

**TNR Series ( Rev. 5.0 )**



**Features**

- \* RoHS compliant
- \* Highly accurate dimensions
- \* Terminals are highly resistant to external forces
- \* Highly reliable in environments of sudden temperature change and humidity
- \* Superior EMI characteristics with ultra low radiation

**Product Identification**

TNR                      252012                      -                      100                      M                      H  
 1                                      2                                      3                                      4                                      5

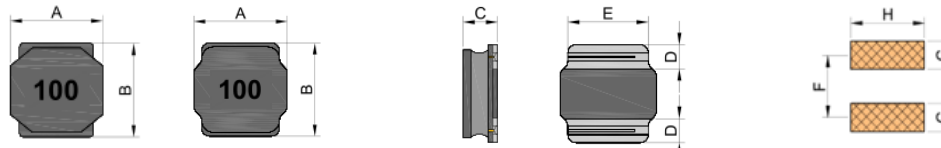
1. Product Code
2. Size Code
3. Inductance: 10uH
4. Tolerance: M=±20%, N=±30%    5. M/H/L: Medium/High current/Lower DCR

**Dimensions & Recommended PAD Layout: [ mm ]**

TNR201610/252010/252012



TNR3010/3012/3015/4012/4018/4020/4030/5020/5030/5040/6015/6020/6028/6045/8040/8065/1050



Size Code	A(±0.2)	B(±0.2)	C(max.)	D	E(ref.)	F(ref.)	G(ref.)	H(ref.)
201610	1.6	2.0	1.0	0.6±0.2	1.2	1.3	0.8	1.6
252010	2.0	2.5	1.1	0.8±0.2	1.5	1.7	0.9	2.0
252012	2.0	2.5	1.2±0.2	0.8±0.2	2.0	1.7	0.9	2.0
3010	3.0	3.0	1.0	0.75±0.5	2.5	2.2	0.9	2.7
3012	3.0	3.0	1.2	0.80±0.2	2.5	2.2	0.9	2.7
3015	3.0	3.0	1.5	0.75±0.5	2.5	2.2	1.0	2.7
4012	4.0	4.0	1.3	0.95±0.2	3.3	2.8	1.2	3.7
4018	4.0	4.0	1.8±0.2	0.95±0.2	3.3	2.8	1.2	3.7
4020	4.0	4.0	2.1	0.95±0.2	3.3	2.8	1.2	3.7
4030	4.0	4.0	3.0	0.95±0.2	3.3	2.8	1.2	3.7
5020	5.0	5.0	2.0	1.30±0.2	4.0	3.8	1.4	4.2
5030	5.0	5.0	3.0	1.25±0.2	4.0	3.8	1.4	4.2
5040	5.0	5.0	4.0	1.25±0.2	4.0	3.8	1.4	4.2
6015	6.0±0.3	6.0±0.3	1.5±0.3	1.55±0.3	5.0	4.6	1.7	5.7
6020	6.0±0.3	6.0±0.3	2.2	1.7±0.3	5.0	4.6	1.7	5.7
6028	6.0±0.3	6.0±0.3	2.8	1.7±0.3	5.0	4.6	1.7	5.7
6045	6.0±0.3	6.0±0.3	4.5	1.7±0.3	5.0	4.6	1.7	5.7
8040	8.0±0.3	8.0±0.3	4.0±0.2	2.2±0.3	6.5	6.0	2.2	7.5
8065	8.0±0.3	8.0±0.3	6.5	2.1±0.3	6.5	6.0	2.2	7.5
1050	10.0±0.3	10.0±0.3	5.0	1.7±0.2	5.0	9.3	1.8	5.5

An automatic assembly constructed power inductor, shielded with magnetic resin and suitable for portable DC-DC converter applications.

**Applications**

- \* LCD TV/ DSC/ Touch panel/ Monitor
- \* Ap router/ STB and smart phone
- \* Game console and other electronic devices

**Operating & Storage Condition**

- \* Operating Temp.: -40 to +105 °C
- \* Storage Temp.: -25 to +125 °C
- \* Storage Life Time : 6 months @20 °C, RH65%

**Test Equipment**

- \* L: WK3260 LCR \* RDC : Twintex TM8089A
- \* IDC: WK3260+3265B DC-Bias
- \* Temperature: TECPEL \* Dimension: Mitutoyo

**Standard Atmospheric Conditions**

- \* Ambient Temp : 25+/-5 °C
- \* Relative Humidity : 65+/-20%

## TNR Series ( Rev. 5.0 )

## Electrical Characteristics

P/N	L (uH)	Test Freq. (KHz/1.0V)	Tolerance ( ± % )	DCR ( mΩ ) ±30%	Isat (mA) max.	Irms (mA) typ.
TNR201610-R24M	0.24	1000	20	33.0	3700	2800
TNR201610-R33M	0.33	1000	20	41.0	3000	2400
TNR201610-R47M	0.47	1000	20	50.0	2300	2300
TNR201610-R68M	0.68	1000	20	63.0	1950	2000
TNR201610-1R0M	1.00	1000	20	96.0	1650	1450
TNR201610-2R2M	2.20	1000	20	215.0	1200	1050
TNR201610-3R3M	3.30	1000	20	345.0	1000	850
TNR201610-4R7M	4.70	1000	20	400.0	750	700
TNR201610-R24MH	0.24	1000	20	40.0 max.	4500	3000
TNR201610-R33MH	0.33	1000	20	49.0 max.	4400	2700
TNR201610-R47MH	0.47	1000	20	49.0 max.	4060	2700
TNR201610-R56MH	0.56	1000	20	53.0 max.	3800	2600
TNR201610-R68MH	0.68	1000	20	65.0 max.	3500	2500
TNR201610-1R0MH	1.00	1000	20	95.0 max.	3300	2000
TNR201610-1R5MH	1.50	1000	20	130.0 max.	1950	1700
TNR201610-2R2MH	2.20	1000	20	180.0 max.	1900	1400
TNR201610-3R3MH	3.30	1000	20	307.0 max.	1400	1100
TNR201610-4R7MH	4.70	1000	20	425.0 max.	1100	900
TNR201610-100MH	10.00	1000	20	875.0 max.	800	600
TNR252010-R24MH	0.24	1000	20	33.0 max.	6100	3700
TNR252010-R33MH	0.33	1000	20	39.0 max.	4800	3500
TNR252010-R47MH	0.47	1000	20	45.0 max.	4400	3200
TNR252010-R68MH	0.68	1000	20	59.0 max.	3200	2750
TNR252010-1R0MH	1.00	1000	20	85.0 max.	3100	2500
TNR252010-1R5MH	1.50	1000	20	106.0 max.	2600	2000
TNR252010-2R2MH	2.20	1000	20	155.0 max.	1900	1500
TNR252010-3R3MH	3.30	1000	20	235.0 max.	1600	1200
TNR252010-4R7MH	4.70	1000	20	290.0 max.	1300	1000
TNR252010-R47N	0.47	100	30	47.0	2500	2350
TNR252010-R68N	0.68	100	30	62.0	2200	2000
TNR252010-1R0N	1.00	100	30	90.0	1850	1650
TNR252010-1R5N	1.50	100	30	152.0	1800	1300
TNR252010-2R2N	2.20	100	30	174.0	1200	1200
TNR252010-3R3M	3.30	100	20	273.0	1050	900
TNR252010-4R7M	4.70	100	20	469.0	950	700
TNR252010-6R8M	6.80	100	20	747.0	780	590
TNR252010-100M	10.0	100	20	910.0	650	500
TNR252010-R22ML	0.22	1000	20	26.0	3600	3000
TNR252010-R24ML	0.24	1000	20	26.0	3600	3000
TNR252010-R33ML	0.33	1000	20	33.0	3600	2700
TNR252010-R47ML	0.47	1000	20	33.0	2800	2600
TNR252010-R68ML	0.68	1000	20	51.0	2750	2350

\* Irms: DC current that will cause an approximate  $\Delta T$  of 40°C.

\* Isat : DC current that will cause L to drop approximately 30%.



## TNR Series ( Rev. 5.0 )

## Electrical Characteristics

P/N	L (uH)	Test Freq. (KHz/1.0V)	Tolerance ( ±% )	DCR ( mΩ) ±30%	Isat (mA) max.	Irms (mA) typ.
TNR252010-1R0ML	1.00	1000	20	66.0	2050	2050
TNR252010-1R5ML	1.50	1000	20	85.0	1700	1700
TNR252010-2R2ML	2.20	1000	20	130.0	1500	1500
TNR252010-3R3ML	3.30	1000	20	170.0	1100	1200
TNR252010-4R7ML	4.70	1000	20	280.0	1000	1000
TNR252010-5R6ML	5.60	1000	20	370.0	900	900
TNR252010-6R8ML	6.80	1000	20	400.0	800	800
TNR252010-8R2ML	8.20	1000	20	463.0	730	780
TNR252010-100ML	10.00	1000	20	500.0	650	740
TNR252010-120ML	12.00	1000	20	700.0	580	620
TNR252010-150ML	15.00	1000	20	820.0	500	500
TNR252012-R24MH	0.24	1000	20	23.0 max.	6500	4050
TNR252012-R33MH	0.33	1000	20	28.0 max.	5350	3700
TNR252012-R47MH	0.47	1000	20	35.0 max.	4900	3450
TNR252012-R68MH	0.68	1000	20	45.0 max.	3800	3150
TNR252012-1R0MH	1.00	1000	20	54.0 max.	3600	3000
TNR252012-1R5MH	1.50	1000	20	72.0 max.	2900	2400
TNR252012-2R2MH	2.20	1000	20	120.0 max.	2600	1900
TNR252012-3R3MH	3.30	1000	20	163.0 max.	1700	1800
TNR252012-4R7MH	4.70	1000	20	260.0 max.	1600	1250
TNR252012-6R8MH	6.80	1000	20	366.0 max.	1200	950
TNR252012-100MH	10.00	1000	20	480.0 max.	1100	850
TNR252012-R47N	0.47	100	30	42.0	3820	2150
TNR252012-R68N	0.68	100	30	73.0	2700	1730
TNR252012-1R0N	1.00	100	30	85.0	2680	1580
TNR252012-1R2N	1.20	100	30	99.0	2380	1460
TNR252012-1R5M	1.50	100	20	113.0	2240	1400
TNR252012-2R2M	2.20	100	20	165.0	1850	1150
TNR252012-3R3M	3.30	100	20	200.0	1610	1040
TNR252012-4R7M	4.70	100	20	315.0	1180	840
TNR252012-5R6M	5.60	100	20	414.0	1110	730
TNR252012-6R8M	6.80	100	20	447.0	980	690
TNR252012-8R2M	8.20	100	20	506.0	980	650
TNR252012-100M	10.00	100	20	575.0	880	620
TNR252012-120M	12.00	100	20	827.0	780	510
TNR252012-150M	15.00	100	20	900.0	620	400
TNR252012-220M	22.00	100	20	1520.0	530	380
TNR252012-R24ML	0.24	1000	20	19.0	4100	4500
TNR252012-R33ML	0.33	1000	20	26.0	4000	3700
TNR252012-R47ML	0.47	1000	20	31.0	3800	3300
TNR252012-R56ML	0.56	1000	20	38.0	3600	2500
TNR252012-R68ML	0.68	1000	20	38.0	3000	2500

\* Irms: DC current that will cause an approximate  $\Delta T$  of 40°C.

\* Isat : DC current that will cause L to drop approximately 30%.



## TNR Series (Rev. 5.0)

## Electrical Characteristics

P/N	L (uH)	Test Freq. (KHz/1.0V)	Tolerance ( ± % )	DCR ( mΩ) ±30%	Isat (mA) max.	Irms (mA) typ.
TNR252012-1R0ML	1.00	1000	20	50.0	2250	2300
TNR252012-1R2ML	1.20	1000	20	65.0	2200	2200
TNR252012-1R5ML	1.50	1000	20	75.0	2000	2000
TNR252012-1R8ML	1.80	1000	20	93.0	1950	1900
TNR252012-2R2ML	2.20	1000	20	93.0	1750	1900
TNR252012-2R7ML	2.70	1000	20	130.0	1300	1500
TNR252012-3R3ML	3.30	1000	20	130.0	1200	1500
TNR252012-4R7ML	4.70	1000	20	190.0	1100	1200
TNR252012-5R6ML	5.60	1000	20	255.0	1000	1150
TNR252012-6R8ML	6.80	1000	20	300.0	900	1050
TNR252012-100ML	10.00	1000	20	435.0	700	860
TNR252012-120ML	12.00	1000	20	600.0	650	780
TNR252012-150ML	15.00	1000	20	700.0	600	600
TNR252012-220ML	22.00	1000	20	1000.0	450	550
TNR3010-1R0N	1.00	100	30	65.0	1400	1450
TNR3010-1R5N	1.50	100	30	80.0	1270	1300
TNR3010-2R2M	2.20	100	20	110.0	1150	1090
TNR3010-3R3M	3.30	100	20	145.0	970	960
TNR3010-4R7M	4.70	100	20	225.0	750	770
TNR3010-6R8M	6.80	100	20	305.0	550	660
TNR3010-100M	10.00	100	20	400.0	550	580
TNR3010-150M	15.00	100	20	610.0	420	470
TNR3010-220M	22.00	100	20	930.0	350	380
TNR3012-R33N	0.33	100	30	21.0	3000	2900
TNR3012-R47N	0.47	100	30	33.0	2200	2200
TNR3012-R82N	0.82	100	30	40.0	2050	2100
TNR3012-1R0N	1.00	100	30	48.0	1900	2000
TNR3012-1R5N	1.50	100	30	55.0	1620	1850
TNR3012-1R8N	1.80	100	30	68.0	1500	1700
TNR3012-2R2M	2.20	100	20	75.0	1200	1550
TNR3012-3R3M	3.30	100	20	100.0	1050	1350
TNR3012-4R7M	4.70	100	20	120.0	900	1250
TNR3012-5R6M	5.60	100	20	160.0	800	1100
TNR3012-6R8M	6.80	100	20	190.0	750	1000
TNR3012-100M	10.00	100	20	265.0	600	890
TNR3012-150M	15.00	100	20	430.0	450	720
TNR3012-220M	22.00	100	20	630.0	420	550
TNR3012-270M	27.00	100	20	800.0	350	450
TNR3012-330M	33.00	100	20	875.0	360	460
TNR3012-470M	47.00	100	20	1450.0	270	350

\* Irms: DC current that will cause an approximate  $\Delta T$  of 40°C.

\* Isat : DC current that will cause L to drop approximately 30%.



## TNR Series ( Rev. 5.0 )

## Electrical Characteristics

P/N	L (uH)	Test Freq. (KHz/1.0V)	Tolerance ( ± % )	DCR ( mΩ ) ±30%	Isat (mA) max.	Irms (mA) typ.
TNR3015-1R0N	1.00	100	30	37.0	2320	2100
TNR3015-1R5N	1.50	100	30	50.0	2000	1700
TNR3015-2R2N	2.20	100	30	60.0	1600	1600
TNR3015-3R3M	3.30	100	20	80.0	1320	1360
TNR3015-4R7M	4.70	100	20	125.0	1100	1090
TNR3015-6R8M	6.80	100	20	200.0	850	850
TNR3015-100M	10.00	100	20	250.0	720	770
TNR3015-150M	15.00	100	20	350.0	660	650
TNR3015-220M	22.00	100	20	460.0	520	570
TNR3015-330M	33.00	100	20	820.0	440	430
TNR3015-470M	47.00	100	20	1250.0	350	350
TNR3015-R47NM	0.47	100	30	36.0	4230	3600
TNR3015-1R0NM	1.00	100	30	54.0	3060	2700
TNR3015-1R5NM	1.50	100	30	63.0	2700	2340
TNR3015-2R2NM	2.20	100	30	90.0	2070	1800
TNR3015-3R3MM	3.30	100	20	125.0	1710	1620
TNR3015-4R7MM	4.70	100	20	170.0	1420	1360
TNR3015-6R8MM	6.80	100	20	235.0	1200	1170
TNR3015-100MM	10.00	100	20	360.0	950	900
TNR3015-150MM	15.00	100	20	550.0	810	720
TNR3015-220MM	22.00	100	20	770.0	680	580
TNR3015-330MM	33.00	100	20	930.0	580	540
TNR3015-470MM	47.00	100	20	1500.0	460	370
TNR3015-101MM	100.00	100	20	2700.0	320	270
TNR3015-R22MH	0.22	1000	20	19 max.	8800	5900
TNR3015-R24MH	0.24	1000	20	19 max.	8600	5900
TNR3015-R33MH	0.33	1000	20	21 max.	8000	5800
TNR3015-R47MH	0.47	1000	20	26 max.	7600	5000
TNR3015-R68MH	0.68	1000	20	37 max.	7000	4500
TNR3015-1R0MH	1.00	1000	20	48 max.	5800	3800
TNR3015-1R5MH	1.50	1000	20	72 max.	4600	2700
TNR3015-2R2MH	2.20	1000	20	95 max.	3700	2500
TNR3015-3R3MH	3.30	1000	20	150 max.	3400	2300
TNR3015-4R7MH	4.70	1000	20	185 max.	2500	1900
TNR3015-6R8MH	6.80	1000	20	320 max.	2000	1350
TNR3015-100MH	10.00	1000	20	450 max.	1600	1200
TNR3015-150MH	15.00	1000	20	610 max.	1450	1200
TNR3015-220MH	22.00	1000	20	910 max.	1000	660
TNR3015-470MH	47.00	1000	20	1900 max.	800	480

\* Irms: DC current that will cause an approximate  $\Delta T$  of 40°C.

\* Isat : DC current that will cause L to drop approximately 30%.

## TNR Series ( Rev. 5.0 )

## Electrical Characteristics

P/N	L ( $\mu$ H)	Test Freq. (KHz/1.0V)	Tolerance ( $\pm$ %)	DCR ( $m\Omega$ ) $\pm$ 30%	Isat (mA) max.	Irms (mA) typ.
TNR4012-R56MH	0.56	1000	20	40.0	6000	3200
TNR4012-R68MH	0.68	1000	20	42.0	5200	3200
TNR4012-1R0MH	1.00	1000	20	49.0	3800	3000
TNR4012-2R2MH	2.20	1000	20	75.0	2800	2500
TNR4012-3R3MH	3.30	1000	20	106.0	2800	2000
TNR4012-4R7MH	4.70	1000	20	145.0	2300	1800
TNR4012-6R8MH	6.80	1000	20	190.0	1600	1500
TNR4012-100MH	10.00	1000	20	300.0	1550	850
TNR4012-1R0N	1.00	100	30	60.0	2500	1500
TNR4012-2R2M	2.20	100	20	90.0	1650	1200
TNR4012-3R3M	3.30	100	20	130.0	1200	980
TNR4012-4R7M	4.70	100	20	120.0	1200	960
TNR4012-6R8M	6.80	100	20	180.0	900	840
TNR4012-100M	10.00	100	20	240.0	740	770
TNR4012-150M	15.00	100	20	400.0	650	600
TNR4012-220M	22.00	100	20	480.0	510	540
TNR4012-330M	33.00	100	20	810.0	400	420
TNR4012-470M	47.00	100	20	1000.0	350	370
TNR4018-1R0N	1.00	100	30	23.0	4500	2500
TNR4018-1R5N	1.50	100	30	33.0	3350	2340
TNR4018-2R2M	2.20	100	20	44.0	2700	2000
TNR4018-3R3M	3.30	100	20	70.0	2450	1900
TNR4018-4R7M	4.70	100	20	90.0	1700	1700
TNR4018-5R6M	5.60	100	20	103.0	1600	1500
TNR4018-6R8M	6.80	100	20	124.0	1450	1300
TNR4018-100M	10.00	100	20	200.0	1300	1100
TNR4018-150M	15.00	100	20	268.0	940	920
TNR4018-220M	22.00	100	20	390.0	800	800
TNR4018-330M	33.00	100	20	560.0	650	600
TNR4018-470M	47.00	100	20	850.0	570	500
TNR4018-680M	68.00	100	20	1000.0	470	320
TNR4018-101M	100.00	100	20	1750.0	400	250
TNR4018-151M	150.00	100	20	2500.0	310	220
TNR4018-221M	220.00	100	20	4000.0	270	170

\* Irms : DC current that will cause an approximate  $\Delta T$  of 40°C.

\* Isat : DC current that will cause L to drop approximately 30%.

## TNR Series ( Rev. 5.0 )

## Electrical Characteristics

P/N	L (uH)	Test Freq. (KHz/1.0V)	Tolerance ( ±% )	DCR ( mΩ) ±30%	Isat (mA) max.	Irms (mA) typ.
TNR4020-R24MH	0.24	1000	20	13.0	14000	7000
TNR4020-R33MH	0.33	1000	20	15.0	13000	6800
TNR4020-R47MH	0.47	1000	20	16.0	11000	6800
TNR4020-R68MH	0.68	1000	20	19.2	9000	6700
TNR4020-1R0MH	1.00	1000	20	23.0	8700	6000
TNR4020-1R5MH	1.50	1000	20	32.0	7700	4800
TNR4020-2R2MH	2.20	1000	20	46.0	6000	4000
TNR4020-3R3MH	3.30	1000	20	73.0	4700	3400
TNR4020-4R7MH	4.70	1000	20	95.0	4000	2850
TNR4020-6R8MH	6.80	1000	20	130.0	3000	2400
TNR4020-8R2MH	8.20	1000	20	175.0	2900	2100
TNR4020-100MH	10.00	1000	20	190.0	2800	2000
TNR4020-150MH	15.00	1000	20	305.0	2100	750
TNR4020-1R0N	1.00	100	30	28.0	5100	2150
TNR4020-1R2N	1.20	100	30	29.0	4700	2100
TNR4020-1R5N	1.50	100	30	35.0	4450	1980
TNR4020-2R2M	2.20	100	20	40.0	3400	1850
TNR4020-3R3M	3.30	100	20	70.0	3200	1400
TNR4020-4R7M	4.70	100	20	80.0	2350	1340
TNR4020-5R6M	5.60	100	20	95.0	2200	1220
TNR4020-6R8M	6.80	100	20	125.0	2000	1040
TNR4020-8R2M	8.20	100	20	150.0	1750	1000
TNR4020-100M	10.00	100	20	165.0	1600	900
TNR4020-120M	12.00	100	20	175.0	1500	880
TNR4020-150M	15.00	100	20	230.0	1350	770
TNR4020-220M	22.00	100	20	350.0	1050	620
TNR4020-270M	27.00	100	20	545.0	1020	500
TNR4020-330M	33.00	100	20	550.0	850	490
TNR4020-470M	47.00	100	20	710.0	740	440
TNR4020-680M	68.00	100	20	1250.0	600	350

\* Irms: DC current that will cause an approximate  $\Delta T$  of 40°C.

\*Isat: DC current that will cause L to drop approximately 30%.



## TNR Series ( Rev. 5.0 )

## Electrical Characteristics

P/N	L (uH)	Test Freq. (KHz/1.0V)	Tolerance ( ± % )	DCR ( mΩ) ±30%	Isat (mA) max.	Irms (mA) typ.
TNR4030-R47N	0.47	100	30	11.0	7500	3500
TNR4030-1R0N	1.00	100	30	15.0	5900	3400
TNR4030-1R5N	1.50	100	30	25.0	4850	3300
TNR4030-2R2M	2.20	100	20	35.0	4100	2950
TNR4030-3R3M	3.30	100	20	40.0	3300	2400
TNR4030-4R7M	4.70	100	20	60.0	2900	2000
TNR4030-5R6M	5.60	100	20	70.0	2750	1950
TNR4030-6R8M	6.80	100	20	75.0	2600	1700
TNR4030-7R5M	7.50	100	20	90.0	2200	1650
TNR4030-8R2M	8.20	100	20	100.0	2100	1600
TNR4030-100M	10.00	100	20	115.0	1950	1500
TNR4030-120M	12.00	100	20	140.0	1700	1350
TNR4030-150M	15.00	100	20	190.0	1650	1150
TNR4030-180M	18.00	100	20	215.0	1400	1100
TNR4030-220M	22.00	100	20	225.0	1300	1000
TNR4030-330M	33.00	100	20	330.0	1100	840
TNR4030-470M	47.00	100	20	500.0	850	650
TNR4030-560M	56.00	100	20	560.0	850	650
TNR4030-680M	68.00	100	20	750.0	750	550
TNR4030-820M	82.00	100	20	950.0	680	500
TNR4030-101M	100.00	100	20	1150.0	600	450
TNR5020-1R0N	1.00	100	30	20.0	4330	3700
TNR5020-1R5N	1.50	100	30	26.0	4100	3200
TNR5020-2R2N	2.20	100	30	38.0	3850	2900
TNR5020-3R3M	3.30	100	20	46.0	3250	2400
TNR5020-4R7M	4.70	100	20	65.0	2400	2050
TNR5020-6R8M	6.80	100	20	92.0	2100	1700
TNR5020-100M	10.00	100	20	125.0	1800	1500
TNR5020-120M	12.00	100	20	140.0	1500	1400
TNR5020-150M	15.00	100	20	180.0	1440	1250
TNR5020-180M	18.00	100	20	200.0	1250	1150
TNR5020-220M	22.00	100	20	250.0	1180	1050
TNR5020-330M	33.00	100	20	370.0	970	830
TNR5020-470M	47.00	100	20	560.0	810	700
TNR5020-560M	56.00	100	20	630.0	770	660
TNR5020-101M	100.00	100	20	1100.0	530	530

\* Irms: DC current that will cause an approximate  $\Delta T$  of 40°C.

\* Isat : DC current that will cause L to drop approximately 30%.



## TNR Series ( Rev. 5.0 )

## Electrical Characteristics

P/N	L (uH)	Test Freq. (KHz/1.0V)	Tolerance ( ±% )	DCR ( mΩ) ±30%	Isat (mA) max.	Irms (mA) typ.
TNR5030-R47N	0.47	100	30	10.0	9000	5000
TNR5030-1R0N	1.0	100	30	15.0	6650	4000
TNR5030-1R5N	1.5	100	30	16.0	4800	3900
TNR5030-2R2M	2.2	100	20	23.0	4200	3500
TNR5030-3R3M	3.3	100	20	30.0	3600	3000
TNR5030-4R7M	4.7	100	20	35.0	3100	2600
TNR5030-6R8M	6.8	100	20	52.0	2500	2300
TNR5030-100M	10.0	100	20	70.0	1900	1700
TNR5030-150M	15.0	100	20	125.0	1600	1400
TNR5030-220M	22.0	100	20	180.0	1400	1050
TNR5030-270M	27.0	100	20	190.0	1300	900
TNR5030-330M	33.0	100	20	225.0	1150	800
TNR5030-470M	47.0	100	20	325.0	950	700
TNR5030-560M	56.0	100	20	420.0	890	650
TNR5030-680M	68.0	100	20	475.0	850	600
TNR5030-101M	100.0	100	20	720.0	580	590
TNR5030-151M	150.0	100	20	1050.0	560	550
TNR5030-221M	220.0	100	20	1300.0	500	450

\* I<sub>rms</sub>: DC current that will cause an approximate  $\Delta T$  of 40°C.\* I<sub>sat</sub> : DC current that will cause L to drop approximately 30%.

## TNR Series ( Rev. 5.0 )

## Electrical Characteristics

P/N	L (uH)	Test Freq. (KHz/1.0V)	Tolerance ( ±% )	DCR ( mΩ) ±30%	Isat (mA) max.	Irms (mA) typ.
TNR5040-1R0N	1.00	100	30	13.0	7350	4900
TNR5040-1R5N	1.50	100	30	15.0	6300	4300
TNR5040-2R2N	2.20	100	30	19.0	4900	3800
TNR5040-3R3N	3.30	100	30	24.0	3950	3400
TNR5040-3R9N	3.90	100	30	27.0	3550	3200
TNR5040-4R7N	4.70	100	30	30.0	3500	3000
TNR5040-5R6M	5.60	100	20	33.0	3200	2800
TNR5040-6R8M	6.80	100	20	43.0	2900	2500
TNR5040-100M	10.00	100	20	64.0	2350	2100
TNR5040-150M	15.00	100	20	86.0	2000	2000
TNR5040-220M	22.00	100	20	129.0	1600	1500
TNR5040-270M	27.00	100	20	165.0	1500	1300
TNR5040-330M	33.00	100	20	188.0	1300	1200
TNR5040-470M	47.00	100	20	270.0	1100	1000
TNR5040-680M	68.00	100	20	400.0	900	800
TNR5040-101M	100.00	100	20	560.0	750	700
TNR5040-221M	220.00	100	20	1330.0	450	400
TNR5040-331M	330.00	100	20	2100.0	420	360
TNR5040-471M	470.00	100	20	3000.0	370	350
TNR6015-1R2N	1.20	100	30	35.0	4200	2800
TNR6015-2R2N	2.20	100	30	50.0	3100	2300
TNR6015-3R3N	3.30	100	30	60.0	2600	2100
TNR6015-4R7M	4.70	100	20	90.0	2100	1900
TNR6015-5R6M	5.60	100	20	92.0	2000	1800
TNR6015-6R8M	6.80	100	20	115.0	1800	1650
TNR6015-100M	10.00	100	20	155.0	1450	1350
TNR6015-150M	15.00	100	20	220.0	1200	1200
TNR6015-220M	22.00	100	20	320.0	1000	1000
TNR6020-1R0N	1.00	100	30	20.0	4150	3500
TNR6020-1R5N	1.50	100	30	22.0	4250	3200
TNR6020-2R2N	2.20	100	30	28.0	3750	2750
TNR6020-3R3N	3.30	100	30	35.0	3150	2600
TNR6020-4R7N	4.70	100	30	58.0	3000	2000
TNR6020-6R8N	6.80	100	30	79.0	2200	1800
TNR6020-100M	10.00	100	20	105.0	1750	1400
TNR6020-120M	12.00	100	20	120.0	1450	1300
TNR6020-150M	15.00	100	20	145.0	1200	1200
TNR6020-180M	18.00	100	20	180.0	1200	1080
TNR6020-220M	22.00	100	20	204.0	1050	1000
TNR6020-330M	33.00	100	20	339.0	900	800
TNR6020-470M	47.00	100	20	500.0	750	700
TNR6020-680M	68.00	100	20	739.0	680	550
TNR6020-101M	100.00	100	20	1116.0	500	350
TNR6020-221M	220.00	100	20	2400.0	350	300
TNR6020-331M	330.00	100	20	3577.0	280	200
TNR6020-102M	1000.00	100	20	11039.0	180	100

\* I<sub>rms</sub>: DC current that will cause an approximate  $\Delta T$  of 40°C.\* I<sub>sat</sub>: DC current that will cause L to drop approximately 30%.

## TNR Series (Rev. 5.0)

## Electrical Characteristics

P/N	L (uH)	Test Freq. (KHz/1.0V)	Tolerance ( ± % )	DCR ( mΩ) ±30%	Isat (mA) max.	Irms (mA) typ.
TNR6028-1R0N	1.00	100	30	12.0	6700	4600
TNR6028-1R5N	1.50	100	30	16.0	6000	4300
TNR6028-2R2N	2.20	100	30	20.0	5100	3750
TNR6028-3R3N	3.30	100	30	25.0	3630	3400
TNR6028-4R7N	4.70	100	30	33.0	3000	3000
TNR6028-5R6M	5.60	100	20	45.0	2800	2450
TNR6028-6R8M	6.80	100	20	56.0	2600	2400
TNR6028-8R2M	8.20	100	20	68.0	2400	2250
TNR6028-100M	10.00	100	20	78.0	2050	1900
TNR6028-120M	12.00	100	20	88.0	1800	1700
TNR6028-150M	15.00	100	20	125.0	1750	1500
TNR6028-180M	18.00	100	20	130.0	1550	1450
TNR6028-220M	22.00	100	20	140.0	1450	1400
TNR6028-270M	27.00	100	20	180.0	1400	1300
TNR6028-330M	33.00	100	20	220.0	1350	1100
TNR6028-470M	47.00	100	20	280.0	1150	1050
TNR6028-680M	68.00	100	20	450.0	950	850
TNR6028-820M	82.00	100	20	550.0	800	700
TNR6028-101M	100.00	100	20	670.0	650	600
TNR6045-R47N	0.47	100	30	7.7	10000	5200
TNR6045-1R0N	1.00	100	30	10.0	9000	5100
TNR6045-1R5N	1.50	100	30	12.0	8800	4950
TNR6045-2R2N	2.20	100	30	13.0	6750	4600
TNR6045-3R3N	3.30	100	30	20.0	5300	3200
TNR6045-4R7M	4.70	100	20	24.0	4500	3000
TNR6045-5R6M	5.60	100	20	31.0	3700	2800
TNR6045-6R8M	6.80	100	20	33.0	3300	2700
TNR6045-100M	10.0	100	20	52.0	3000	2500
TNR6045-120M	12.0	100	20	60.0	2800	2200
TNR6045-150M	15.0	100	20	77.0	2500	1900
TNR6045-180M	18.0	100	20	81.0	2200	1850
TNR6045-220M	22.0	100	20	115.0	2000	1500
TNR6045-270M	27.0	100	20	130.0	1800	1450
TNR6045-330M	33.0	100	20	150.0	1650	1450
TNR6045-470M	47.0	100	20	220.0	1400	1200
TNR6045-560M	56.0	100	20	260.0	1300	1100
TNR6045-680M	68.0	100	20	290.0	1200	900
TNR6045-820M	82.0	100	20	341.0	1050	850
TNR6045-101M	100.0	100	20	430.0	1000	800
TNR6045-121M	120.0	100	20	484.0	860	770
TNR6045-151M	150.0	100	20	580.0	800	700
TNR6045-221M	220.0	100	20	834.0	700	590
TNR6045-331M	330.0	100	20	1270.0	570	570
TNR6045-102M	1000.0	100	20	5300.0	250	200

\* I<sub>rms</sub>: DC current that will cause an approximate ΔT of 40°C.\* I<sub>sat</sub> : DC current that will cause L to drop approximately 30%.

## TNR Series ( Rev. 5.0 )

## Electrical Characteristics

P/N	L (uH)	Test Freq. (KHz/1.0V)	Tolerance ( ± % )	DCR ( mΩ) ±30%	Isat (mA) max.	Irms (mA) typ.
TNR8040-1R0N	1.00	100	30	8.0	9850	6300
TNR8040-1R5N	1.50	100	30	10.0	8150	5650
TNR8040-2R2N	2.20	100	30	12.0	7100	5150
TNR8040-3R3N	3.30	100	30	17.0	6500	4400
TNR8040-4R7N	4.70	100	30	20.0	5900	4000
TNR8040-5R6M	5.60	100	20	24.0	5500	3800
TNR8040-6R8M	6.80	100	20	28.0	4550	3600
TNR8040-8R2M	8.20	100	20	35.0	4200	3400
TNR8040-100M	10.00	100	20	37.0	3600	3100
TNR8040-120M	12.00	100	20	42.0	3500	2800
TNR8040-150M	15.00	100	20	56.0	2950	2500
TNR8040-180M	18.00	100	20	60.0	2700	2400
TNR8040-220M	22.00	100	20	74.0	2400	2000
TNR8040-270M	27.00	100	20	78.0	2150	1900
TNR8040-330M	33.00	100	20	100.0	2050	1700
TNR8040-470M	47.00	100	20	158.0	1750	1500
TNR8040-680M	68.00	100	20	196.0	1450	1200
TNR8040-820M	82.00	100	20	225.0	1300	1150
TNR8040-101M	100.00	100	20	295.0	1150	1000
TNR8040-121M	120.00	100	20	334.0	1120	950
TNR8040-151M	150.00	100	20	470.0	1100	800
TNR8040-181M	180.00	100	20	610.0	900	750
TNR8040-221M	220.00	100	20	660.0	850	700
TNR8040-331M	330.00	100	20	970.0	680	550
TNR8065-150M	15.00	100	20	45.0	5200	3500
TNR8065-220M	22.00	100	20	54.0	4300	2850
TNR8065-330M	33.00	100	20	83.0	3600	2000
TNR8065-470M	47.00	100	20	135.0	2850	1800
TNR8065-680M	68.00	10	20	181.0	2500	1500
TNR8065-101M	100.00	10	20	250.0	2000	1300
TNR8065-151M	150.00	10	20	360.0	1600	1000
TNR8065-221M	220.00	10	20	528.0	1300	900
TNR1050-220M	22.00	100	20	65.0	4300	3500
TNR1050-330M	33.00	100	20	90.0	4000	3000
TNR1050-470M	47.00	100	20	125.0	3300	2500
TNR1050-680M	68.00	100	20	181.0	3000	2000
TNR1050-101M	100.00	100	20	260.0	2500	1600
TNR1050-221M	220.00	100	20	520.0	1800	1100

\* Irms: DC current that will cause an approximate  $\Delta T$  of 40°C.

\* Isat : DC current that will cause L to drop approximately 30%.

