

SMD Power Inductors / ATNR Series

Features

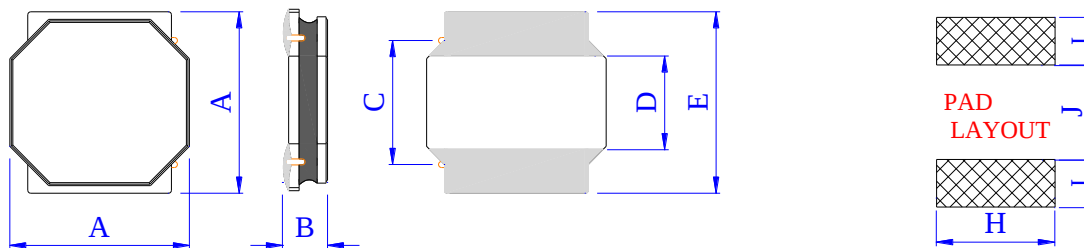
- Small and Low profile inductor.
- It corresponds to High current.
- Simple and original magnetic shield structure.
- Durable structure against dropping impact.

Applications

- LCD displays.
- STB.
- LCD Monitor / TV.
- Smart meter.
- Tablet PC and other Portable devices.
- DC/DC converters.



● Shape & Dimensions



TYPE	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	H (Ref.)	I (Ref.)	J (Ref.)
ATNR3010	3.0±0.2	0.9±0.1	2.0±0.2	1.0±0.2	3.0±0.2	2.7	0.8	1.4
ATNR4010	4.0±0.2	0.9±0.1	2.7±0.2	1.4±0.2	4.0±0.2	3.7	1.2	1.6
ATNR4018	4.0±0.2	1.8 MAX.	2.7±0.2	1.4±0.2	4.0±0.2	3.7	1.2	1.6
ATNR5012	5.0±0.2	1.1±0.1	3.5±0.2	2.0±0.2	5.0±0.2	4.7	1.4	2.4
ATNR6012	6.0±0.2	1.1±0.1	4.325±0.2	2.65±0.2	6.0±0.2	5.7	1.6	3.1
ATNR6020	6.0±0.2	2.0 MAX.	4.325±0.2	2.65±0.2	6.0±0.2	5.7	1.6	3.1

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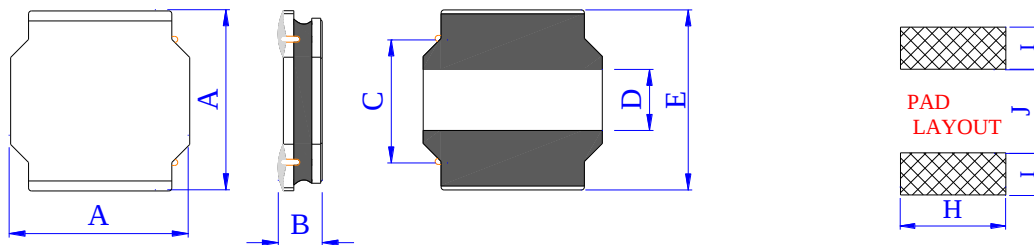
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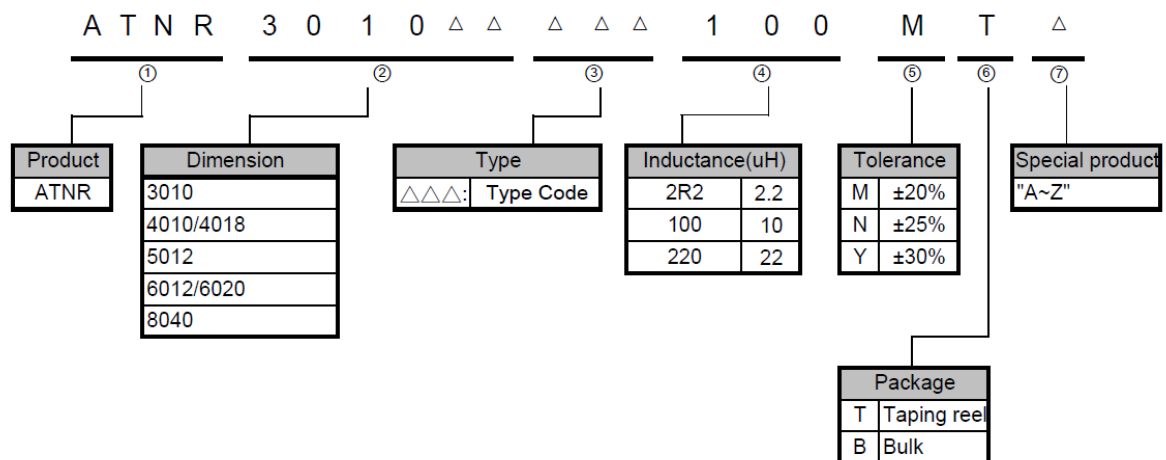


TYPE	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	H (Ref.)	I (Ref.)	J (Ref.)
ATNR8040	8.0 ± 0.2	*1 4.2 MAX.	5.6±0.3	3.1±0.3	8.0±0.2	7.7	1.8	3.8
ATNR8040	8.0 ± 0.2	*2 4.0 MAX.	5.6±0.3	3.1±0.3	8.0±0.2	7.7	1.8	3.8

*1) 1R5~6R8=4.2 MAX.

*2) 100~220 =4.0 MAX.

PRODUCT IDENTIFICATION



SMD Power Inductor / ATNR Series

Features

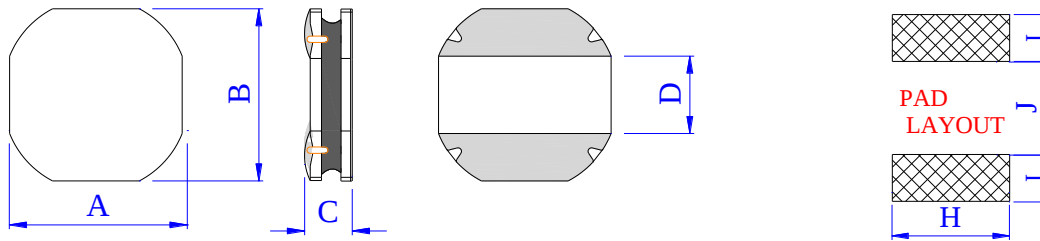
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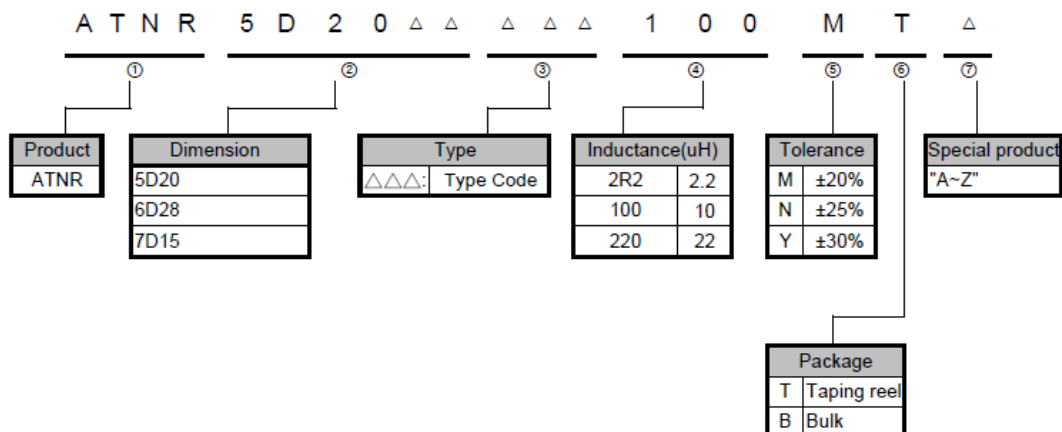


Shape & Dimensions



TYPE	A (mm)	B (mm)	C (mm)	D (mm)	H (Ref.)	I (Ref.)	J (Ref.)
ATNR5D20	5.0 ± 0.2	4.8 ± 0.2	2.0 MAX.	2.0 REF.	4.7	1.4	2.4
ATNR6D28	6.0 ± 0.2	5.9 ± 0.2	2.8 MAX.	2.8 TYP.	5.7	1.6	2.8
ATNR7D15	6.5 ± 0.2	7.0 ± 0.2	1.55 MAX.	2.8±0.3	6.7	1.75	3.8

PRODUCT IDENTIFICATION



◆ATNR3010 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR30102R2□T	2.2	Y	100	160	1.3	1.3
ATNR30103R3□T	3.3	Y	100	220	1.2	1.0
ATNR30104R7□T	4.7	Y	100	360	1.1	0.9
ATNR30106R8□T	6.8	M,N	100	450	0.9	0.8
ATNR30108R2□T	8.2	M,N	100	490	0.7	0.7
ATNR3010100□T	10	M,N	100	590	0.6	0.62

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (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 $\Delta T \leq 40^{\circ}\text{C}$ ($T_a = 25^{\circ}\text{C}$).

◆ATNR4010 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR40102R2□T	2.2	Y	100	143	1.6	1.4
ATNR40103R3□T	3.3	Y	100	197	1.4	1.35
ATNR40104R7□T	4.7	Y	100	270	1.3	1.3
ATNR40106R8□T	6.8	M,N	100	360	1.0	1.0
ATNR40108R2□T	8.2	M,N	100	396	0.9	0.9
ATNR4010100□T	10	M,N	100	480	0.8	0.8

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (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 $\Delta T \leq 40^{\circ}\text{C}$ ($T_a = 25^{\circ}\text{C}$).

◆ ATNR4018 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR40182R2□T	2.2	Y	100	90	2.8	2.3
ATNR40183R3□T	3.3	Y	100	110	2.6	2.2
ATNR40184R7□T	4.7	Y	100	150	2.2	1.7
ATNR40186R8□T	6.8	M,N	100	220	1.8	1.4
ATNR4018100□T	10	M,N	100	345	1.4	0.9

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (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 $\Delta T \leq 40^{\circ}\text{C}$ ($T_a = 25^{\circ}\text{C}$).

◆ ATNR5012 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR50122R2□T	2.2	Y	100	105	2.6	2.2
ATNR50123R3□T	3.3	Y	100	155	2.1	1.9
ATNR50124R7□T	4.7	Y	100	195	1.6	1.5
ATNR50126R8□T	6.8	M,N	100	295	1.4	1.2
ATNR5012100□T	10	M,N	100	410	1.1	1.0

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (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 $\Delta T \leq 40^{\circ}\text{C}$ ($T_a = 25^{\circ}\text{C}$).

◆ ATNR6012 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR60122R2□T	2.2	Y	100	120	2.60	2.10
ATNR60123R3□T	3.3	Y	100	175	2.15	1.70
ATNR60124R7□T	4.7	Y	100	220	1.85	1.50
ATNR60125R3□T	5.3	M,N	100	240	1.70	1.60
ATNR60126R8□T	6.8	M,N	100	280	1.60	1.20
ATNR60128R2□T	8.2	M,N	100	320	1.45	1.15
ATNR6012100□TB	10	M,N	100	430	1.40	1.10

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (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 $\Delta T \leq 40^{\circ}\text{C}$ ($T_a = 25^{\circ}\text{C}$).

◆ ATNR6020 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR60202R2□T	2.2	Y	100	55	4.0	2.9
ATNR60203R3□T	3.3	Y	100	75	3.2	2.5
ATNR60204R7□T	4.7	Y	100	90	2.8	2.4
ATNR60206R8□T	6.8	M,N	100	115	2.4	2.1
ATNR6020100□T	10	M,N	100	175	1.9	1.6

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (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 $\Delta T \leq 40^{\circ}\text{C}$ ($T_a = 25^{\circ}\text{C}$).

◆ ATNR8040 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR80401R5□TA	1.5	Y	100	15	9.0	8.0
ATNR80402R2□TA	2.2	Y	100	18	7.5	7.0
ATNR80403R3□TA	3.3	Y	100	20	6.5	6.0
ATNR80404R7□T	4.7	Y	100	31	5.5	4.1
ATNR80406R8□TA	6.8	M,N	100	35	5.0	5.0
ATNR8040100□T	10	M,N	100	54	4.0	3.0
ATNR8040150□T	15	M,N	100	85	2.5	2.4
ATNR8040220□T	22	M,N	100	104	2.6	2.0

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (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 $\Delta T \leq 40^{\circ}\text{C}$ ($T_a = 25^{\circ}\text{C}$).

◆ ATNR5D20 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR5D201R0□T	1.0	Y	100	43	5.5	4.0
ATNR5D202R2□T	2.2	Y	100	130	3.2	2.15
ATNR5D203R3□T	3.3	Y	100	150	3.0	2.1
ATNR5D204R7□T	4.7	Y	100	176	2.5	1.9
ATNR5D206R8□T	6.8	M,N	100	235	2.2	1.7
ATNR5D20100□T	10	M,N	100	352	1.8	1.3
ATNR5D20150□T	15	M,N	100	492	1.4	1.0
ATNR5D20220□T	22	M,N	100	800	1.1	0.8

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (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 $\Delta T \leq 40^{\circ}\text{C}$ ($T_a = 25^{\circ}\text{C}$).

◆ ATNR6D28 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (KHz)	DCR ($m\Omega$) Max	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR6D282R2□T	2.2	Y	100	62	8.00	3.00
ATNR6D283R3□T	3.3	Y	100	78	6.36	2.70
ATNR6D284R7□T	4.7	Y	100	115	5.00	2.30
ATNR6D286R8□T	6.8	M,N	100	150	4.33	1.95
ATNR6D28100□T	10	M,N	100	210	3.49	1.65
ATNR6D28150□T	15	M,N	100	360	3.30	1.30
ATNR6D28220□T	22	M,N	100	450	2.90	1.20

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (Including self-temperature rise).

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

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

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

◆ ATNR7D15 Series Specification :

Part Number	Inductance (μ H)	Inductance Tolerance	Test Freq. (Hz)	DCR ($m\Omega$) Max	Saturation Current (A) Max.	Temp. Rise current (A) Max.
ATNR7D151R0□T	1.0	Y	1M	35	3.50	3.00
ATNR7D152R2□T	2.2	Y	1M	55	3.20	2.60
ATNR7D153R3□T	3.3	Y	1M	65	2.80	2.10
ATNR7D154R7□T	4.7	Y	1M	75	2.30	2.00
ATNR7D156R8□T	6.8	M,N	1M	106	2.10	1.60
ATNR7D15100□T	10	M,N	1M	150	1.50	1.40
ATNR7D15150□T	15	M,N	1M	205	1.10	1.10
ATNR7D15220□T	22	M,N	1M	320	0.90	0.90

NOTE :

* The operating temperature range is -40°C to $+125^{\circ}\text{C}$ (Including self-temperature rise).

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

*Isat:For Inductance drop 35% from its value without current.

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