ARLITECH ELECTRONIC CORP.
TEL:886-2-2999-8313
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SMD POWER INDUCTORS / VTNR MA Type Series

For Automotive Electronics

● 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.

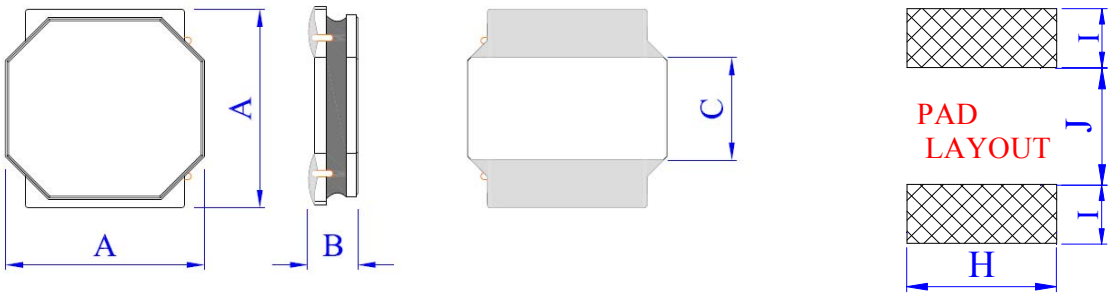
AEC-Q200 qualified

● Applications

Engine and transmission control units
Diesel injection drivers
DC/DC converters for entertainment/navigation systems
Noise suppression for motors
- Windshield wipers
- Power seats
- Power mirrors
- Heating and ventilation blowers
- HID lighting

LED drivers

● Shape & Dimensions



TYPE	A (mm)	B (mm)	C (mm)	H (Ref.)	I (Ref.)	J (Ref.)
VTNR3015MA	3.0±0.2	1.5 MAX.	1.0 REF.	2.7	0.8	1.4
VTNR4018MA	4.0±0.2	1.8±0.2	1.4 REF.	3.7	1.2	1.6
VTNR5020MA	5.0±0.2	2.0±0.2	2.0 REF.	4.7	1.4	2.4

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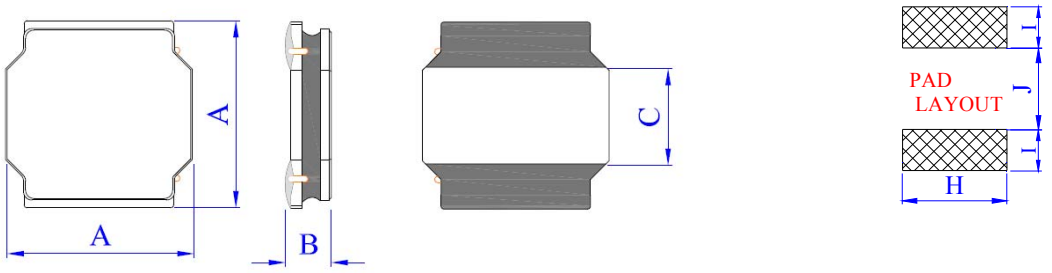

TYPE	A (mm)	B (mm)	C (mm)	H (Ref.)	I (Ref.)	J (Ref.)
VTNR6045MA	6.0 ± 0.2	4.5+0.2/-0.3	2.7 REF.	5.7	1.6	3.1
VTNR8040MA	8.0 ± 0.2	4.0+0.2/-0.3	3.1 ± 0.3	7.7	2.3	3.8

■ PRODUCT IDENTIFICATION

V T N R 3 0 1 5 △ △ △ △ △ 1 0 0 M T △

① Product: VTNR

② Dimension: 3015, 4018, 5020, 6045, 8040

③ Type: MA△: Type Code

④ Inductance(uH): 2R2 = 2.2, 100 = 10, 220 = 22

⑤ Tolerance: M ±20%, N ±25%, Y ±30%

⑥ Package: T Taping reel, B Bulk

⑦ Special produc: "A~"Z"

◆ VTNR3015MA Series Specification：

Part Number	Inductance (uH)	Inductance Tolerance	Test Freq. (Hz)	DCR (mΩ)±30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
VTNR3015MAR47□T	0.47	Y	1M	36	4.23	3.60
VTNR3015MA1R0□T	1.0	Y	1M	54	3.06	2.70
VTNR3015MA1R5□T	1.5	Y	1M	63	2.70	2.34
VTNR3015MA2R2□T	2.2	Y	1M	90	2.07	1.80
VTNR3015MA3R3□T	3.3	Y	1M	125	1.71	1.62
VTNR3015MA4R7□T	4.7	Y	1M	170	1.42	1.36
VTNR3015MA6R8□T	6.8	M,N	1M	235	1.20	1.17
VTNR3015MA100□T	10	M,N	1M	360	0.95	0.90
VTNR3015MA150□T	15	M,N	1M	550	0.81	0.72
VTNR3015MA220□T	22	M,N	1M	770	0.68	0.58

NOTE：

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

* □ Tolerance M：±20%，N：±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 △T≦40℃.(Ta=25℃)

◆ VTNR4018MA Series Specification：

Part Number	Inductance (uH)	Inductance Tolerance	Test Freq. (Hz)	DCR (mΩ)±30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
VTNR4018MA1R0□T	1.0	Y	1M	26.5	3.78	3.42
VTNR4018MA1R5□T	1.5	Y	1M	37.0	3.15	2.88
VTNR4018MA2R2□T	2.2	Y	1M	47.0	2.70	2.43
VTNR4018MA3R3□T	3.3	Y	1M	62.5	2.07	1.89
VTNR4018MA4R7□T	4.7	Y	1M	80.0	1.80	1.62
VTNR4018MA6R8□T	6.8	M,N	1M	115.0	1.35	1.21
VTNR4018MA100□T	10	M,N	1M	185.0	1.26	1.08

NOTE：

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

* □ Tolerance M：±20%，N：±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 △T≦40℃.(Ta=25℃)

◆ VTNR5020MA Series Specification：

Part Number	Inductance (uH)	Inductance Tolerance	Test Freq. (Hz)	DCR (mΩ)±30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
VTNR5020MA1R0□T	1.0	Y	1M	18.0	5.40	3.69
VTNR5020MA1R5□T	1.5	Y	1M	23.0	4.41	3.15
VTNR5020MA2R2□T	2.2	Y	1M	30.0	3.60	2.97
VTNR5020MA3R3□T	3.3	Y	1M	50.0	2.70	2.50
VTNR5020MA4R7□T	4.7	Y	1M	60.0	2.43	1.98
VTNR5020MA6R8□T	6.8	M,N	1M	93.0	1.98	1.62
VTNR5020MA100□T	10	M,N	1M	125.0	1.62	1.44
VTNR5020MA150□T	15	M,N	1M	195.0	1.26	1.08
VTNR5020MA220□T	22	M,N	1M	265.0	1.08	0.90

NOTE：

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

* □ Tolerance M：±20%，N：±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 △T≦40℃.(Ta=25℃)

◆ VTNR6045MA Series Specification：

Part Number	Inductance (uH)	Inductance Tolerance	Test Freq. (Hz)	DCR (mΩ)±30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
VTNR6045MA1R5□T	1.5	Y	1M	12.0	10.80	5.94
VTNR6045MA2R2□T	2.2	Y	1M	18.0	8.55	4.68
VTNR6045MA3R3□T	3.3	Y	1M	22.0	7.02	3.96
VTNR6045MA4R7□T	4.7	Y	1M	30.0	6.12	3.60
VTNR6045MA6R8□T	6.8	M,N	1M	42.0	5.13	2.97
VTNR6045MA100□T	10	M,N	1M	60.0	4.14	2.34
VTNR6045MA150□T	15	M,N	1M	90.0	3.42	1.98
VTNR6045MA220□T	22	M,N	1M	130.0	2.97	1.71

NOTE：

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

* □ Tolerance M：±20%，N：±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 △T≦40℃.(Ta=25℃)

◆ VTNR8040MA Series Specification：

Part Number	Inductance (uH)	Inductance Tolerance	Test Freq. (Hz)	DCR (mΩ)±30%	Saturation Current (A) Max.	Temp. Rise current (A) Max.
VTNR8040MA1R0□T	1.0	Y	1M	7.5	12.15	7.29
VTNR8040MA1R5□T	1.5	Y	1M	9.7	9.45	6.93
VTNR8040MA2R2□T	2.2	Y	1M	12.0	8.73	6.48
VTNR8040MA3R3□T	3.3	Y	1M	17.0	7.20	5.31
VTNR8040MA4R7□T	4.7	Y	1M	20.0	6.12	4.95
VTNR8040MA6R8□T	6.8	M,N	1M	29.0	5.22	4.41
VTNR8040MA100□T	10	M,N	1M	38.0	4.50	3.42
VTNR8040MA150□T	15	M,N	1M	57.0	3.60	2.88
VTNR8040MA220□T	22	M,N	1M	82.0	3.06	2.43

NOTE：

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

* □ Tolerance M：±20%，N：±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 △T≦40℃.(Ta=25℃)