ◆ LED lighting
- ◆ Airbag
- ◆ Internet of vehicle

Product Identification

1	2	3	4	5	6
AS1A	201610	3R3	M	T	□□□

1	Type
AS1A	Wire Wound SMD Power Inductor

3	Nominal Inductance
Example	Nominal Value
3R3	3.3μH
100	10μH

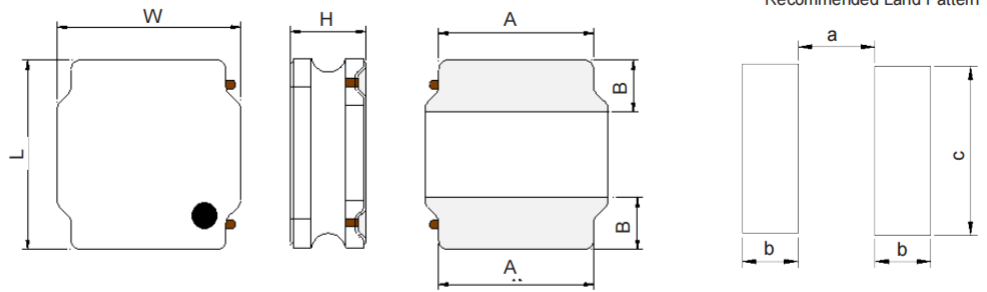
4	Inductance Tolerance
J	±5%
M	±20%

5	Packing
T	Tape & Reel

6	Design Code
□□□	Design Code
* Standard product is blank	

2	External Dimensions (L×W×H) [mm]
201210	2.0×1.2×1.0
201610	2.0×1.6×1.0
201612	2.0×1.6×1.2
2012	2.0×2.0×1.2
252010	2.5×2.0×1.0
252012	2.5×2.0×1.2
322517	3.2×2.5×1.7
3010	3.0×3.0×1.0
3012	3.0×3.0×1.2
3015	3.0×3.0×1.5
4010	4.0×4.0×1.0
4012	4.0×4.0×1.2
4018	4.0×4.0×1.8
4020	4.0×4.0×2.0
4026	4.0×4.0×2.6
4030	4.0×4.0×3.0
453228	4.5×3.2×2.8
5020	5.0×5.0×2.0
5030	5.0×5.0×3.0
5040	5.0×5.0×4.0
6020	6.0×6.0×2.0
6028	6.0×6.0×2.8
6045	6.0×6.0×4.5
757254	7.5×7.2×5.4
8030	8.0×8.0×3.0
8040	8.0×8.0×4.0

Shape and Dimensions



Unit: mm

Series	L	W	H Max.	A	B	a Typ.	b Typ.	c Typ.
AS1A201210	2.0±0.2	1.2±0.2	1.0	1.0±0.2	0.5±0.2	1.1	0.55	1.3
AS1A201610	2.0±0.2	1.6±0.2	1.0	1.35±0.2	0.6±0.2	0.7	0.7	1.7
AS1A201612	2.0±0.2	1.6±0.2	1.2	1.35±0.2	0.6±0.2	0.7	0.7	1.7
AS1A2012	2.0±0.2	2.0±0.2	1.2	1.7±0.2	0.6±0.2	0.7	0.65	2.05
AS1A252010	2.5±0.2	2.0±0.2	1.0	1.75±0.2	0.65±0.2	0.8	0.85	2.0
AS1A252012	2.5±0.2	2.0±0.2	1.2	1.75±0.2	0.65±0.2	0.8	0.85	2.0
AS1A322517	3.2±0.2	2.5±0.2	1.7	2.0±0.2	0.9±0.2	1.4	0.95	2.55
AS1A3010	3.0±0.2	3.0±0.2	1.0	2.7±0.2	1.0±0.2	1.5	0.8	2.7
AS1A3012	3.0±0.2	3.0±0.2	1.2	2.6±0.2	1.0±0.2	1.5	0.8	2.7
AS1A3015	3.0±0.2	3.0±0.2	1.5	2.6±0.2	0.8±0.2	1.5	0.8	2.7
AS1A4010	4.0±0.2	4.0±0.2	1.0	3.2±0.2	1.1±0.2	1.6	1.2	3.7
AS1A4012	4.0±0.2	4.0±0.2	1.2	3.5±0.2	1.1±0.2	1.6	1.2	3.7
AS1A4018	4.0±0.2	4.0±0.2	1.8	3.4±0.2	1.1±0.2	1.6	1.2	3.7
AS1A4020	4.0±0.2	4.0±0.2	2.0	3.2±0.2	1.1±0.2	1.6	1.2	3.7
AS1A4026	4.0±0.2	4.0±0.2	2.6	3.2±0.2	1.1±0.2	1.6	1.2	3.7
AS1A4030	4.0±0.2	4.0±0.2	3.0	3.2±0.2	1.1±0.2	1.6	1.2	3.7
AS1A453228	4.5±0.2	3.2±0.2	2.8	2.65±0.2	1.2±0.2	1.5	1.5	3.3
AS1A5020	5.0±0.2	5.0±0.2	2.0	4.0±0.2	1.5±0.2	1.8	1.6	4.2
AS1A5030	5.0±0.2	5.0±0.2	3.0	4.2±0.2	1.5±0.2	1.8	1.6	4.2
AS1A5040	5.0±0.2	5.0±0.2	4.0	4.0±0.2	1.5±0.2	1.8	1.6	4.2
AS1A6020	6.0±0.2	6.0±0.2	2.0	4.9±0.2	1.65±0.2	2.8	1.8	5.7
AS1A6028	6.0±0.2	6.0±0.2	2.8	4.9±0.2	1.65±0.2	2.8	1.8	5.7
AS1A6045	6.0±0.2	6.0±0.2	4.5	4.9±0.2	1.65±0.2	2.8	1.8	5.7
AS1A757254	7.5±0.3	7.2±0.3	5.4	/	2.0±0.3	3.8	2.2	7.5
AS1A8030	8.0±0.2	8.0±0.2	3.0	6.8±0.3	2.0±0.3	3.8	2.2	7.5
AS1A8040	8.0±0.2	8.0±0.2	4.0	6.8±0.3	2.0±0.3	3.8	2.2	7.5

Specifications

AS1A201210 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A201210R24MT	0.24±20%	0.046	0.038	2.28	2.55	1.30	1.55
AS1A201210R47MT	0.47±20%	0.069	0.057	1.75	1.97	1.05	1.25
AS1A2012101R0MT	1.0±20%	0.130	0.100	1.00	1.15	0.90	1.00
AS1A2012101R5MT	1.5±20%	0.195	0.150	0.90	1.05	0.80	0.90
AS1A2012102R2MT	2.2±20%	0.286	0.220	0.70	0.80	0.70	0.80
AS1A2012103R3KT	3.3±10%	0.500	0.416	0.65	0.75	0.65	0.75

Specifications

AS1A201610 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A201610R10MT	0.10±20%	0.023	0.019	6.05	6.60	3.30	3.70
AS1A201610R24MT	0.24±20%	0.030	0.025	3.00	3.60	2.90	3.30
AS1A201610R33MT	0.33±20%	0.038	0.032	2.50	3.00	2.45	2.75
AS1A201610R68MT	0.68±20%	0.078	0.065	2.10	2.45	1.80	2.10
AS1A201610R0MT	1.0±20%	0.110	0.092	1.60	1.80	1.55	1.80
AS1A201610R5MT	1.5±20%	0.173	0.144	1.20	1.40	1.20	1.35
AS1A201610R2MT	2.2±20%	0.215	0.179	1.00	1.25	1.10	1.25
AS1A201610R3MT	3.3±20%	0.342	0.285	0.90	1.05	0.85	0.95
AS1A201610R7MT	4.7±20%	0.378	0.315	0.70	0.85	0.80	0.90
AS1A201610R8MT	6.8±20%	0.673	0.561	0.65	0.80	0.60	0.70
AS1A201610R100MT	10±20%	1.150	0.960	0.60	0.70	0.45	0.50
AS1A201610R150MT	15±20%	1.500	1.250	0.45	0.60	0.40	0.45
AS1A201610R220MT	22±20%	1.900	1.580	0.38	0.48	0.35	0.40

AS1A201612 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A201612R33MT	0.33±20%	0.040	0.033	3.15	4.00	2.50	2.80
AS1A201612R47MT	0.47±20%	0.057	0.047	2.60	3.40	2.00	2.30
AS1A201612R0MT	1.0±20%	0.100	0.083	1.70	1.90	1.60	1.80
AS1A201612R2MT	2.2±20%	0.185	0.154	1.30	1.60	1.15	1.30
AS1A201612R3MT	3.3±20%	0.286	0.238	1.10	1.30	0.95	1.00
AS1A201612R3JT	3.3±5%	0.400	0.332	1.40	1.47	0.80	0.90
AS1A201612R7MT	4.7±20%	0.358	0.298	0.90	1.15	0.80	0.95
AS1A201612R100MT	10±20%	0.888	0.740	0.65	0.75	0.50	0.60
AS1A201612R220MT	22±20%	1.780	1.480	0.40	0.50	0.36	0.40

AS1A2012 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A2012R0MT	1.0±20%	0.088	0.073	2.20	2.40	1.65	1.83
AS1A2012R5MT	1.5±20%	0.120	0.100	1.80	1.95	1.40	1.55
AS1A2012R2MT	2.2±20%	0.144	0.120	1.15	1.35	1.10	1.45
AS1A2012R3MT	3.3±20%	0.273	0.227	1.25	1.35	0.90	1.04
AS1A2012R7MT	4.7±20%	0.372	0.310	1.10	1.20	0.75	0.85

Specifications

AS1A252010 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A252010R22MT	0.22±20%	0.026	0.022	3.00	4.00	2.65	3.20
AS1A252010R47MT	0.47±20%	0.054	0.045	3.20	3.70	2.55	2.80
AS1A252010R68MT	0.68±20%	0.066	0.055	2.43	2.80	2.33	2.55
AS1A252010R0MT	1.0±20%	0.082	0.068	2.13	2.45	2.10	2.30
AS1A252010R5MT	1.5±20%	0.126	0.105	1.70	1.95	1.85	2.00
AS1A252010R2MT	2.2±20%	0.171	0.143	1.55	1.80	1.47	1.60
AS1A252010R3MT	3.3±20%	0.270	0.225	1.10	1.30	1.15	1.25
AS1A252010R7MT	4.7±20%	0.360	0.300	1.09	1.25	1.00	1.10
AS1A252010R8MT	6.8±20%	0.475	0.395	0.83	0.95	0.86	1.00
AS1A252010R100MT	10±20%	0.672	0.560	0.70	0.80	0.71	0.80
AS1A252010R150MT	15±20%	1.110	0.925	0.57	0.65	0.56	0.60
AS1A252010R220MT	22±20%	1.630	1.360	0.46	0.50	0.45	0.50

AS1A252012 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A252012R24MT	0.24±20%	0.025	0.021	5.00	5.60	3.20	3.80
AS1A252012R47MT	0.47±20%	0.037	0.031	3.60	4.20	3.15	3.60
AS1A252012R68MT	0.68±20%	0.046	0.036	2.60	3.20	2.25	2.55
AS1A252012R0MT	1.0±20%	0.059	0.049	2.40	2.80	2.10	2.40
AS1A252012R5MT	1.5±20%	0.089	0.074	2.05	2.40	2.00	2.30
AS1A252012R2MT	2.2±20%	0.118	0.098	1.45	1.90	1.75	2.00
AS1A252012R3MT	3.3±20%	0.252	0.210	1.40	1.70	1.20	1.35
AS1A252012R7MT	4.7±20%	0.280	0.240	1.10	1.30	1.05	1.20
AS1A252012R8MT	6.8±20%	0.360	0.300	0.95	1.05	0.95	1.10
AS1A252012R100MT	10±20%	0.552	0.460	0.85	1.00	0.60	0.68
AS1A252012R220MT	22±20%	1.380	1.150	0.55	0.65	0.40	0.45
AS1A252012R330MT	33±20%	2.030	1.690	0.38	0.43	0.30	0.35
AS1A252012R470MT	47±20%	2.640	2.200	0.25	0.35	0.25	0.30
AS1A252012R680MT	68±20%	3.600	3.000	0.26	0.34	0.20	0.25

AS1A322517 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A322517R10MT	0.10±20%	0.012	0.010	8.20	11.0	5.10	5.95
AS1A322517R47MT	0.47±20%	0.029	0.024	4.40	5.20	3.20	4.50
AS1A322517R0MT	1.0±20%	0.043	0.036	3.00	3.50	2.65	3.70
AS1A322517R8MT	1.8±20%	0.108	0.090	3.15	3.55	1.65	2.35
AS1A322517R2MT	2.2±20%	0.077	0.064	2.00	2.30	2.00	2.80
AS1A322517R3MT	3.3±20%	0.120	0.100	1.90	2.20	1.60	2.20
AS1A322517R47MT	4.7±20%	0.186	0.155	1.80	2.10	1.25	1.75
AS1A322517R68MT	6.8±20%	0.264	0.220	1.30	1.60	1.05	1.45
AS1A322517R100MT	10±20%	0.354	0.295	1.20	1.40	0.90	1.20

Specifications

AS1A322517 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A322517150MT	15±20%	0.570	0.475	0.80	1.00	0.70	1.00
AS1A322517220MT	22±20%	0.822	0.685	0.70	0.90	0.60	0.85
AS1A322517330MT	33±20%	1.380	1.150	0.50	0.60	0.40	0.55
AS1A322517470MT	47±20%	2.040	1.700	0.45	0.55	0.35	0.45
AS1A322517560MT	56±20%	1.800	1.500	0.40	0.50	0.35	0.45
AS1A322517680MT	68±20%	2.736	2.280	0.35	0.40	0.33	0.42
AS1A322517101MT	100±20%	3.240	2.700	0.30	0.35	0.30	0.40

AS1A3010 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A3010R47MT	0.47±20%	0.045	0.037	2.70	3.20	2.54	2.90
AS1A30101R0MT	1.0±20%	0.067	0.056	1.80	2.20	2.00	2.30
AS1A30101R5MT	1.5±20%	0.095	0.079	1.70	2.00	1.70	1.95
AS1A30102R2MT	2.2±20%	0.108	0.090	1.30	1.60	1.60	1.80
AS1A30103R3MT	3.3±20%	0.139	0.116	1.00	1.20	1.40	1.60
AS1A30104R7MT	4.7±20%	0.175	0.146	0.75	0.90	1.25	1.40
AS1A30106R8MT	6.8±20%	0.276	0.230	0.72	0.82	1.14	1.30
AS1A3010100MT	10±20%	0.336	0.280	0.57	0.65	0.90	1.00
AS1A3010150MT	15±20%	0.468	0.390	0.35	0.45	0.75	0.85
AS1A3010220MT	22±20%	0.696	0.580	0.30	0.35	0.70	0.80
AS1A3010330MT	33±20%	1.160	0.930	0.25	0.33	0.45	0.55
AS1A3010470MT	47±20%	1.800	1.500	0.24	0.30	0.35	0.40

AS1A3012 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A30121R0MT	1.0±20%	0.048	0.040	2.40	2.95	2.35	2.70
AS1A30121R5MT	1.5±20%	0.059	0.049	1.60	2.10	2.10	2.40
AS1A30122R2MT	2.2±20%	0.086	0.072	1.70	2.10	1.70	1.95
AS1A30123R3MT	3.3±20%	0.120	0.100	1.35	1.50	1.45	1.70
AS1A30124R7MT	4.7±20%	0.263	0.228	1.60	1.80	1.35	1.55
AS1A30126R8MT	6.8±20%	0.229	0.191	0.97	1.10	1.05	1.20
AS1A3012100MT	10±20%	0.480	0.400	1.00	1.20	0.85	1.00
AS1A3012150MT	15±20%	0.456	0.380	0.65	0.70	0.75	0.85
AS1A3012220MT	22±20%	0.731	0.609	0.52	0.55	0.60	0.65
AS1A3012330MT	33±20%	1.296	1.080	0.42	0.56	0.37	0.51

Specifications

AS1A3015 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A3015R68MT	0.68±20%	0.028	0.023	3.50	4.00	3.20	3.60
AS1A30151R0MT	1.0±20%	0.032	0.027	2.35	2.65	2.95	3.40
AS1A30152R2MT	2.2±20%	0.078	0.065	1.80	2.00	2.10	2.40
AS1A30153R3MT	3.3±20%	0.101	0.084	1.52	1.72	1.65	1.90
AS1A30154R7MT	4.7±20%	0.120	0.100	1.15	1.30	1.50	1.75
AS1A30156R8MT	6.8±20%	0.186	0.155	1.04	1.18	1.30	1.50
AS1A3015100MT	10±20%	0.288	0.240	0.81	0.92	1.05	1.20
AS1A3015150MT	15±20%	0.360	0.300	0.66	0.75	0.90	1.05
AS1A3015220MT	22±20%	0.546	0.455	0.57	0.64	0.80	0.92
AS1A3015330MT	33±20%	0.688	0.573	0.44	0.50	0.65	0.75
AS1A3015470MT	47±20%	1.032	0.860	0.37	0.42	0.55	0.63
AS1A3015560MT	56±20%	1.320	1.100	0.32	0.39	0.48	0.55
AS1A3015680MT	68±20%	2.280	1.900	0.31	0.35	0.47	0.54
AS1A3015101MT	100±20%	2.830	2.360	0.26	0.29	0.30	0.35
AS1A3015101MTY01	100±20%	2.100	1.750	0.21	0.25	0.35	0.40

AS1A4010 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A40101R0MT	1.0±20%	0.068	0.056	1.90	2.20	1.90	2.20
AS1A40102R2MT	2.2±20%	0.102	0.085	1.20	1.61	1.50	1.80
AS1A40103R3MT	3.3±20%	0.144	0.120	1.10	1.30	1.25	1.50
AS1A40104R7MT	4.7±20%	0.168	0.140	0.95	1.10	1.20	1.45
AS1A40106R8MT	6.8±20%	0.240	0.200	0.80	0.89	1.00	1.20
AS1A4010100MT	10±20%	0.360	0.300	0.62	0.76	0.75	0.86
AS1A4010150MT	15±20%	0.516	0.430	0.50	0.64	0.60	0.70
AS1A4010220MT	22±20%	0.684	0.570	0.45	0.54	0.50	0.60

AS1A4012 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A40121R0MT	1.0±20%	0.050	0.042	2.80	3.10	2.20	2.67
AS1A40122R2MT	2.2±20%	0.072	0.060	1.65	1.95	2.00	2.30
AS1A40123R3MT	3.3±20%	0.080	0.067	1.35	1.60	1.70	1.88
AS1A40124R7MT	4.7±20%	0.114	0.095	1.10	1.25	1.50	1.80
AS1A40126R8MT	6.8±20%	0.156	0.130	0.90	1.05	1.30	1.40
AS1A4012100MT	10±20%	0.232	0.193	0.80	0.99	1.10	1.20
AS1A4012150MT	15±20%	0.354	0.295	0.60	0.75	0.70	0.75
AS1A4012220MT	22±20%	0.480	0.400	0.50	0.60	0.62	0.65

AS1A4018 Series

Specifications

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A40181R0MT	1.0±20%	0.032	0.027	4.80	5.50	3.15	3.55
AS1A40181R5MT	1.5±20%	0.038	0.032	3.75	4.45	2.85	3.20
AS1A40182R2MT	2.2±20%	0.050	0.042	3.30	3.80	2.50	2.85
AS1A40183R3MT	3.3±20%	0.066	0.055	2.30	2.70	2.20	2.45
AS1A40184R7MT	4.7±20%	0.087	0.073	2.05	2.30	1.90	2.15
AS1A40185R6MT	5.6±20%	0.100	0.083	1.75	2.15	1.70	2.00
AS1A40186R8MT	6.8±20%	0.126	0.105	1.85	2.05	1.60	1.80
AS1A4018100MT	10±20%	0.180	0.150	1.35	1.55	1.30	1.50
AS1A4018150MT	15±20%	0.252	0.210	1.20	1.35	1.10	1.25
AS1A4018220MT	22±20%	0.348	0.290	0.85	1.05	0.95	1.05
AS1A4018330MT	33±20%	0.564	0.470	0.72	0.90	0.75	0.86
AS1A4018470MT	47±20%	0.852	0.710	0.75	0.85	0.60	0.65
AS1A4018101MT	100±20%	1.980	1.650	0.46	0.56	0.39	0.45
AS1A4018151MT	150±20%	2.760	2.300	0.35	0.40	0.30	0.35
AS1A4018221MT	220±20%	3.840	3.200	0.33	0.38	0.27	0.31

AS1A4020 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A40201R0MT	1.0±20%	0.033	0.027	5.40	6.50	3.40	3.90
AS1A40201R5MT	1.5±20%	0.044	0.037	4.75	5.50	3.00	3.40
AS1A40202R2MT	2.2±20%	0.055	0.046	3.60	4.30	2.70	3.10
AS1A40203R3MT	3.3±20%	0.076	0.063	3.00	3.40	2.35	2.65
AS1A40204R7MT	4.7±20%	0.090	0.075	2.35	2.50	2.10	2.40
AS1A40205R6MT	5.6±20%	0.114	0.095	2.10	2.40	1.90	2.15
AS1A40206R8MT	6.8±20%	0.160	0.133	2.20	2.40	1.60	1.80
AS1A4020100MT	10±20%	0.180	0.150	1.50	1.70	1.50	1.70
AS1A4020150MT	15±20%	0.296	0.246	1.35	1.50	1.15	1.30
AS1A4020220MT	22±20%	0.420	0.350	1.05	1.30	0.95	1.10
AS1A4020470MT	47±20%	0.696	0.580	0.70	0.80	0.80	0.85
AS1A4020101MT	100±20%	1.512	1.260	0.46	0.57	0.50	0.55

AS1A4026 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A4026R47MT	0.47±20%	0.027	0.021	9.00	10.3	3.40	3.85
AS1A40261R0MT	1.0±20%	0.036	0.030	5.85	7.30	2.85	3.25
AS1A40261R5MT	1.5±20%	0.042	0.035	4.50	5.45	2.65	3.00
AS1A40262R2MT	2.2±20%	0.054	0.045	3.80	4.60	2.30	2.65
AS1A40263R3MT	3.3±20%	0.066	0.055	3.00	3.80	2.10	2.40
AS1A40264R7MT	4.7±20%	0.092	0.077	2.70	3.20	1.90	2.20
AS1A40265R6MT	5.6±20%	0.104	0.088	2.45	2.95	1.65	1.90
AS1A40266R8MT	6.8±20%	0.104	0.088	1.90	2.30	1.65	1.90

Specifications

AS1A4026 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A4026100MT	10±20%	0.168	0.140	1.75	2.10	1.30	1.50
AS1A4026150MT	15±20%	0.234	0.195	1.50	1.80	1.10	1.30
AS1A4026220MT	22±20%	0.342	0.285	1.20	1.40	0.90	1.05
AS1A4026330MT	33±20%	0.526	0.438	0.90	1.15	0.75	0.85
AS1A4026470MT	47±20%	0.624	0.526	0.80	0.90	0.65	0.75
AS1A4026101MT	100±20%	1.396	1.163	0.55	0.70	0.45	0.50
AS1A4026331MT	330±20%	5.400	4.500	0.33	0.40	0.23	0.26

AS1A4030 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A40301R0MT	1.0±20%	0.018	0.014	6.80	7.90	3.90	4.50
AS1A40302R2MT	2.2±20%	0.040	0.033	5.00	5.80	3.00	3.50
AS1A40303R3MT	3.3±20%	0.052	0.040	3.60	4.20	2.50	2.90
AS1A40304R7MT	4.7±20%	0.072	0.060	3.50	3.80	2.10	2.45
AS1A40306R8MT	6.8±20%	0.101	0.084	2.75	3.10	1.90	2.20
AS1A4030100MT	10±20%	0.130	0.100	1.95	2.40	1.60	1.85
AS1A4030150MT	15±20%	0.221	0.170	1.65	2.00	1.25	1.45
AS1A4030220MT	22±20%	0.290	0.240	1.50	1.80	1.10	1.30
AS1A4030330MT	33±20%	0.420	0.360	1.10	1.30	0.90	1.05
AS1A4030470MT	47±20%	0.579	0.488	0.95	1.05	0.75	0.90
AS1A4030680MT	68±20%	0.950	0.792	0.75	0.90	0.60	0.70
AS1A4030101MT	100±20%	1.380	1.080	0.70	0.80	0.50	0.60

AS1A453228 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A4532281R0MT	1.0±20%	0.032	0.026	3.40	3.90	3.30	3.80
AS1A4532282R2MT	2.2±20%	0.051	0.042	2.30	2.65	2.50	2.85
AS1A4532283R3MT	3.3±20%	0.063	0.052	1.80	2.10	2.10	2.40
AS1A4532284R7MT	4.7±20%	0.090	0.075	1.40	1.60	1.60	1.85
AS1A4532286R8MT	6.8±20%	0.118	0.098	1.20	1.40	1.40	1.60
AS1A4532288R2MT	8.2±20%	0.154	0.128	1.10	1.25	1.30	1.50
AS1A453228100MT	10±20%	0.176	0.147	1.05	1.20	1.17	1.35
AS1A453228150MT	15±20%	0.300	0.250	0.85	0.95	1.00	1.15
AS1A453228220MT	22±20%	0.392	0.327	0.70	0.80	0.78	0.90
AS1A453228470MT	47±20%	0.862	0.718	0.47	0.55	0.52	0.60
AS1A453228101MT	100±20%	1.850	1.540	0.32	0.35	0.32	0.35
AS1A453228151MT	150±20%	2.830	2.360	0.28	0.30	0.26	0.30
AS1A453228221MT	220±20%	3.480	2.900	0.22	0.25	0.24	0.28
AS1A453228471MT	470±20%	6.480	5.400	0.20	0.25	0.17	0.20

Specifications

AS1A5020 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A5020R47MT	0.47±20%	0.015	0.012	7.70	9.00	5.20	6.00
AS1A50201R0MT	1.0±20%	0.024	0.019	5.80	7.00	4.10	4.70
AS1A50201R2MT	1.2±20%	0.024	0.019	5.40	6.50	3.80	4.30
AS1A50201R5MT	1.5±20%	0.030	0.025	5.00	6.00	3.50	4.00
AS1A50202R2MT	2.2±20%	0.036	0.030	4.00	4.50	3.30	3.80
AS1A50202R7MT	2.7±20%	0.042	0.035	3.80	4.20	3.10	3.50
AS1A50203R3MT	3.3±20%	0.057	0.047	3.50	4.00	2.65	3.05
AS1A50204R7MT	4.7±20%	0.070	0.058	2.80	3.30	2.40	2.70
AS1A50205R6MT	5.6±20%	0.083	0.069	2.40	3.00	2.10	2.40
AS1A50206R8MT	6.8±20%	0.100	0.083	2.50	3.10	1.85	2.15
AS1A5020100MT	10±20%	0.127	0.106	1.80	2.00	1.60	1.80
AS1A5020150MT	15±20%	0.224	0.187	1.70	1.95	1.10	1.20
AS1A5020220MT	22±20%	0.311	0.259	1.30	1.50	1.00	1.15
AS1A5020330MT	33±20%	0.402	0.335	0.80	1.10	0.80	0.90
AS1A5020470MT	47±20%	0.648	0.540	0.85	1.10	0.70	0.80

AS1A5030 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A5030R47MT	0.47±20%	0.012	0.009	11.0	12.0	6.10	7.00
AS1A50301R0MT	1.0±20%	0.018	0.014	8.50	9.50	4.85	5.50
AS1A50301R5MT	1.5±20%	0.023	0.018	6.30	6.80	4.30	4.90
AS1A50302R2MT	2.2±20%	0.030	0.023	5.10	5.60	3.90	4.40
AS1A50304R7MT	4.7±20%	0.062	0.052	3.50	4.20	2.55	2.90
AS1A50306R8MT	6.8±20%	0.085	0.065	3.00	3.40	2.20	2.50
AS1A5030100MT	10±20%	0.115	0.096	2.50	2.80	1.82	2.06
AS1A5030150MT	15±20%	0.163	0.125	1.60	1.80	1.60	1.80
AS1A5030220MT	22±20%	0.264	0.220	1.65	2.00	1.21	1.37
AS1A5030330MT	33±20%	0.319	0.245	1.15	1.25	1.10	1.30
AS1A5030470MT	47±20%	0.455	0.350	0.95	1.10	0.95	1.10
AS1A5030101MT	100±20%	0.953	0.733	0.60	0.70	0.60	0.70
AS1A5030221MT	220±20%	1.836	1.412	0.38	0.41	0.46	0.55
AS1A5030471MT	470±20%	3.978	3.060	0.28	0.38	0.30	0.35

AS1A5040 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A50401R0MT	1.0±20%	0.013	0.010	7.90	8.80	5.30	5.90
AS1A50401R5MT	1.5±20%	0.017	0.013	7.10	8.00	4.60	5.10
AS1A50402R2MT	2.2±20%	0.025	0.019	6.40	7.40	3.80	4.30
AS1A50403R3MT	3.3±20%	0.031	0.024	4.40	5.00	3.50	3.90

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AS1A50404R7MT	4.7±20%	0.042	0.032	3.90	4.70	3.00	3.30
AS1A50406R8MT	6.8±20%	0.056	0.043	3.40	3.80	2.50	2.80

AS1A5040 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A5040100MT	10±20%	0.073	0.056	2.55	3.00	2.20	2.45
AS1A5040150MT	15±20%	0.112	0.086	2.00	2.40	1.80	2.05
AS1A5040220MT	22±20%	0.160	0.123	1.75	2.05	1.50	1.60
AS1A5040330MT	33±20%	0.241	0.185	1.30	1.50	1.20	1.40
AS1A5040470MT	47±20%	0.354	0.272	1.10	1.30	1.00	1.10
AS1A5040680MT	68±20%	0.520	0.400	0.90	1.10	0.80	0.90
AS1A5040101MT	100±20%	0.728	0.560	0.75	0.90	0.70	0.80
AS1A5040151MT	150±20%	1.027	0.790	0.65	0.75	0.60	0.70
AS1A5040221MT	220±20%	1.469	1.130	0.50	0.60	0.40	0.50

AS1A6020 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A60201R0MT	1.0±20%	0.025	0.019	6.40	7.40	3.70	4.20
AS1A60201R5MT	1.5±20%	0.034	0.026	4.80	5.40	3.30	3.70
AS1A60202R2MT	2.2±20%	0.044	0.034	4.00	4.50	2.90	3.30
AS1A60203R3MT	3.3±20%	0.052	0.040	2.80	3.40	2.75	3.10
AS1A60204R7MT	4.7±20%	0.075	0.058	2.40	3.00	2.15	2.50
AS1A60206R8MT	6.8±20%	0.111	0.085	2.30	2.60	1.70	1.90
AS1A6020100MT	10±20%	0.163	0.125	1.90	2.24	1.50	1.70
AS1A6020220MT	22±20%	0.377	0.290	1.25	1.47	0.95	1.10
AS1A6020470MT	47±20%	0.663	0.510	0.80	0.90	0.72	0.80

AS1A6028 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A60281R0MT	1.0±20%	0.013	0.010	6.00	7.50	5.20	5.90
AS1A60281R5MT	1.5±20%	0.020	0.015	6.50	7.60	4.20	4.70
AS1A60282R2MT	2.2±20%	0.024	0.018	5.00	6.00	3.70	4.20
AS1A60283R3MT	3.3±20%	0.033	0.025	4.00	4.50	3.30	3.70
AS1A60284R7MT	4.7±20%	0.040	0.031	2.70	3.30	3.00	3.40
AS1A60286R8MT	6.8±20%	0.056	0.043	2.60	3.00	2.50	2.90
AS1A60288R2MT	8.2±20%	0.072	0.055	2.30	2.70	2.25	2.50
AS1A6028100MT	10±20%	0.079	0.061	1.90	2.20	1.95	2.25
AS1A6028150MT	15±20%	0.124	0.095	1.70	1.90	1.70	1.90
AS1A6028220MT	22±20%	0.187	0.144	1.50	1.80	1.35	1.50
AS1A6028330MT	33±20%	0.278	0.214	1.20	1.50	1.10	1.25

Specifications

AS1A6028470MT	47±20%	0.390	0.300	1.00	1.20	0.92	1.05
AS1A6028680MT	68±20%	0.546	0.420	0.88	0.98	0.77	0.88
AS1A6028101MT	100±20%	0.780	0.600	0.73	0.82	0.66	0.75
AS1A6028221MT	220±20%	1.820	1.400	0.50	0.60	0.50	0.55

AS1A6045 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A60451R0MT	1.0±20%	0.013	0.010	13.0	14.0	5.30	5.90
AS1A60451R5MT	1.5±20%	0.016	0.012	10.0	11.5	5.50	6.40
AS1A60452R2MT	2.2±20%	0.021	0.016	8.50	9.50	4.40	5.10
AS1A60453R3MT	3.3±20%	0.026	0.020	7.10	8.10	4.00	4.50
AS1A60454R7MT	4.7±20%	0.037	0.028	6.00	7.00	3.60	3.90
AS1A60456R8MT	6.8±20%	0.056	0.043	5.10	5.90	3.10	3.50
AS1A6045100MT	10±20%	0.068	0.052	4.00	4.60	2.60	3.20
AS1A6045150MT	15±20%	0.092	0.071	3.10	3.80	2.30	2.65
AS1A6045220MT	22±20%	0.143	0.110	2.60	3.25	1.80	2.10
AS1A6045330MT	33±20%	0.221	0.170	2.00	2.50	1.25	1.35
AS1A6045470MT	47±20%	0.295	0.227	1.55	1.70	1.20	1.30
AS1A6045560MT	56±20%	0.338	0.26	1.60	1.90	1.10	1.20
AS1A6045680MT	68±20%	0.390	0.300	1.40	1.80	1.05	1.30
AS1A6045820MT	82±20%	0.507	0.390	1.30	1.60	0.90	1.05
AS1A6045101MT	100±20%	0.593	0.456	1.10	1.45	0.85	0.95
AS1A6045121MT	120±20%	0.650	0.500	1.05	1.30	0.80	0.90
AS1A6045151MT	150±20%	0.832	0.640	1.00	1.20	0.75	0.85
AS1A6045181MT	180±20%	0.969	0.745	1.00	1.12	0.68	0.78
AS1A6045221MT	220±20%	1.170	0.900	0.80	1.00	0.60	0.70
AS1A6045331MT	330±20%	1.820	1.400	0.60	0.80	0.45	0.55
AS1A6045471MT	470±20%	2.665	2.050	0.50	0.70	0.35	0.45

AS1A757254 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A7572543R3MT	3.3±20%	0.020	0.017	10.0	10.5	7.00	7.50
AS1A757254100MT	10±20%	0.045	0.038	6.00	6.30	4.00	4.30

AS1A8030 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A80301R0MT	1.0±20%	0.012	0.009	7.80	9.30	6.20	7.60
AS1A80301R5MT	1.5±20%	0.016	0.012	6.20	7.80	5.30	6.40
AS1A80302R2MT	2.2±20%	0.020	0.015	4.90	6.10	4.80	5.60
AS1A80303R3MT	3.3±20%	0.025	0.019	4.20	5.20	4.30	5.10
AS1A80304R7MT	4.7±20%	0.029	0.022	3.60	4.40	4.00	4.70
AS1A80306R8MT	6.8±20%	0.038	0.029	3.00	3.60	3.40	4.00
AS1A8030100MT	10±20%	0.059	0.045	2.40	2.90	2.50	3.00

Specifications

AS1A8030150MT	15±20%	0.078	0.060	2.00	2.30	2.20	2.60
AS1A8030220MT	22±20%	0.117	0.090	1.75	2.00	1.80	2.10
AS1A8030330MT	33±20%	0.156	0.120	1.30	1.60	1.50	1.80
AS1A8030470MT	47±20%	0.221	0.170	1.10	1.40	1.30	1.70

AS1A8040 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	1MHz/1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	Ω		A		A	
Symbol	L	DCR		Isat		Irms	
AS1A80401R0MT	1.0±20%	0.010	0.008	10.0	12.0	7.50	8.50
AS1A80401R5MT	1.5±20%	0.013	0.010	10.0	11.0	7.00	8.10
AS1A80403R3MT	3.3±20%	0.022	0.017	7.10	8.00	5.20	5.90
AS1A80404R7MT	4.7±20%	0.024	0.018	5.40	6.50	4.10	5.20
AS1A80406R8MT	6.8±20%	0.035	0.029	5.40	6.30	3.30	3.90
AS1A8040100MT	10±20%	0.044	0.034	4.20	4.70	3.10	3.50
AS1A8040150MT	15±20%	0.060	0.050	2.90	3.20	2.40	3.00
AS1A8040220MT	22±20%	0.080	0.066	2.40	2.70	2.20	2.60
AS1A8040330MT	33±20%	0.130	0.100	2.00	2.30	1.70	1.90
AS1A8040470MT	47±20%	0.182	0.140	1.60	2.00	1.50	1.60
AS1A8040680MT	68±20%	0.240	0.200	1.45	1.80	1.25	1.35

※1: Rated current: Isat(Max) or Irms(Max), whichever is smaller.

※2: Saturation Current: Typ. Value, DC current at which the inductance drops approximately 30% from its value without current;

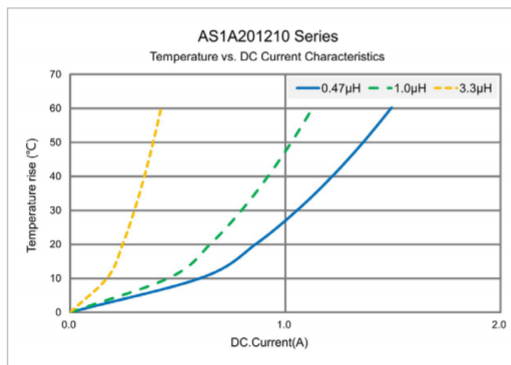
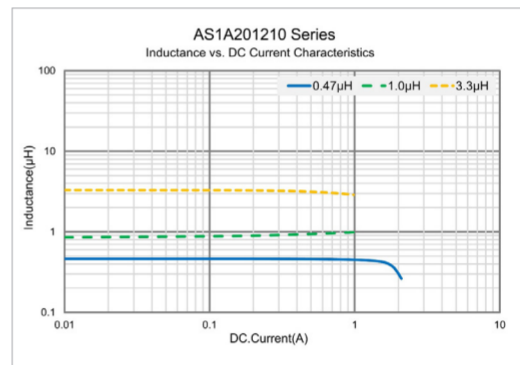
※3: Heat Rating Current: DC current that causes an approximate ΔT of 40°C from 20°C ambient.

※4: DC withstand voltage: Typ.300V.

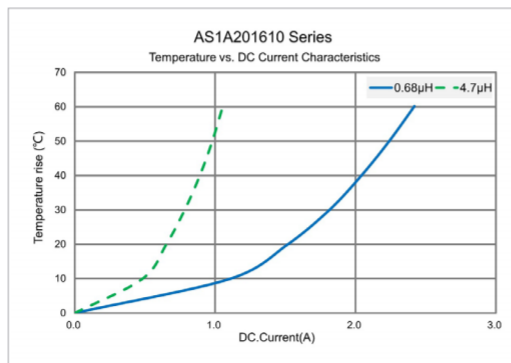
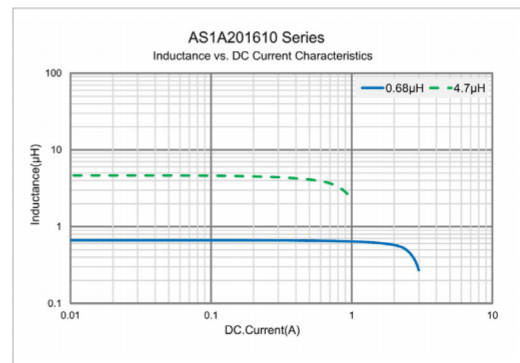
The part temperature (ambient + temp. rise) should not exceed 150°C under worst case operating conditions. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Typical
Electrical
Characteristics

AS1A201210 Series

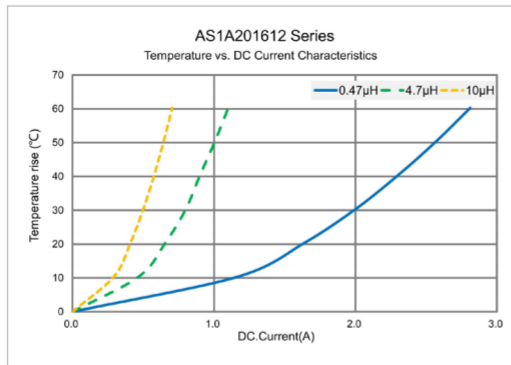
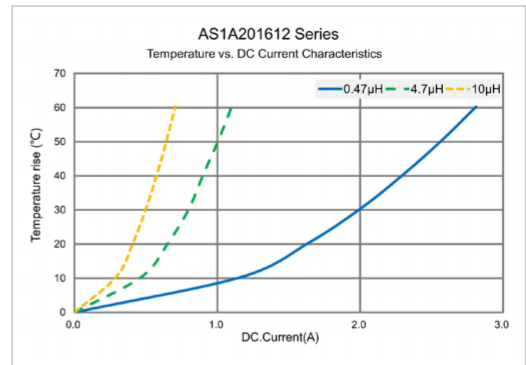


AS1A201610 Series

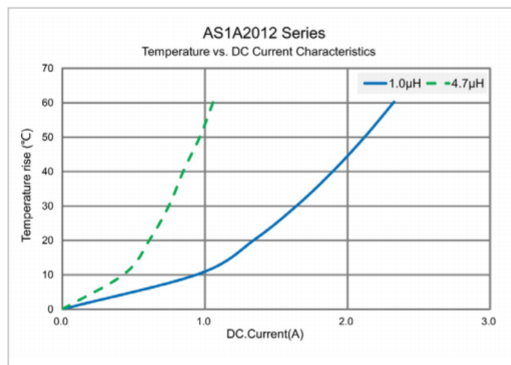
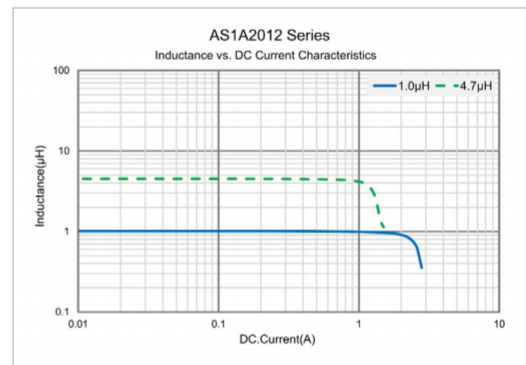


**Typical
Electrical
Characteristics**

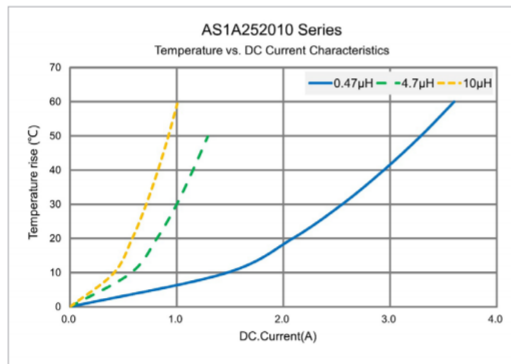
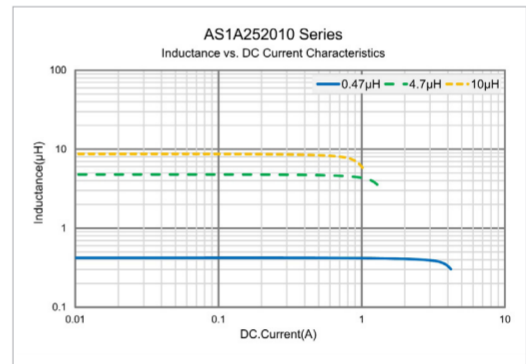
AS1A201612 Series



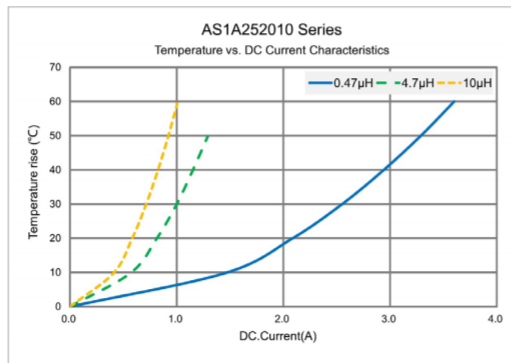
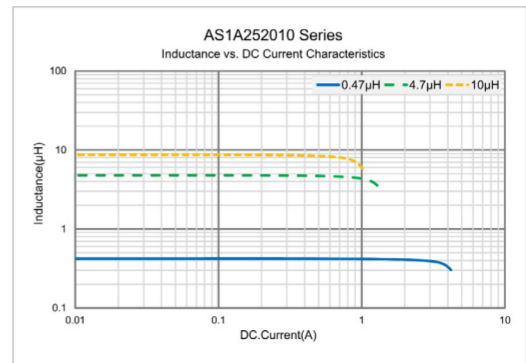
AS1A2012 Series



AS1A252010 Series

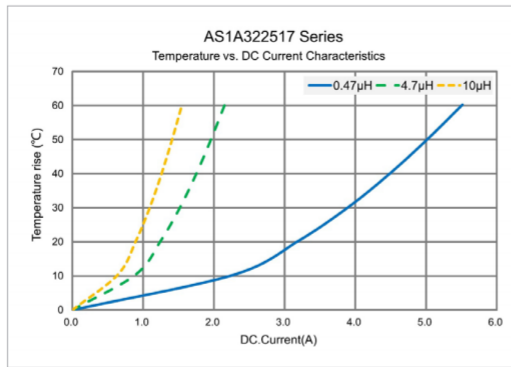
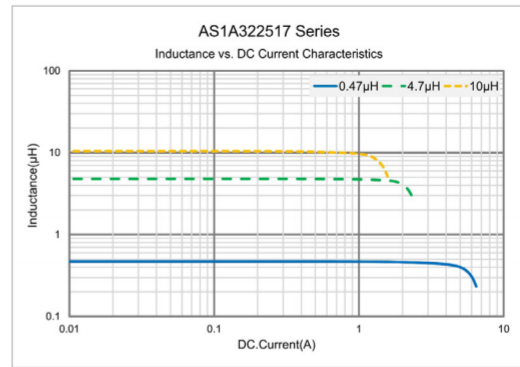


AS1A252012 Series

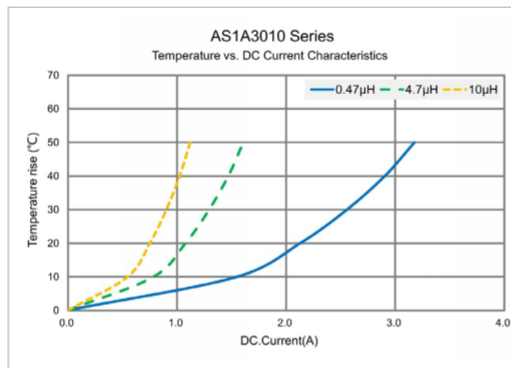
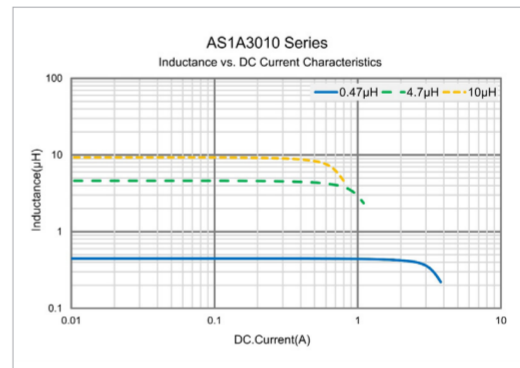


Typical Electrical Characteristics

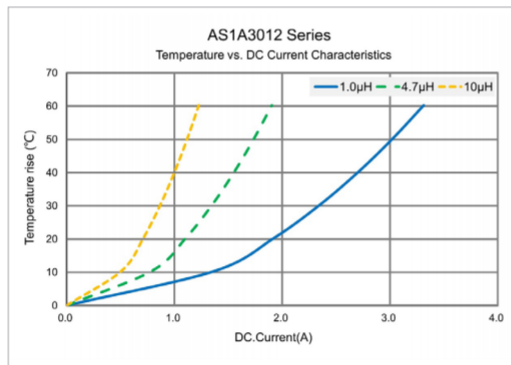
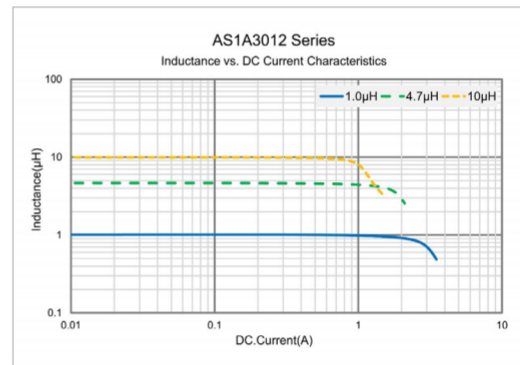
AS1A322517 Series



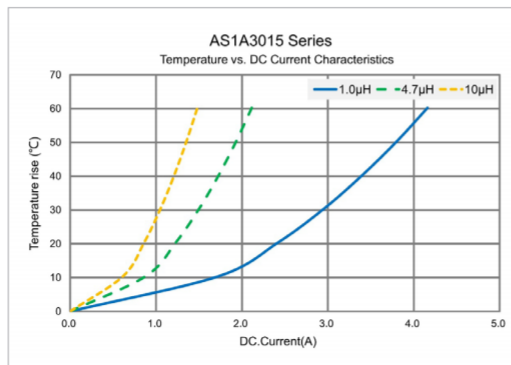
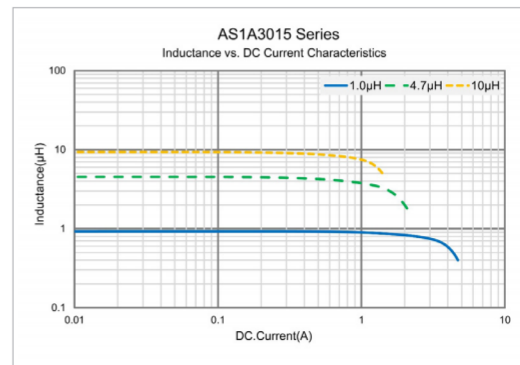
AS1A3010 Series



AS1A3012 Series

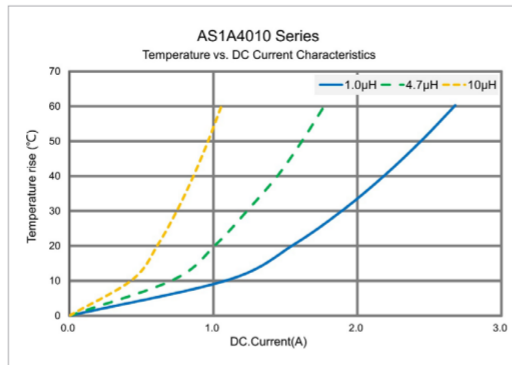
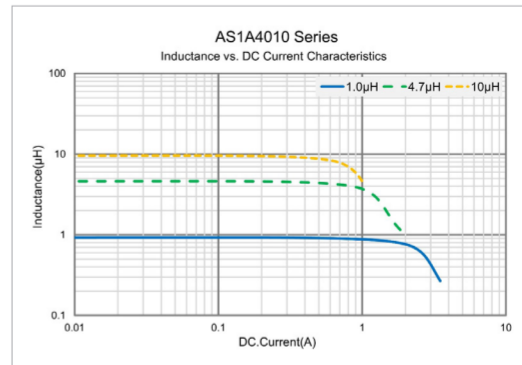


AS1A3015 Series

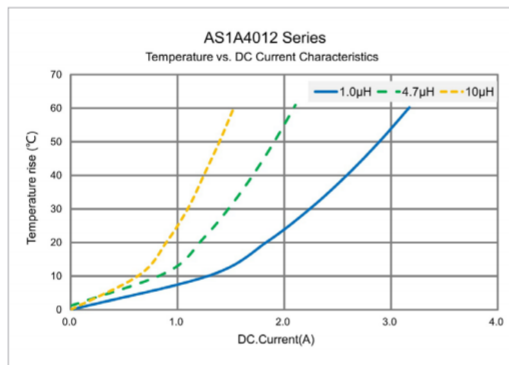
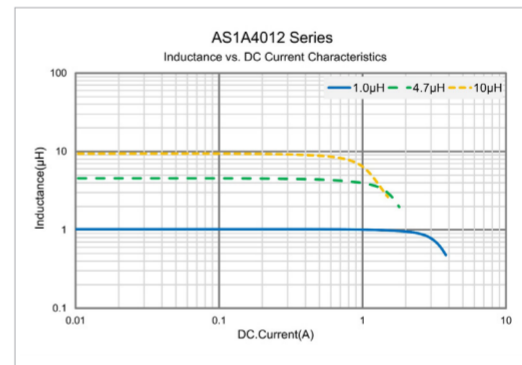


**Typical
Electrical
Characteristics**

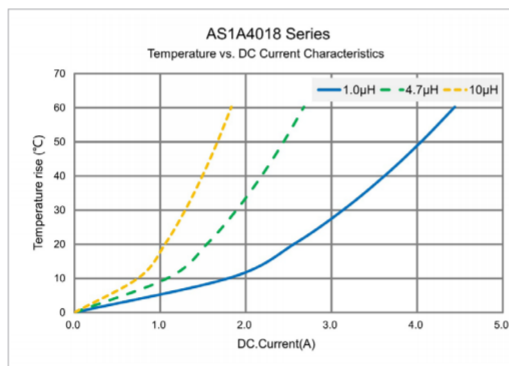
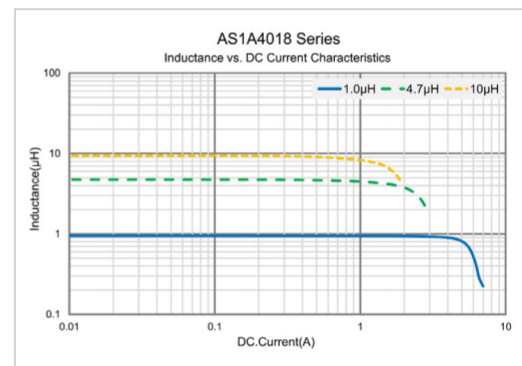
AS1A4010 Series



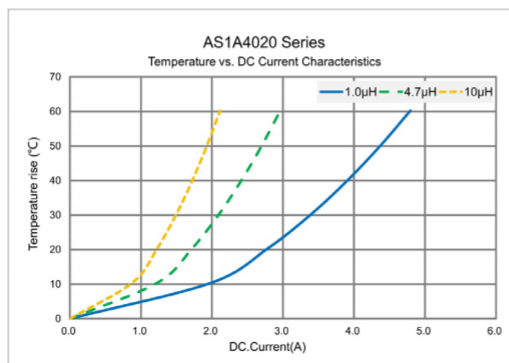
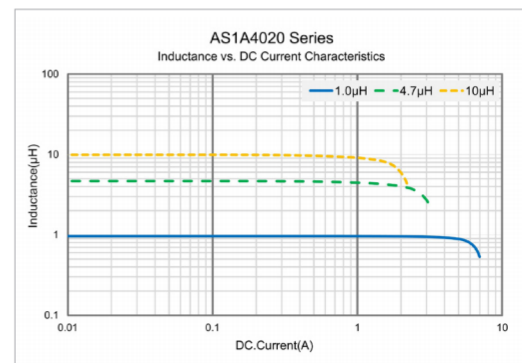
AS1A4012 Series



AS1A4018 Series

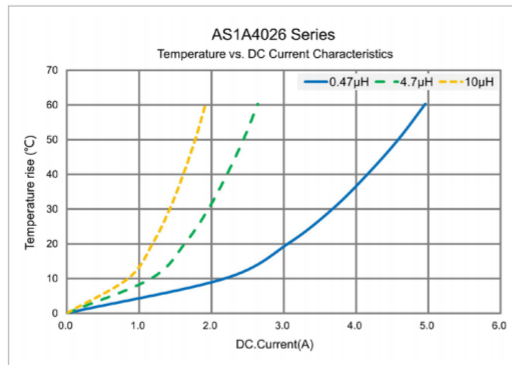
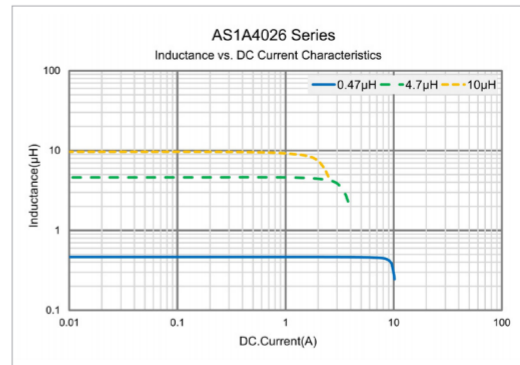


AS1A4020 Series

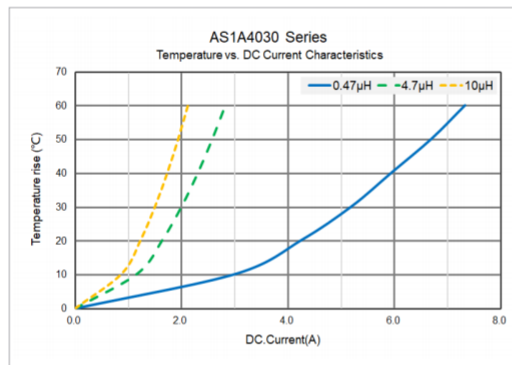
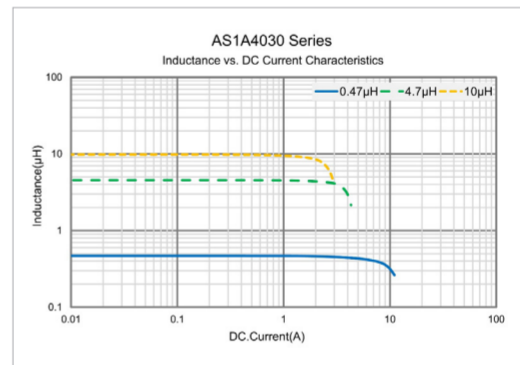


Typical Electrical Characteristics

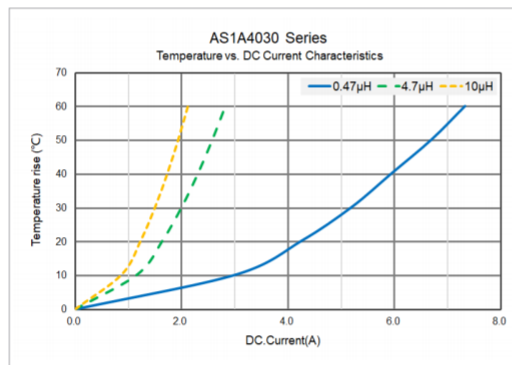
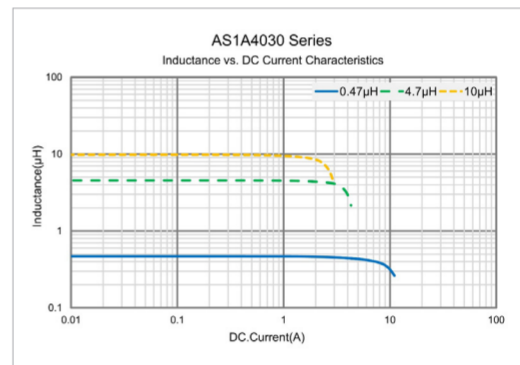
AS1A4026 Series



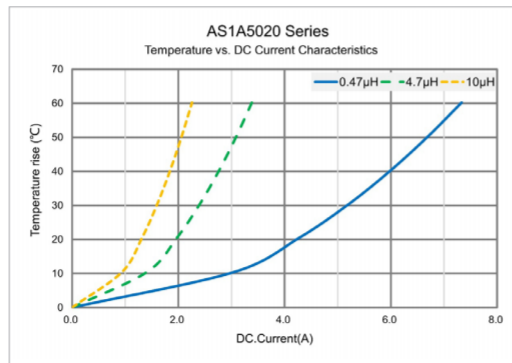
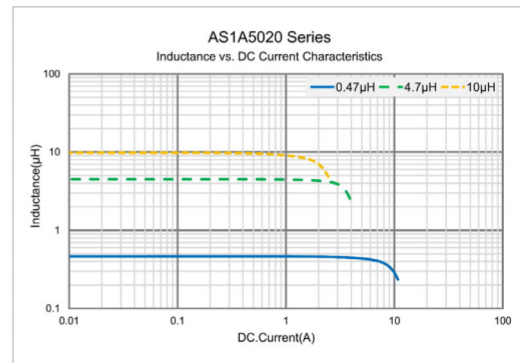
AS1A4030 Series



AS1A453228 Series

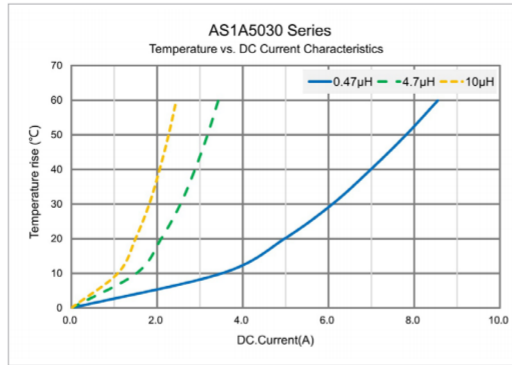
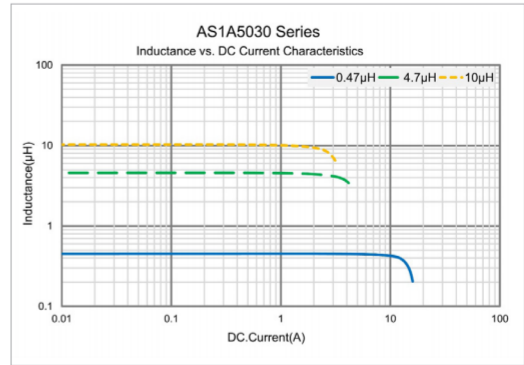


AS1A5020 Series

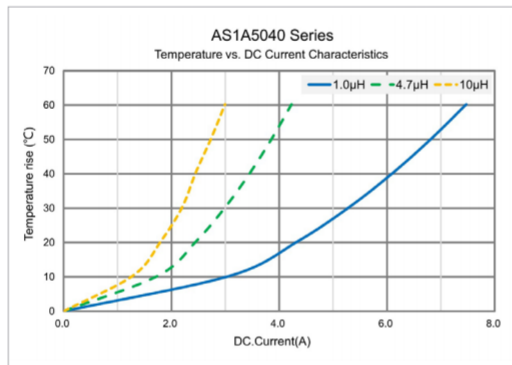
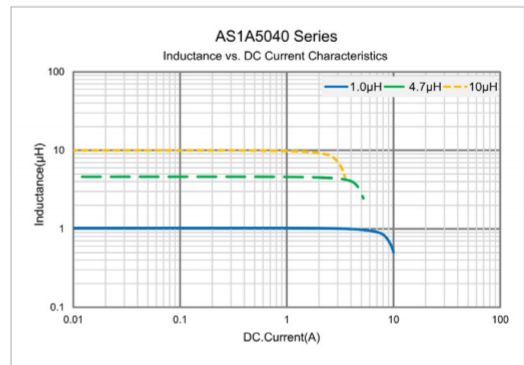


**Typical
Electrical
Characteristics**

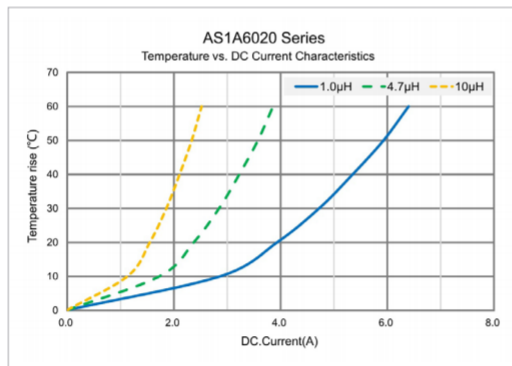
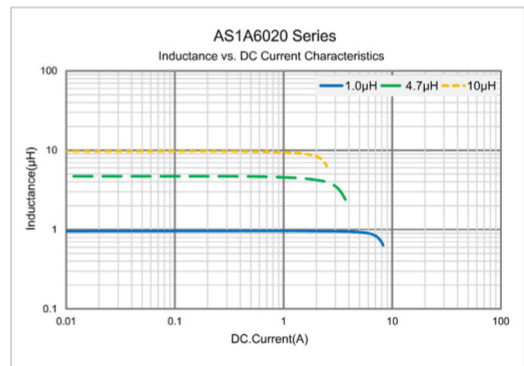
AS1A5030 Series



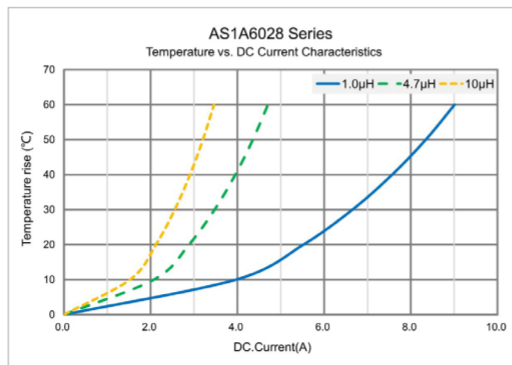
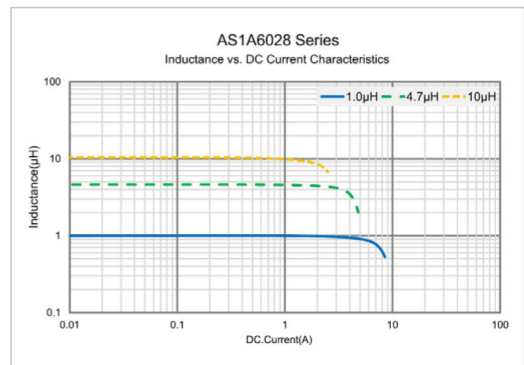
AS1A5040 Series



AS1A6020 Series

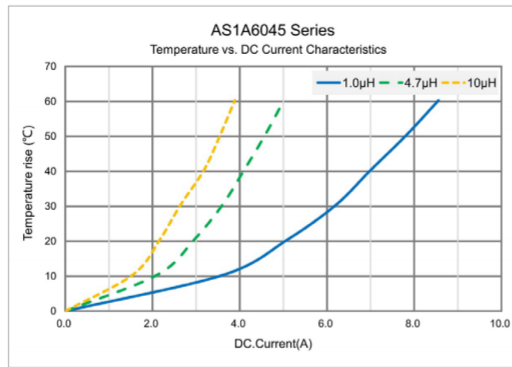
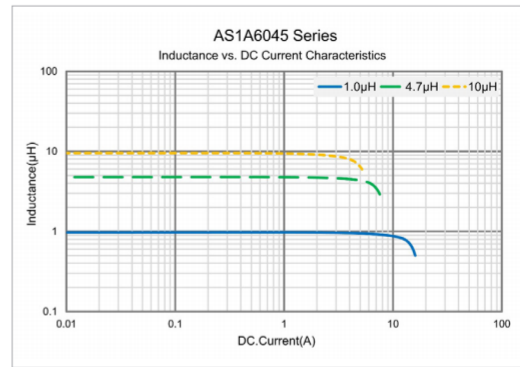


AS1A6028 Series

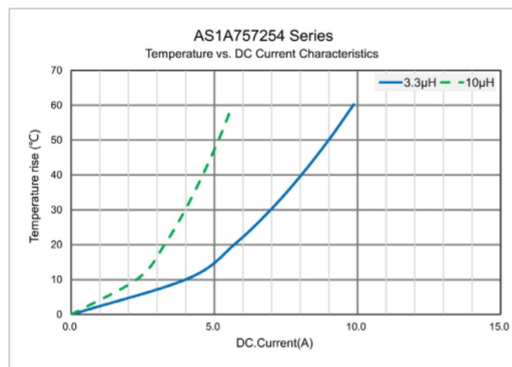
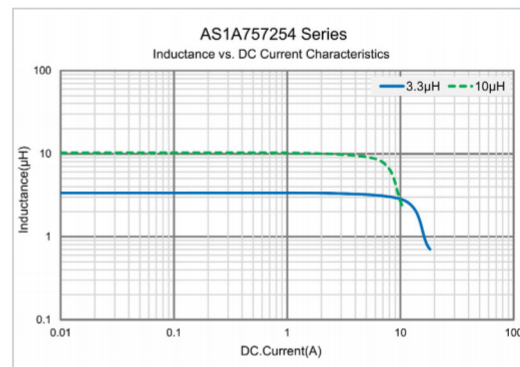


Typical Electrical Characteristics

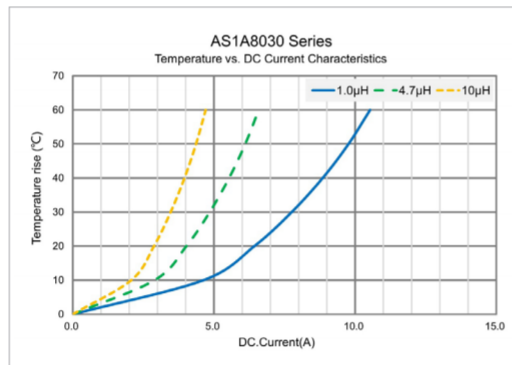
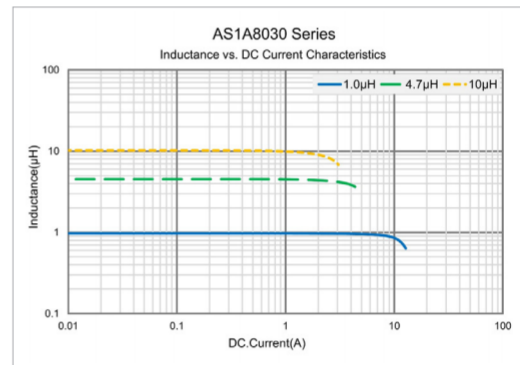
AS1A6045 Series



AS1A757254 Series



AS1A8030 Series



AS1A8040 Series

