

SMD POWER INDUCTORS / ATNR MA Type Series

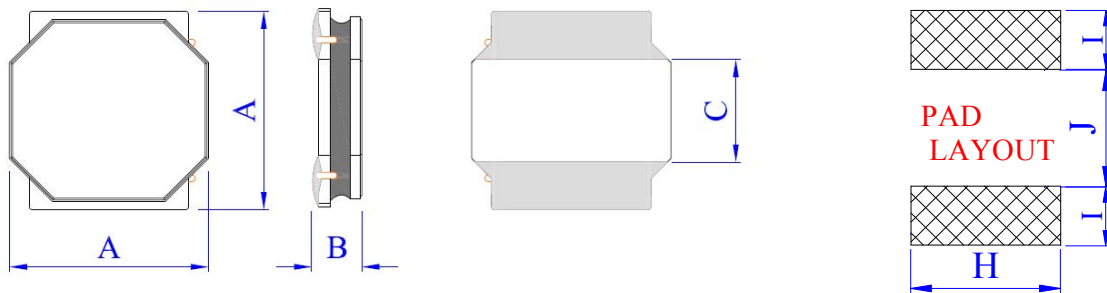
● Features

1. Small and Low profile inductor.
2. It corresponds to High current.
3. Simple and original magnetic shield structure.
4. Durable structure against dropping impact.
5. Applicable at high frequency up to 1MHz RoHS Compliant.

● Applications

1. LCD displays
2. STB
3. LCD Monitor / TV
4. Smart meter
5. Tablet PC and other Portable devices
6. DC/DC converters

● Shape & Dimensions



TYPE	A (mm)	B (mm)	C (mm)	H (Ref.)	I (Ref.)	J (Ref.)
ATNR3010MA	3.0±0.2	1.05 MAX.	1.0 REF.	2.7	0.8	1.4
ATNR3015MA	3.0±0.2	1.5 MAX.	1.0 REF.	2.7	0.8	1.4
ATNR4012MA	4.0±0.2	1.2+0.1/-0.15	1.4 REF.	3.7	1.2	1.6
ATNR4018MA	4.0±0.2	1.8±0.2	1.4 REF.	3.7	1.2	1.6
ATNR5020MA	5.0±0.2	2.0±0.2	2.0 REF.	4.7	1.4	2.4
ATNR5040MA	5.0±0.2	4.0±0.2	2.0 REF.	4.7	1.4	2.4
ATNR6020MA	6.0±0.2	2.0±0.2	2.7 REF.	5.7	1.6	3.1



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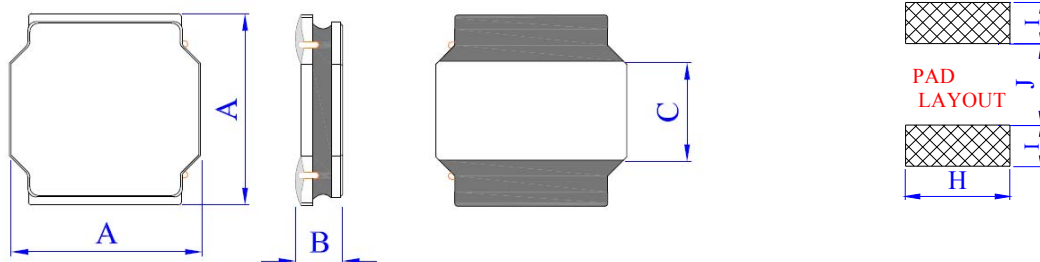
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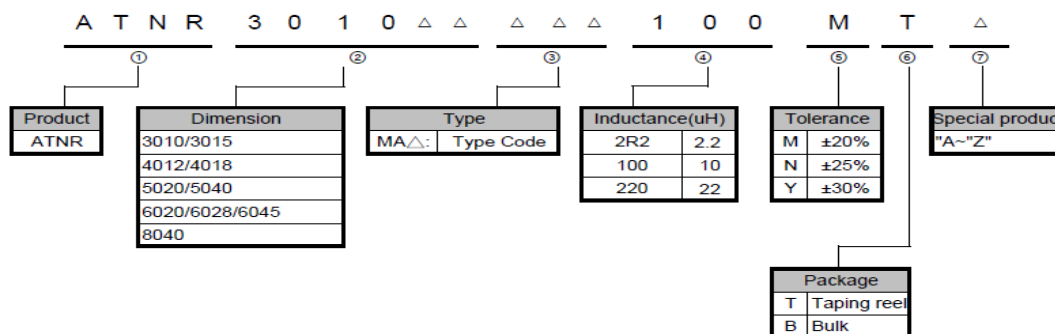
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TYPE	A (mm)	B (mm)	C (mm)	H (Ref.)	I (Ref.)	J (Ref.)
ATNR6028MA	6.0 ± 0.2	2.8 ± 0.2	2.7 REF.	5.7	1.6	3.1
ATNR6045MA	6.0 ± 0.2	4.5+0.2/-0.3	2.7 REF.	5.7	1.6	3.1
ATNR8040MA	8.0 ± 0.2	4.0+0.2/-0.3	3.1 ± 0.3	7.7	2.3	3.8

■ PRODUCT IDENTIFICATION



◆ ATNR3010MA Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (Hz)	DCR (m Ω) $\pm$ 30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR3010MA1R5□T	1.5	Y	1M	85	1.62	1.53
ATNR3010MA2R2□T	2.2	Y	1M	100	1.35	1.26
ATNR3010MA3R3□T	3.3	Y	1M	165	1.08	0.99
ATNR3010MA4R7□T	4.7	Y	1M	205	0.90	0.85
ATNR3010MA6R8□T	6.8	M,N	1M	310	0.78	0.76
ATNR3010MA100□T	10	M,N	1M	430	0.57	0.56
ATNR3010MA150□T	15	M,N	1M	625	0.50	0.49
ATNR3010MA220□T	22	M,N	1M	1095	0.42	0.41

NOTE :

* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

* □ Tolerance M : $\pm$ 20% , N : $\pm$ 25% , Y : $\pm$ 30%

*Isat:For Inductance drop 30% from its value without current.

*Irms:The value of D.C current when the temperature rise is $\Delta T \leq 40^\circ\text{C}$.(Ta=25°C)

◆ ATNR3015MA Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (Hz)	DCR (m Ω) $\pm$ 30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR3015MAR47□T	0.47	Y	1M	36	4.23	3.60
ATNR3015MA1R0□T	1.0	Y	1M	54	3.06	2.70
ATNR3015MA1R5□T	1.5	Y	1M	63	2.70	2.34
ATNR3015MA2R2□T	2.2	Y	1M	90	2.07	1.80
ATNR3015MA3R3□T	3.3	Y	1M	125	1.71	1.62
ATNR3015MA4R7□T	4.7	Y	1M	170	1.42	1.36
ATNR3015MA6R8□T	6.8	M,N	1M	235	1.20	1.17
ATNR3015MA100□T	10	M,N	1M	360	0.95	0.90
ATNR3015MA150□T	15	M,N	1M	550	0.81	0.72
ATNR3015MA220□T	22	M,N	1M	770	0.68	0.58

NOTE :

* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

* □ Tolerance M : $\pm$ 20% , N : $\pm$ 25% , Y : $\pm$ 30%

*Isat:For Inductance drop 30% from its value without current.

*Irms:The value of D.C current when the temperature rise is $\Delta T \leq 40^\circ\text{C}$.(Ta=25°C)

◆ ATNR4012MA Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (Hz)	DCR (m Ω) $\pm$ 30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR4012MA1R0□T	1.0	Y	1M	40.0	2.61	2.70
ATNR4012MA1R5□T	1.5	Y	1M	51.0	2.07	2.25
ATNR4012MA2R2□T	2.2	Y	1M	68.0	1.71	2.07
ATNR4012MA3R3□T	3.3	Y	1M	75.0	1.36	1.89
ATNR4012MA4R7□T	4.7	Y	1M	110.0	1.18	1.62
ATNR4012MA6R8□T	6.8	M,N	1M	165.0	0.97	1.35
ATNR4012MA100□T	10	M,N	1M	225.0	0.81	1.08

NOTE :

* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

* □ Tolerance M : $\pm$ 20% , N : $\pm$ 25% , Y : $\pm$ 30%

* Isat: For Inductance drop 30% from its value without current.

* Irms: The value of D.C current when the temperature rise is $\Delta T \leq 40^\circ\text{C}$.(Ta=25°C)

◆ ATNR4018MA Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (Hz)	DCR (m Ω) $\pm$ 30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR4018MA1R0□T	1.0	Y	1M	26.5	3.78	3.42
ATNR4018MA1R5□T	1.5	Y	1M	37.0	3.15	2.88
ATNR4018MA2R2□T	2.2	Y	1M	47.0	2.70	2.43
ATNR4018MA3R3□T	3.3	Y	1M	62.5	2.07	1.89
ATNR4018MA4R7□T	4.7	Y	1M	80.0	1.80	1.62
ATNR4018MA6R8□T	6.8	M,N	1M	115.0	1.35	1.21
ATNR4018MA100□T	10	M,N	1M	185.0	1.26	1.08

NOTE :

* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

* □ Tolerance M : $\pm$ 20% , N : $\pm$ 25% , Y : $\pm$ 30%

* Isat: For Inductance drop 30% from its value without current.

* Irms: The value of D.C current when the temperature rise is $\Delta T \leq 40^\circ\text{C}$.(Ta=25°C)

◆ ATNR5020MA Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (Hz)	DCR (m Ω) $\pm$ 30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR5020MA1R0□T	1.0	Y	1M	18.0	5.40	3.69
ATNR5020MA1R5□T	1.5	Y	1M	23.0	4.41	3.15
ATNR5020MA2R2□T	2.2	Y	1M	30.0	3.60	2.97
ATNR5020MA3R3□T	3.3	Y	1M	50.0	2.70	2.50
ATNR5020MA4R7□T	4.7	Y	1M	60.0	2.43	1.98
ATNR5020MA6R8□T	6.8	M,N	1M	93.0	1.98	1.62
ATNR5020MA100□T	10	M,N	1M	125.0	1.62	1.44
ATNR5020MA150□T	15	M,N	1M	195.0	1.26	1.08
ATNR5020MA220□T	22	M,N	1M	265.0	1.08	0.90

NOTE :

* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

* □ Tolerance M : $\pm$ 20% , N : $\pm$ 25% , Y : $\pm$ 30%

*Isat:For Inductance drop 30% from its value without current.

*Irms:The value of D.C current when the temperature rise is $\Delta T \leq 40^\circ\text{C}$.(Ta=25°C)

◆ ATNR5040MA Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (Hz)	DCR (m Ω) $\pm$ 30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR5040MA1R0□T	1.0	Y	1M	12.0	7.92	5.31
ATNR5040MA1R5□T	1.5	Y	1M	14.0	7.11	4.86
ATNR5040MA2R2□T	2.2	Y	1M	20.0	6.12	4.05
ATNR5040MA3R3□T	3.3	Y	1M	26.0	4.77	3.78
ATNR5040MA4R7□T	4.7	Y	1M	32.0	3.96	2.88
ATNR5040MA6R8□T	6.8	M,N	1M	50.0	3.42	2.70
ATNR5040MA100□T	10	M,N	1M	70.0	2.70	2.07
ATNR5040MA150□T	15	M,N	1M	115.0	2.16	1.62
ATNR5040MA220□T	22	M,N	1M	160.0	1.80	1.44

NOTE :

* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

* □ Tolerance M : $\pm$ 20% , N : $\pm$ 25% , Y : $\pm$ 30%

*Isat:For Inductance drop 30% from its value without current.

*Irms:The value of D.C current when the temperature rise is $\Delta T \leq 40^\circ\text{C}$.(Ta=25°C)

◆ ATNR6020MA Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (Hz)	DCR (m Ω) $\pm$ 30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR6020MA1R0□T	1.0	Y	1M	19	5.76	3.78
ATNR6020MA1R5□T	1.5	Y	1M	26	4.86	3.33
ATNR6020MA2R2□T	2.2	Y	1M	34	4.05	2.97
ATNR6020MA3R3□T	3.3	Y	1M	45	3.24	2.52
ATNR6020MA4R7□T	4.7	Y	1M	58	2.70	2.07
ATNR6020MA6R8□T	6.8	M,N	1M	85	2.34	1.71
ATNR6020MA100□T	10	M,N	1M	130	1.89	1.44
ATNR6020MA150□T	15	M,N	1M	195	1.44	1.17
ATNR6020MA220□T	22	M,N	1M	260	1.17	0.99

NOTE :

* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

* □ Tolerance M : $\pm$ 20% , N : $\pm$ 25% , Y : $\pm$ 30%

* Isat: For Inductance drop 30% from its value without current.

* Irms: The value of D.C current when the temperature rise is $\Delta T \leq 40^\circ\text{C}$.(Ta=25°C)

◆ ATNR6028MA Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (Hz)	DCR (m Ω) $\pm$ 30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR6028MA1R0□T	1.0	Y	1M	12.0	7.11	5.67
ATNR6028MA1R5□T	1.5	Y	1M	15.0	6.30	4.95
ATNR6028MA2R2□T	2.2	Y	1M	20.0	5.40	4.50
ATNR6028MA3R3□T	3.3	Y	1M	27.0	4.05	3.60
ATNR6028MA4R7□T	4.7	Y	1M	36.0	3.60	3.06
ATNR6028MA6R8□T	6.8	M,N	1M	48.0	2.88	2.70
ATNR6028MA100□T	10	M,N	1M	65.0	2.34	2.25
ATNR6028MA150□T	15	M,N	1M	93.0	1.89	1.80
ATNR6028MA220□T	22	M,N	1M	135.0	1.53	1.48

NOTE :

* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

* □ Tolerance M : $\pm$ 20% , N : $\pm$ 25% , Y : $\pm$ 30%

* Isat: For Inductance drop 30% from its value without current.

* Irms: The value of D.C current when the temperature rise is $\Delta T \leq 40^\circ\text{C}$.(Ta=25°C)

◆ ATNR6045MA Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (Hz)	DCR (m Ω) $\pm$ 30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR6045MA1R5□T	1.5	Y	1M	12.0	10.80	5.94
ATNR6045MA2R2□T	2.2	Y	1M	18.0	8.55	4.68
ATNR6045MA3R3□T	3.3	Y	1M	22.0	7.02	3.96
ATNR6045MA4R7□T	4.7	Y	1M	30.0	6.12	3.60
ATNR6045MA6R8□T	6.8	M,N	1M	42.0	5.13	2.97
ATNR6045MA100□T	10	M,N	1M	60.0	4.14	2.34
ATNR6045MA150□T	15	M,N	1M	90.0	3.42	1.98
ATNR6045MA220□T	22	M,N	1M	130.0	2.97	1.71

NOTE :

* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

* □ Tolerance M : $\pm$ 20% , N : $\pm$ 25% , Y : $\pm$ 30%

* Isat: For Inductance drop 30% from its value without current.

* Irms: The value of D.C current when the temperature rise is $\Delta T \leq 40^\circ\text{C}$. (Ta=25°C)

◆ ATNR8040MA Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (Hz)	DCR (m Ω) $\pm$ 30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR8040MA1R0□T	1.0	Y	1M	7.5	12.15	7.29
ATNR8040MA1R5□T	1.5	Y	1M	9.7	9.45	6.93
ATNR8040MA2R2□T	2.2	Y	1M	12.0	8.73	6.48
ATNR8040MA3R3□T	3.3	Y	1M	17.0	7.20	5.31
ATNR8040MA4R7□T	4.7	Y	1M	20.0	6.12	4.95
ATNR8040MA6R8□T	6.8	M,N	1M	29.0	5.22	4.41
ATNR8040MA100□T	10	M,N	1M	38.0	4.50	3.42
ATNR8040MA150□T	15	M,N	1M	57.0	3.60	2.88
ATNR8040MA220□T	22	M,N	1M	82.0	3.06	2.43

NOTE :

* The operating temperature range is -40°C to +125°C (Including self-temperature rise)

* □ Tolerance M : $\pm$ 20% , N : $\pm$ 25% , Y : $\pm$ 30%

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