



**Features :**

- ◆ Excellent solderability and high heat resistance.
- ◆ Magnetic-resin shielded construction reduces buzz noise to ultra-low levels.
- ◆ Ferrite core has excellent impact resistance and non-damage durability.
- ◆ Closed magnetic circuit design reduces leakage flux and electro magnetic interference.
- ◆ 30% higher current rating than conventional inductors of equal size.
- ◆ Takes up less PCB real estate and save more power.

**Environmental Data :**

- ◆ Operating temperature: - 40°C ~ +125°C, (Including coil's self temperature rise).
- ◆ Ambient temperature: - 40°C ~ +85°C. (referring to I<sub>rms</sub>)
- ◆ Storage temperature(on tape & reel): - 20°C ~ +60°C; 75% RH max.
- ◆ RoHS ,REACH compliance ,Halogen free available.

**Applications :**

- ◆ LED Lighting, VR, AR.
- ◆ Flat-screen TVs, Blue-ray disc recorders, set top box, movie cameras, smart phone.
- ◆ Notebooks, desktop computers, servers, graphic cards.
- ◆ Portable grming devices, personal navigation systems, personal mulitmedia devices.
- ◆ Telecom base stations.



**Product Identification :**

**TSNR**

**6045**

**S**

**- 1R0**

**N**

**T**

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① Series name	
TSNR	Wire wound, Resin coating SMD Power Inductor

③ Material type	
S	Standard

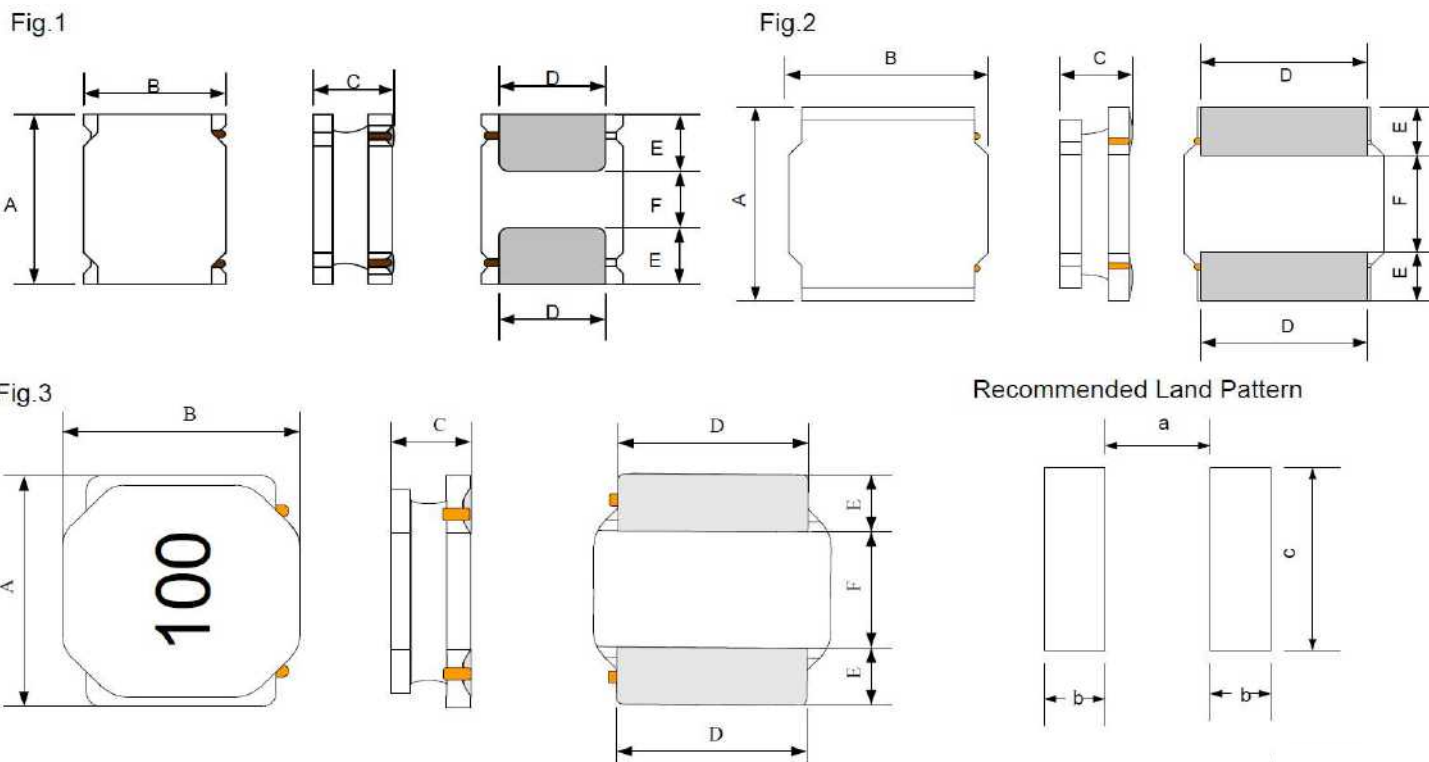
④ Inductance Value Code	
Code Example	Inductance Value
1R0	1.0 μH
100	10 μH
101	100 μH

⑤ Inductance Tolerance	
Code	Tolerance
K	± 10%
M	± 20%
N	± 30%

⑥ Packing	
T	Tape Carrier Package

② External Dimensions [L x W x H] (mm)	
2510	2.5 x 2.0 x 1.0
2512	2.5 x 2.0 x 1.2
3010	3.0 x 3.0 x 1.0
3012	3.0 x 3.0 x 1.2
3015	3.0 x 3.0 x 1.5
4010	4.0 x 4.0 x 1.0
4012	4.0 x 4.0 x 1.2
4018	4.0 x 4.0 x 1.8
4020	4.0 x 4.0 x 2.0
4026	4.0 x 4.0 x 2.6
4030	4.0 x 4.0 x 3.0
5012	5.0 x 5.0 x 1.2
5020	5.0 x 5.0 x 2.0
5040	5.0 x 5.0 x 4.0
6020	6.0 x 6.0 x 2.0
6028	6.0 x 6.0 x 2.8
6040	6.0 x 6.0 x 4.0
6045	6.0 x 6.0 x 4.5
8040	8.0 x 8.0 x 4.0
8050	8.0 x 8.0 x 5.0
8065	8.0 x 8.0 x 6.5
1050	10.0 x 10.0 x 5.0

**Shape and Dimensions : [mm]**



Series	Shape	A	B	C	D	E	F	a (Typ.)	b (Typ.)	c (Typ.)
TSNR2510	Fig.1	2.5±0.1	2.0±0.1	1.0 Max.	2.0±0.2	0.80±0.2	0.80±0.2	0.80	0.85	2.0
TSNR2512	Fig.1	2.5±0.1	2.0±0.1	1.2 Max.	2.0±0.2	0.80±0.2	0.80±0.2	0.80	0.85	2.0
TSNR3010	Fig.2	3.0±0.2	3.0±0.2	1.0 Max.	2.5±0.2	0.75±0.2	1.5±0.2	1.50	0.80	2.7
TSNR3012	Fig.2	3.0±0.2	3.0±0.2	1.2 Max.	2.5±0.2	0.75±0.2	1.5±0.2	1.50	0.80	2.7
TSNR3015	Fig.2	3.0±0.2	3.0±0.2	1.5 Max.	2.5±0.2	0.75±0.2	1.5±0.2	1.50	0.80	2.7
TSNR4010	Fig.2	4.0±0.2	4.0±0.2	1.0 Max.	3.3±0.2	0.95±0.2	2.1±0.2	1.90	1.10	3.7
TSNR4012	Fig.2	4.0±0.2	4.0±0.2	1.2 Max.	3.3±0.2	0.95±0.2	2.1±0.2	1.90	1.10	3.7
TSNR4018	Fig.2	4.0±0.2	4.0±0.2	1.8 Max.	3.3±0.2	0.95±0.2	2.1±0.2	1.90	1.10	3.7
TSNR4020	Fig.2	4.0±0.2	4.0±0.2	2.0 Max.	3.3±0.2	0.95±0.2	2.1±0.2	1.90	1.10	3.7
TSNR4026	Fig.2	4.0±0.2	4.0±0.2	2.6 Max.	3.3±0.2	0.95±0.2	2.1±0.2	1.90	1.10	3.7
TSNR4030	Fig.2	4.0±0.2	4.0±0.2	3.0 Max.	3.3±0.2	0.95±0.2	2.1±0.2	1.90	1.10	3.7
TSNR5012	Fig.3	5.0±0.2	5.0±0.2	1.2 Max.	4.0±0.2	1.25±0.2	2.5±0.2	2.30	1.40	4.2
TSNR5020	Fig.3	5.0±0.2	5.0±0.2	2.0 Max.	4.0±0.2	1.25±0.2	2.5±0.2	2.30	1.40	4.2
TSNR5040	Fig.3	5.0±0.2	5.0±0.2	4.0 Max.	4.0±0.2	1.25±0.2	2.5±0.2	2.30	1.40	4.2
TSNR6020	Fig.2	6.0±0.3	6.0±0.3	2.0 Max.	4.9±0.3	1.55±0.3	2.9±0.3	2.80	1.70	5.7
TSNR6028	Fig.2	6.0±0.3	6.0±0.3	2.8 Max.	4.9±0.3	1.55±0.3	2.9±0.3	2.80	1.70	5.7
TSNR6040	Fig.2	6.0±0.3	6.0±0.3	4.0 Max.	4.9±0.3	1.55±0.3	2.9±0.3	2.80	1.70	5.7
TSNR6045	Fig.2	6.0±0.3	6.0±0.3	4.5 Max.	4.9±0.3	1.55±0.3	2.9±0.3	2.80	1.70	5.7
TSNR8040	Fig.2	8.0±0.3	8.0±0.3	4.2 Max.	6.3±0.3	2.0±0.3	4.0±0.3	3.80	2.20	7.5
TSNR8050	Fig.3	8.0±0.3	8.0±0.3	5.0 Max.	6.3±0.3	2.0±0.3	4.0±0.3	3.80	2.20	7.5
TSNR8065	Fig.3	8.0±0.3	8.0±0.3	6.5 Max.	6.3±0.3	2.0±0.3	4.0±0.3	3.80	2.20	7.5
TSNR1050	Fig.3	10.0±0.3	10.0±0.3	5.1 Max.	4.2±0.3	1.7±0.3	6.6±0.3	6.20	2.00	5.5

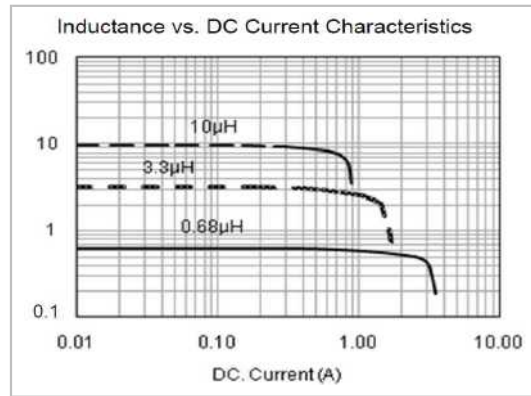
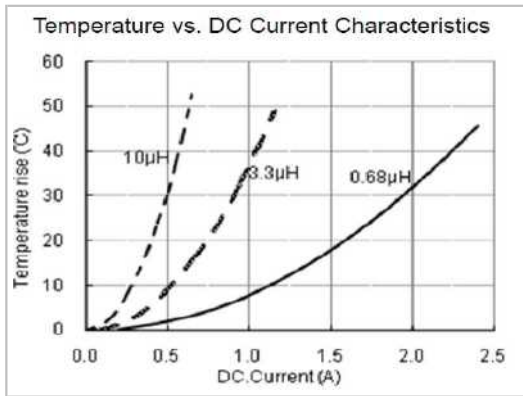
**Electrical Specification | TSNR2510S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR2510S-R47NT	0.47 $\pm$ 30%	2.35	2.56	2.50	3.35	0.056	0.047	206
TSNR2510S-R56NT	0.56 $\pm$ 30%	2.00	2.18	2.90	3.20	0.072	0.060	160
TSNR2510S-R68NT	0.68 $\pm$ 30%	2.00	2.18	2.20	2.75	0.074	0.062	129
TSNR2510S-1R0NT	1.0 $\pm$ 30%	1.65	1.80	1.85	2.20	0.108	0.090	100
TSNR2510S-1R5NT	1.5 $\pm$ 30%	1.30	1.42	1.80	2.10	0.182	0.152	81
TSNR2510S-2R2NT	2.2 $\pm$ 30%	1.20	1.31	1.20	1.60	0.209	0.174	61
TSNR2510S-3R3MT	3.3 $\pm$ 20%	0.90	0.98	1.05	1.30	0.328	0.273	47
TSNR2510S-4R7MT	4.7 $\pm$ 20%	0.70	0.76	0.95	1.15	0.563	0.469	42
TSNR2510S-5R6MT	5.6 $\pm$ 20%	0.73	0.80	0.80	0.95	0.563	0.469	35
TSNR2510S-6R8MT	6.8 $\pm$ 20%	0.59	0.64	0.78	0.92	0.896	0.747	31
TSNR2510S-100MT	10.0 $\pm$ 20%	0.50	0.55	0.65	0.78	1.092	0.910	27

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}\text{C}$ ) from  $20^{\circ}\text{C}$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to  $20^{\circ}\text{C}$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR2512S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR2512S-R47NT	0.47 $\pm$ 30%	2.15	2.34	3.82	4.27	0.061	0.047	160
TSNR2512S-R68NT	0.68 $\pm$ 30%	1.95	2.13	3.28	3.68	0.074	0.057	140
TSNR2512S-1R0NT	1.0 $\pm$ 30%	1.93	2.10	2.59	2.90	0.090	0.069	110
TSNR2512S-1R2NT	1.2 $\pm$ 30%	1.46	1.59	2.38	2.67	0.129	0.099	100
TSNR2512S-1R5NT	1.5 $\pm$ 30%	1.40	1.53	2.24	2.51	0.147	0.113	97
TSNR2512S-2R2NT	2.2 $\pm$ 30%	1.15	1.25	1.85	2.07	0.216	0.166	69
TSNR2512S-2R7MT	2.7 $\pm$ 20%	1.09	1.19	1.72	1.92	0.239	0.184	63
TSNR2512S-3R3MT	3.3 $\pm$ 20%	1.04	1.13	1.61	1.80	0.264	0.203	62
TSNR2512S-3R6MT	3.6 $\pm$ 20%	0.90	0.98	1.46	1.64	0.348	0.268	53
TSNR2512S-4R3MT	4.3 $\pm$ 20%	0.87	0.95	1.37	1.53	0.377	0.290	51
TSNR2512S-4R7MT	4.7 $\pm$ 20%	0.84	0.92	1.12	1.25	0.377	0.290	47
TSNR2512S-5R1MT	5.1 $\pm$ 20%	0.75	0.82	1.37	0.75	0.500	0.385	44
TSNR2512S-5R6MT	5.6 $\pm$ 20%	0.73	0.80	1.11	1.25	0.538	0.414	38

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\* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others). Please kindly contact K-WELL as follows.

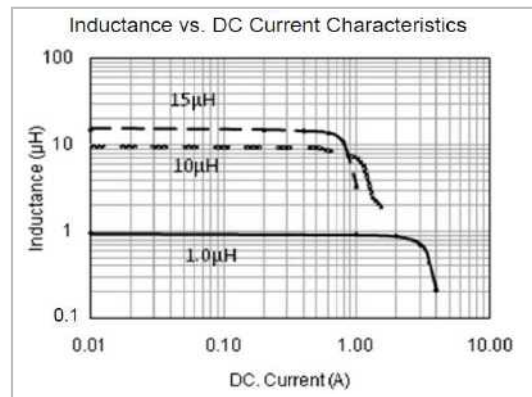
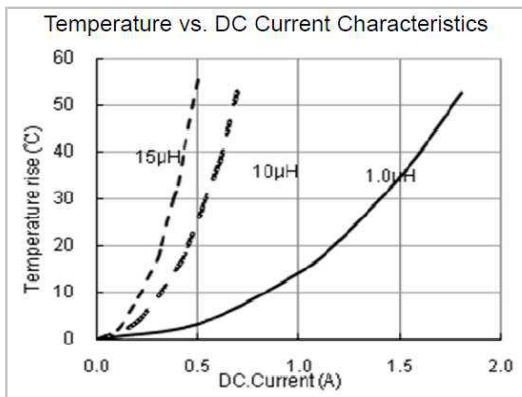
**Electrical Specification | TSNR2512S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR2512S-6R2MT	6.2 $\pm$ 20%	0.73	0.80	1.03	1.16	0.542	0.417	38
TSNR2512S-6R8MT	6.8 $\pm$ 20%	0.69	0.75	0.98	1.09	0.581	0.447	38
TSNR2512S-7R5MT	7.5 $\pm$ 20%	0.68	0.74	0.97	1.09	0.611	0.470	35
TSNR2512S-8R2MT	8.2 $\pm$ 20%	0.65	0.71	0.98	1.10	0.658	0.506	36
TSNR2512S-9R1MT	9.1 $\pm$ 20%	0.62	0.68	0.91	1.02	0.690	0.531	34
TSNR2512S-100MT	10 $\pm$ 20%	0.62	0.68	0.79	0.88	0.690	0.531	34
TSNR2512S-120MT	12 $\pm$ 20%	0.51	0.56	0.78	0.88	1.075	0.827	28
TSNR2512S-150MT	15 $\pm$ 20%	0.42	0.46	0.68	0.77	1.591	1.224	25
TSNR2512S-220MT	22 $\pm$ 20%	0.38	0.41	0.53	0.59	1.976	1.520	20

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}C$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR3010S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR3010S-1R0NT	1.0 $\pm$ 30%	1.45	1.80	1.40	2.10	0.085	0.065	180
TSNR3010S-1R2NT	1.2 $\pm$ 30%	1.45	1.80	1.25	1.70	0.085	0.065	137
TSNR3010S-1R5NT	1.5 $\pm$ 30%	1.30	1.60	1.27	1.70	0.104	0.080	120
TSNR3010S-2R2NT	2.2 $\pm$ 30%	1.09	1.40	1.15	1.50	0.143	0.110	100
TSNR3010S-2R7NT	2.7 $\pm$ 30%	1.02	1.40	1.00	1.20	0.169	0.130	90
TSNR3010S-3R3NT	3.3 $\pm$ 30%	0.96	1.20	0.97	1.20	0.189	0.145	74
TSNR3010S-3R6MT	3.6 $\pm$ 20%	0.90	1.10	0.95	1.20	0.215	0.165	67
TSNR3010S-4R7MT	4.7 $\pm$ 20%	0.77	1.10	0.75	1.05	0.293	0.225	59
TSNR3010S-5R6MT	5.6 $\pm$ 20%	0.70	1.05	0.58	0.65	0.322	0.248	40
TSNR3010S-6R8MT	6.8 $\pm$ 20%	0.66	0.96	0.55	0.72	0.397	0.305	42
TSNR3010S-8R2MT	8.2 $\pm$ 20%	0.58	0.70	0.55	0.70	0.520	0.400	23
TSNR3010S-100MT	10 $\pm$ 20%	0.58	0.70	0.55	0.75	0.520	0.400	39
TSNR3010S-120MT	12 $\pm$ 20%	0.52	0.67	0.43	0.65	0.657	0.505	36
TSNR3010S-150MT	15 $\pm$ 20%	0.47	0.57	0.42	0.57	0.793	0.610	30
TSNR3010S-220MT	22 $\pm$ 20%	0.38	0.52	0.35	0.48	1.209	0.930	28

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\* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others). Please kindly contact K-WELL as follows.

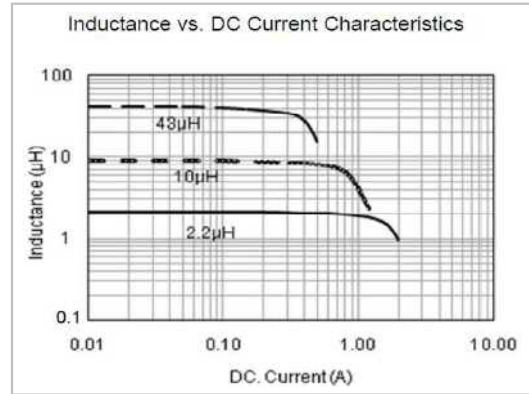
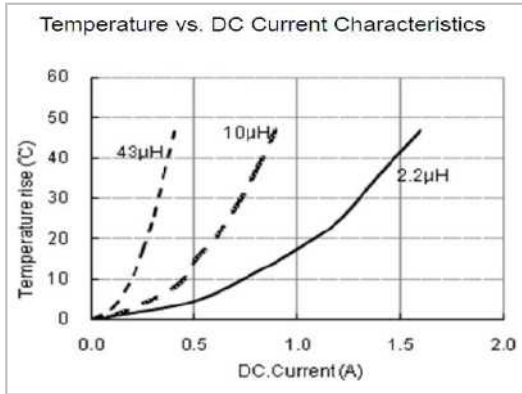
**Electrical Specification | TSNR3010S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR3010S-270MT	27 $\pm$ 20%	0.35	0.50	0.30	0.45	1.404	1.080	25
TSNR3010S-330MT	33 $\pm$ 20%	0.30	0.55	0.29	0.42	2.015	1.550	18
TSNR3010S-390MT	39 $\pm$ 20%	0.28	0.53	0.28	0.38	2.275	1.750	18
TSNR3010S-430MT	43 $\pm$ 20%	0.27	0.52	0.23	0.36	2.340	1.800	18
TSNR3010S-470MT	47 $\pm$ 20%	0.26	0.52	0.22	0.35	2.535	1.950	18
TSNR3010S-510MT	51 $\pm$ 20%	0.25	0.48	0.21	0.33	2.860	2.200	18
TSNR3010S-560MT	56 $\pm$ 20%	0.24	0.35	0.21	0.28	3.016	2.320	16

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}C$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR3012S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR3012S-R22NT	0.22 $\pm$ 30%	3.00	3.30	5.30	6.00	0.022	0.017	321
TSNR3012S-R82NT	0.82 $\pm$ 30%	2.47	3.00	2.05	2.80	0.039	0.030	180
TSNR3012S-1R0NT	1.0 $\pm$ 30%	2.20	2.70	1.87	2.80	0.052	0.040	120
TSNR3012S-1R2NT	1.2 $\pm$ 30%	2.01	2.20	2.22	2.50	0.059	0.045	120
TSNR3012S-1R5NT	1.5 $\pm$ 30%	2.01	2.20	1.62	1.90	0.059	0.045	110
TSNR3012S-1R8NT	1.8 $\pm$ 30%	1.65	1.80	1.30	1.90	0.082	0.063	90
TSNR3012S-2R2NT	2.2 $\pm$ 30%	1.55	1.70	1.20	1.00	0.098	0.075	84
TSNR3012S-2R4NT	2.4 $\pm$ 30%	1.60	1.70	1.15	1.50	0.088	0.068	100
TSNR3012S-2R7NT	2.7 $\pm$ 30%	1.48	1.50	1.14	1.50	0.110	0.085	65
TSNR3012S-3R3MT	3.3 $\pm$ 20%	1.36	1.40	1.05	1.50	0.130	0.100	64
TSNR3012S-3R6MT	3.6 $\pm$ 20%	1.36	1.40	1.05	1.50	0.130	0.100	36
TSNR3012S-3R9MT	3.9 $\pm$ 20%	1.24	1.30	1.00	1.30	0.189	0.145	61
TSNR3012S-4R7MT	4.7 $\pm$ 20%	1.24	1.30	0.90	1.00	0.156	0.120	61
TSNR3012S-5R6MT	5.6 $\pm$ 20%	1.13	1.24	0.80	1.10	0.226	0.174	61
TSNR3012S-6R8MT	6.8 $\pm$ 20%	0.98	1.10	0.75	0.90	0.247	0.190	61
TSNR3012S-100MT	10 $\pm$ 20%	0.83	0.90	0.60	0.88	0.345	0.265	42
TSNR3012S-120MT	12 $\pm$ 20%	0.73	0.84	0.48	0.67	0.449	0.345	32

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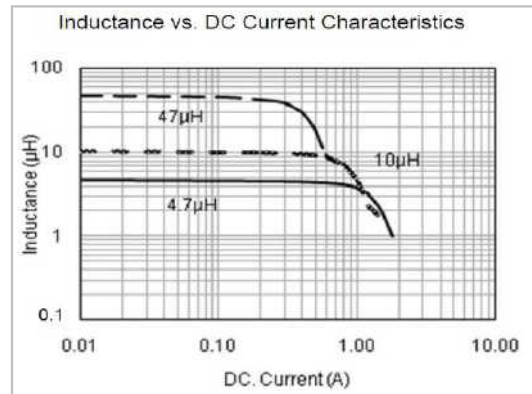
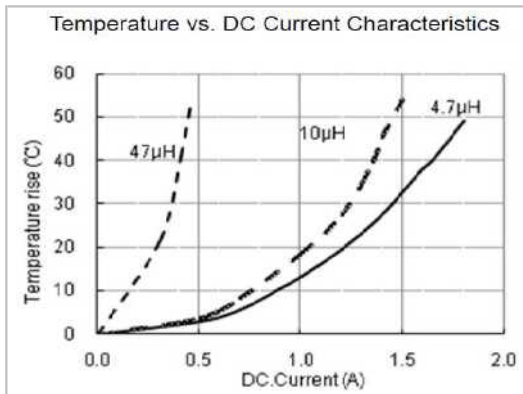
**Electrical Specification | TSNR3012S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR3012S-150MT	15 $\pm$ 20%	0.71	0.77	0.45	0.62	0.468	0.360	27
TSNR3012S-180MT	18 $\pm$ 20%	0.58	0.65	0.43	0.59	0.709	0.545	25
TSNR3012S-220MT	22 $\pm$ 20%	0.53	0.59	0.42	0.52	0.839	0.645	23
TSNR3012S-270MT	27 $\pm$ 20%	0.47	0.51	0.35	0.48	1.131	0.875	21
TSNR3012S-330MT	33 $\pm$ 20%	0.46	0.50	0.36	0.46	1.138	0.875	18
TSNR3012S-360MT	36 $\pm$ 20%	0.44	0.48	0.34	0.44	1.235	0.950	18
TSNR3012S-390MT	39 $\pm$ 20%	0.37	0.41	0.30	0.39	1.729	1.330	18
TSNR3012S-470MT	47 $\pm$ 20%	0.35	0.40	0.27	0.35	1.885	1.450	14
TSNR3012S-560MT	56 $\pm$ 20%	0.28	0.40	0.26	0.33	1.794	1.380	9
TSNR3012S-680MT	68 $\pm$ 20%	0.33	0.37	0.24	0.29	2.171	1.670	7
TSNR3012S-820MT	82 $\pm$ 20%	0.27	0.31	0.17	0.27	3.302	2.540	7
TSNR3012S-101MT	100 $\pm$ 20%	0.25	0.29	0.21	0.23	3.718	2.860	5

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}C$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR3015S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR3015S-R50NT	0.5 $\pm$ 30%	2.60	2.80	3.90	4.20	0.039	0.030	162
TSNR3015S-1R0NT	1.0 $\pm$ 30%	2.35	2.50	2.32	2.80	0.039	0.030	150
TSNR3015S-1R2NT	1.2 $\pm$ 30%	1.95	2.30	2.21	3.10	0.052	0.040	110
TSNR3015S-1R5NT	1.5 $\pm$ 30%	1.70	2.20	2.30	2.70	0.065	0.050	100
TSNR3015S-1R8NT	1.8 $\pm$ 30%	1.70	2.20	1.75	2.20	0.065	0.050	92
TSNR3015S-2R2NT	2.2 $\pm$ 30%	1.60	2.00	1.60	2.00	0.078	0.060	86
TSNR3015S-2R7NT	2.7 $\pm$ 30%	1.43	1.90	1.52	1.90	0.098	0.075	64
TSNR3015S-3R3MT	3.3 $\pm$ 20%	1.36	1.60	1.32	1.81	0.104	0.080	68
TSNR3015S-3R6MT	3.6 $\pm$ 20%	1.20	1.50	1.28	1.60	0.137	0.105	59
TSNR3015S-3R9MT	3.9 $\pm$ 20%	1.20	1.50	1.20	1.40	0.137	0.105	47
TSNR3015S-4R3MT	4.3 $\pm$ 20%	1.14	1.30	1.20	1.40	0.150	0.115	53
TSNR3015S-4R7MT	4.7 $\pm$ 20%	1.09	1.30	1.10	1.40	0.163	0.125	46

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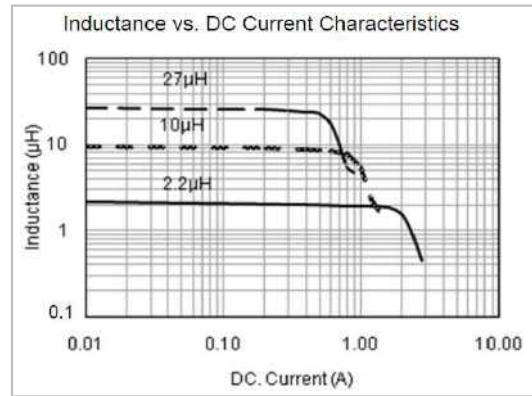
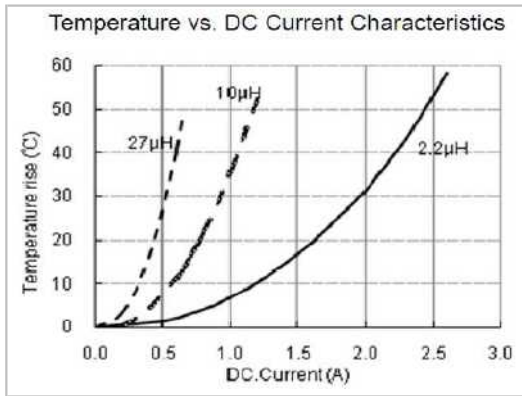
**Electrical Specification | TSNR3015S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR3015S-5R1MT	5.1 $\pm$ 20%	1.05	1.20	1.00	1.20	0.173	0.133	49
TSNR3015S-6R2MT	6.2 $\pm$ 20%	0.86	1.00	1.00	1.20	0.254	0.195	46
TSNR3015S-6R8MT	6.8 $\pm$ 20%	0.85	1.10	0.85	1.10	0.260	0.200	39
TSNR3015S-100MT	10 $\pm$ 20%	0.77	0.90	0.72	0.92	0.325	0.250	41
TSNR3015S-120MT	12 $\pm$ 20%	0.68	0.89	0.70	0.90	0.416	0.320	32
TSNR3015S-150MT	15 $\pm$ 20%	0.65	0.72	0.66	0.88	0.455	0.350	30
TSNR3015S-180MT	18 $\pm$ 20%	0.59	0.72	0.56	0.72	0.559	0.430	23
TSNR3015S-220MT	22 $\pm$ 20%	0.57	0.69	0.52	0.68	0.598	0.460	23
TSNR3015S-270MT	27 $\pm$ 20%	0.45	0.56	0.48	0.56	0.949	0.730	22
TSNR3015S-330MT	33 $\pm$ 20%	0.43	0.51	0.44	0.53	1.066	0.820	20
TSNR3015S-390MT	39 $\pm$ 20%	0.39	0.44	0.41	0.55	1.294	0.995	14
TSNR3015S-430MT	43 $\pm$ 20%	0.37	0.48	0.37	0.43	1.378	1.060	16
TSNR3015S-470MT	47 $\pm$ 20%	0.35	0.44	0.35	0.43	1.625	1.250	14
TSNR3015S-560MT	56 $\pm$ 20%	0.34	0.41	0.33	0.42	1.664	1.280	13
TSNR3015S-620MT	62 $\pm$ 20%	0.30	0.41	0.30	0.40	2.093	1.610	13
TSNR3015S-680MT	68 $\pm$ 20%	0.23	0.31	0.28	0.37	3.510	2.700	11
TSNR3015S-101MT	100 $\pm$ 20%	0.21	0.25	0.23	0.25	4.043	3.110	6.3
TSNR3015S-151MT	150 $\pm$ 20%	0.19	0.23	0.18	0.22	4.940	3.800	4.7

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}C$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR4010S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR4010S-1R0NT	1.0 $\pm$ 30%	1.90	2.40	2.00	2.30	0.067	0.056	116
TSNR4010S-1R5NT	1.5 $\pm$ 30%	1.70	2.00	1.68	2.00	0.084	0.070	94
TSNR4010S-2R2MT	2.2 $\pm$ 20%	1.50	2.00	1.20	1.50	0.102	0.085	73
TSNR4010S-3R3MT	3.3 $\pm$ 20%	1.40	1.80	1.10	1.40	0.120	0.100	58
TSNR4010S-4R7MT	4.6 $\pm$ 20%	1.20	1.50	0.95	1.10	0.168	0.140	47
TSNR4010S-6R8MT	6.8 $\pm$ 20%	1.00	1.20	0.80	0.95	0.240	0.200	38

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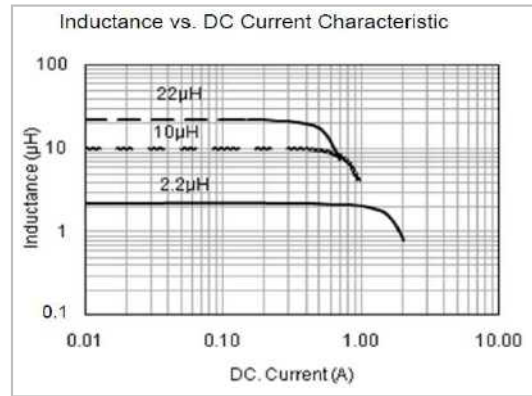
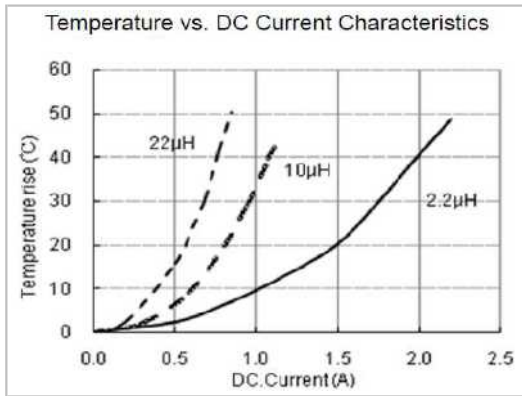
**Electrical Specification | TSNR4010S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR4010S-100MT	10 $\pm$ 20%	0.75	1.00	0.62	0.75	0.360	0.300	31
TSNR4010S-150MT	15 $\pm$ 20%	0.60	0.85	0.54	0.61	0.516	0.430	24
TSNR4010S-220MT	22 $\pm$ 20%	0.50	0.75	0.45	0.52	0.684	0.570	19

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}C$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR4012S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR4012S-R82NT	0.82 $\pm$ 30%	1.65	2.50	3.02	3.30	0.065	0.050	150
TSNR4012S-1R0NT	1.0 $\pm$ 30%	1.65	2.50	2.61	3.20	0.065	0.050	120
TSNR4012S-1R5NT	1.5 $\pm$ 30%	1.46	2.20	2.10	2.70	0.085	0.065	90
TSNR4012S-1R8NT	1.8 $\pm$ 30%	1.32	1.90	2.12	2.60	0.104	0.080	88
TSNR4012S-2R2NT	2.2 $\pm$ 30%	1.32	1.90	1.76	2.30	0.104	0.080	74
TSNR4012S-2R7NT	2.7 $\pm$ 30%	1.25	1.70	1.90	2.30	0.117	0.090	71
TSNR4012S-3R3NT	3.3 $\pm$ 30%	1.12	1.60	1.72	2.10	0.143	0.110	60
TSNR4012S-3R6NT	3.6 $\pm$ 30%	1.12	1.60	1.20	1.70	0.143	0.110	57
TSNR4012S-4R3NT	4.3 $\pm$ 30%	1.00	1.50	1.58	1.70	0.182	0.140	54
TSNR4012S-4R7NT	4.7 $\pm$ 30%	1.05	1.50	1.15	1.80	0.163	0.125	50
TSNR4012S-5R1NT	5.1 $\pm$ 30%	0.95	1.50	1.55	1.60	0.201	0.155	50
TSNR4012S-5R6NT	5.6 $\pm$ 30%	1.00	1.20	1.00	1.60	0.182	0.140	42
TSNR4012S-6R8MT	6.8 $\pm$ 20%	0.84	1.20	0.85	1.40	0.257	0.198	40
TSNR4012S-100MT	10 $\pm$ 20%	0.77	1.00	0.80	1.10	0.345	0.265	33
TSNR4012S-120MT	12 $\pm$ 20%	0.70	0.95	0.66	1.00	0.377	0.290	32
TSNR4012S-150MT	15 $\pm$ 20%	0.64	0.85	0.56	0.80	0.442	0.340	25
TSNR4012S-180MT	18 $\pm$ 20%	0.55	0.80	0.55	0.75	0.611	0.470	23
TSNR4012S-220MT	22 $\pm$ 20%	0.49	0.75	0.46	0.70	0.763	0.587	20
TSNR4012S-270MT	27 $\pm$ 20%	0.45	0.60	0.50	0.70	0.936	0.720	18
TSNR4012S-330MT	33 $\pm$ 20%	0.42	0.48	0.42	0.60	1.053	0.810	17
TSNR4012S-360MT	36 $\pm$ 20%	0.40	0.56	0.40	0.50	1.170	0.900	14

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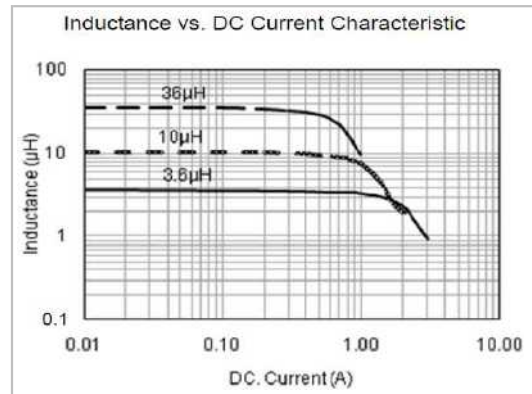
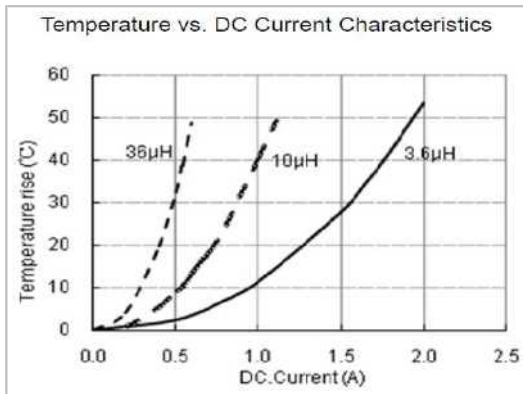
**Electrical Specification | TSNR4012S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR4012S-390MT	39 $\pm$ 20%	0.37	0.50	0.55	0.66	1.430	1.100	16
TSNR4012S-470MT	47 $\pm$ 20%	0.37	0.50	0.35	0.50	1.430	1.100	12
TSNR4012S-560MT	56 $\pm$ 20%	0.33	0.46	0.33	0.50	1.624	1.250	11
TSNR4012S-680MT	68 $\pm$ 20%	0.27	0.45	0.38	0.45	2.534	1.950	11
TSNR4012S-820MT	82 $\pm$ 20%	0.26	0.36	0.28	0.40	2.782	2.140	11
TSNR4012S-101MT	100 $\pm$ 20%	0.25	0.35	0.25	0.30	2.873	2.210	9.4

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}\text{C}$ ) from 20 $^{\circ}\text{C}$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}\text{C}$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR4018S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR4018S-R47NT	0.47 $\pm$ 30%	4.00	4.50	4.30	5.20	0.018	0.014	155
TSNR4018S-R68NT	0.68 $\pm$ 30%	3.30	3.80	4.90	5.60	0.026	0.020	128
TSNR4018S-1R0NT	1.0 $\pm$ 30%	2.00	3.30	4.80	5.20	0.033	0.025	80
TSNR4018S-1R5NT	1.5 $\pm$ 30%	1.80	3.20	3.35	4.00	0.039	0.030	65
TSNR4018S-1R8NT	1.8 $\pm$ 30%	2.00	2.80	3.00	3.40	0.044	0.034	54
TSNR4018S-2R2MT	2.2 $\pm$ 20%	1.65	2.60	2.70	3.20	0.590	0.045	52
TSNR4018S-3R3MT	3.3 $\pm$ 20%	1.23	2.10	2.45	2.90	0.091	0.070	44
TSNR4018S-4R7MT	4.7 $\pm$ 20%	1.20	1.80	1.70	2.20	0.117	0.090	34
TSNR4018S-6R8MT	6.8 $\pm$ 20%	1.06	1.50	1.45	2.00	0.143	0.110	29
TSNR4018S-100MT	10 $\pm$ 20%	0.84	1.20	1.30	1.60	0.234	0.180	24
TSNR4018S-150MT	15 $\pm$ 20%	0.65	1.00	0.94	1.10	0.325	0.250	19
TSNR4018S-220MT	22 $\pm$ 20%	0.59	0.85	0.80	0.88	0.468	0.360	16
TSNR4018S-270MT	27 $\pm$ 20%	0.52	0.90	0.47	0.62	0.611	0.470	27
TSNR4018S-330MT	33 $\pm$ 20%	0.49	0.72	0.56	0.75	0.689	0.530	12
TSNR4018S-470MT	47 $\pm$ 20%	0.42	0.65	0.57	0.70	0.845	0.650	10
TSNR4018S-680MT	68 $\pm$ 20%	0.32	0.52	0.47	0.51	1.300	1.000	8.3
TSNR4018S-101MT	100 $\pm$ 20%	0.25	0.41	0.40	0.44	2.275	1.750	6.5

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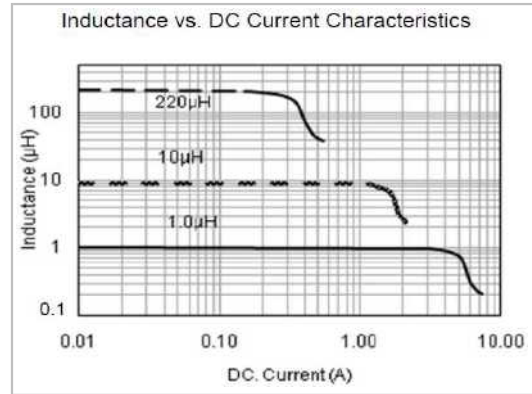
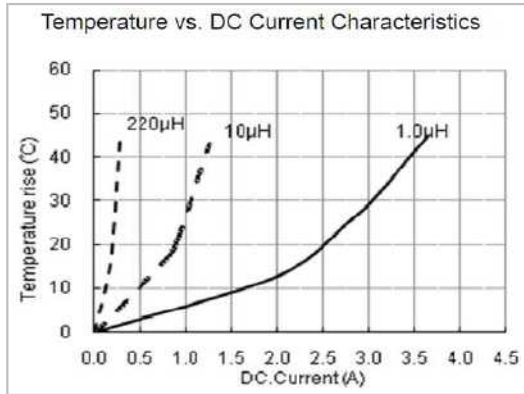
**Electrical Specification | TSNR4018S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR4018S-151MT	150 $\pm$ 20%	0.22	0.36	0.31	0.34	3.250	2.500	5.5
TSNR4018S-221MT	220 $\pm$ 20%	0.17	0.27	0.27	0.30	5.200	4.000	4

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}C$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR4020S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR4020S-R24NT	0.24 $\pm$ 30%	4.50	5.20	10.50	12.50	0.014	0.011	283
TSNR4020S-R33NT	0.33 $\pm$ 30%	3.30	4.90	7.50	8.50	0.016	0.013	223
TSNR4020S-R47NT	0.47 $\pm$ 30%	3.30	3.70	7.00	7.50	0.029	0.022	160
TSNR4020S-R68NT	0.68 $\pm$ 30%	2.80	3.30	6.40	6.60	0.036	0.028	120
TSNR4020S-1R0NT	1.0 $\pm$ 30%	2.15	3.20	4.78	5.20	0.038	0.029	75
TSNR4020S-1R2NT	1.2 $\pm$ 30%	2.15	3.20	5.10	5.60	0.038	0.029	72
TSNR4020S-1R5NT	1.5 $\pm$ 30%	1.98	3.00	4.45	4.90	0.046	0.035	71
TSNR4020S-2R2NT	2.2 $\pm$ 30%	1.85	2.80	3.40	3.70	0.052	0.040	49
TSNR4020S-3R3MT	3.3 $\pm$ 20%	1.40	2.50	3.20	3.50	0.091	0.070	44
TSNR4020S-3R6MT	3.6 $\pm$ 20%	1.54	2.50	2.80	3.00	0.072	0.055	49
TSNR4020S-4R7MT	4.7 $\pm$ 20%	1.34	2.00	2.35	2.50	0.098	0.075	42
TSNR4020S-5R1MT	5.1 $\pm$ 20%	1.27	1.80	2.30	2.50	0.111	0.085	42
TSNR4020S-5R6MT	5.6 $\pm$ 20%	1.22	1.80	2.20	2.40	0.117	0.090	30
TSNR4020S-6R2MT	6.2 $\pm$ 20%	1.08	1.60	2.15	2.30	0.150	0.115	36
TSNR4020S-6R8MT	6.8 $\pm$ 20%	1.04	1.60	2.20	2.40	0.163	0.125	33
TSNR4020S-7R5MT	7.5 $\pm$ 20%	1.08	1.50	1.85	2.00	0.150	0.115	30
TSNR4020S-8R2MT	8.2 $\pm$ 20%	1.04	1.40	1.75	1.90	0.163	0.125	27
TSNR4020S-100MT	10 $\pm$ 20%	0.90	1.20	1.60	1.70	0.215	0.165	26
TSNR4020S-120MT	12 $\pm$ 20%	0.88	1.20	1.50	1.60	0.228	0.175	26
TSNR4020S-150MT	15 $\pm$ 20%	0.77	1.10	1.35	1.50	0.299	0.230	24
TSNR4020S-220MT	22 $\pm$ 20%	0.62	0.87	1.05	1.10	0.455	0.350	15
TSNR4020S-270MT	27 $\pm$ 20%	0.50	0.70	1.02	1.10	0.709	0.545	14

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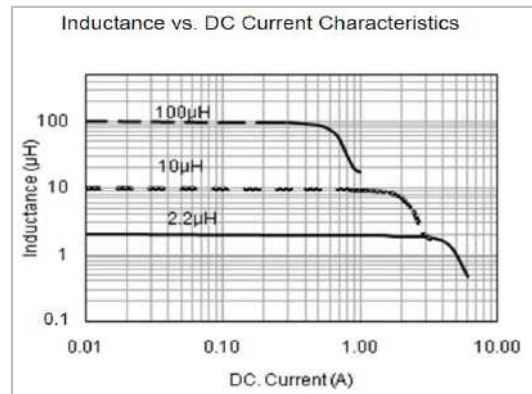
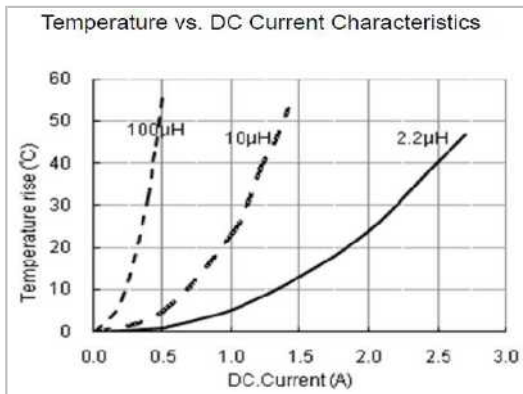
**Electrical Specification | TSNR4020S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR4020S-330MT	33 $\pm$ 20%	0.49	0.68	0.85	0.93	0.715	0.550	11
TSNR4020S-390MT	39 $\pm$ 20%	0.46	0.64	0.82	0.90	0.845	0.650	11
TSNR4020S-430MT	43 $\pm$ 20%	0.45	0.63	0.77	0.85	0.845	0.660	10
TSNR4020S-470MT	47 $\pm$ 20%	0.44	0.61	0.74	0.81	0.923	0.710	10
TSNR4020S-510MT	51 $\pm$ 20%	0.42	0.59	0.70	0.77	0.975	0.750	10
TSNR4020S-560MT	56 $\pm$ 20%	0.41	0.57	0.66	0.72	1.040	0.800	10
TSNR4020S-620MT	62 $\pm$ 20%	0.39	0.52	0.65	0.71	1.170	0.900	9.6
TSNR4020S-680MT	68 $\pm$ 20%	0.36	0.50	0.61	0.67	1.380	1.060	7.7
TSNR4020S-750MT	75 $\pm$ 20%	0.35	0.49	0.70	0.77	1.510	1.160	7.7
TSNR4020S-820MT	82 $\pm$ 20%	0.34	0.47	0.50	0.55	1.520	1.170	7.2
TSNR4020S-101MT	100 $\pm$ 20%	0.31	0.43	0.48	0.53	1.020	1.550	6.3

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}C$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR4026S Series**

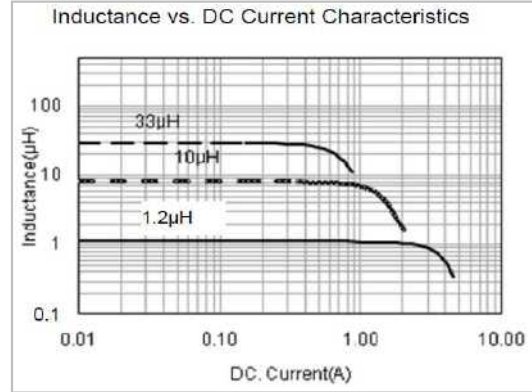
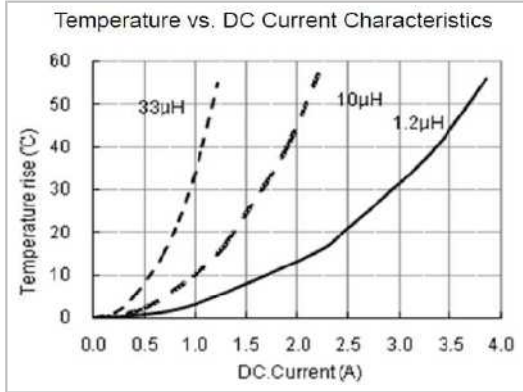
Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR4026S-1R0NT	1.0 $\pm$ 30%	3.00	3.30	3.30	3.80	0.031	0.024	151
TSNR4026S-1R2NT	1.2 $\pm$ 30%	2.30	3.30	3.10	3.40	0.039	0.030	120
TSNR4026S-1R5NT	1.5 $\pm$ 30%	2.30	3.10	2.40	2.90	0.039	0.030	100
TSNR4026S-2R2MT	2.2 $\pm$ 20%	2.00	3.80	2.10	2.40	0.052	0.040	96
TSNR4026S-3R3MT	3.3 $\pm$ 20%	1.70	2.50	1.80	2.00	0.065	0.050	58
TSNR4026S-4R7MT	4.7 $\pm$ 20%	1.60	2.30	1.45	1.70	0.072	0.055	46
TSNR4026S-6R8MT	6.8 $\pm$ 20%	1.50	2.00	1.30	1.50	0.085	0.065	33
TSNR4026S-100MT	10 $\pm$ 20%	1.30	1.90	1.00	1.20	0.110	0.085	26
TSNR4026S-150MT	15 $\pm$ 20%	1.10	1.50	0.90	1.00	0.143	0.110	19
TSNR4026S-220MT	22 $\pm$ 20%	0.90	1.40	0.60	0.80	0.214	0.165	13
TSNR4026S-330MT	33 $\pm$ 20%	0.70	1.00	0.55	0.65	0.351	0.270	9
TSNR4026S-470MT	47 $\pm$ 20%	0.65	0.90	0.40	0.55	0.390	0.300	6

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\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}\text{C}$ ) from  $20^{\circ}\text{C}$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to  $20^{\circ}\text{C}$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR4030S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu\text{H}$ ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{\text{rms}}$ [ A ]		$I_{\text{sat}}$ [ A ]		$R_{\text{DC}}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR4030S-R68NT	0.68±30%	4.56	5.10	6.80	8.00	0.013	0.010	130
TSNR4030S-R91NT	0.91±30%	4.15	4.70	6.25	6.80	0.017	0.013	100
TSNR4030S-1R0NT	1.0±30%	4.15	4.70	5.26	5.70	0.018	0.014	70
TSNR4030S-1R2NT	1.2±30%	3.82	4.20	5.80	6.30	0.020	0.015	80
TSNR4030S-1R5NT	1.5±30%	3.34	3.60	4.84	5.30	0.026	0.020	62
TSNR4030S-1R8NT	1.8±30%	3.20	3.30	5.40	5.80	0.033	0.025	60
TSNR4030S-2R2NT	2.2±30%	2.95	3.20	4.90	5.80	0.039	0.030	52
TSNR4030S-3R3MT	3.3±20%	2.40	2.60	3.30	3.60	0.052	0.040	38
TSNR4030S-3R6MT	3.6±20%	2.40	2.60	3.00	3.50	0.052	0.040	37
TSNR4030S-3R9MT	3.9±20%	2.10	2.30	3.00	3.30	0.074	0.057	32
TSNR4030S-4R3MT	4.3±20%	2.10	2.30	2.95	3.20	0.072	0.055	37
TSNR4030S-4R7MT	4.7±20%	2.00	2.30	2.90	3.20	0.078	0.060	31
TSNR4030S-5R6MT	5.6±20%	1.95	2.10	2.60	2.80	0.085	0.065	30
TSNR4030S-6R8MT	6.8±20%	1.60	1.70	2.75	3.00	0.117	0.090	24
TSNR4030S-7R5MT	7.5±20%	1.65	1.80	2.20	2.40	0.110	0.085	26
TSNR4030S-8R2MT	8.2±20%	1.60	1.70	2.10	2.30	0.117	0.090	26
TSNR4030S-100MT	10±20%	1.50	1.60	1.95	2.40	0.130	0.100	21
TSNR4030S-120MT	12±20%	1.30	1.40	1.70	1.80	0.175	0.135	18
TSNR4030S-150MT	15±20%	1.11	1.20	1.65	1.80	0.247	0.190	16
TSNR4030S-180MT	18±20%	1.10	1.20	1.40	1.50	0.260	0.200	10
TSNR4030S-220MT	22±20%	1.00	1.20	1.30	1.40	0.292	0.225	10
TSNR4030S-270MT	27±20%	0.90	1.05	1.15	1.35	0.338	0.260	10
TSNR4030S-330MT	33±20%	0.84	0.92	1.10	1.20	0.429	0.330	10
TSNR4030S-360MT	36±20%	0.83	0.91	1.05	1.10	0.436	0.335	9.8
TSNR4030S-390MT	39±20%	0.73	0.80	1.03	1.10	0.566	0.435	10
TSNR4030S-470MT	47±20%	0.72	0.80	0.95	1.00	0.579	0.445	8.4
TSNR4030S-510MT	51±20%	0.70	0.80	0.90	1.13	0.611	0.470	8.4
TSNR4030S-560MT	56±20%	0.65	0.71	0.85	0.94	0.722	0.555	8.4
TSNR4030S-620MT	62±20%	0.63	0.70	0.80	0.99	0.761	0.585	7

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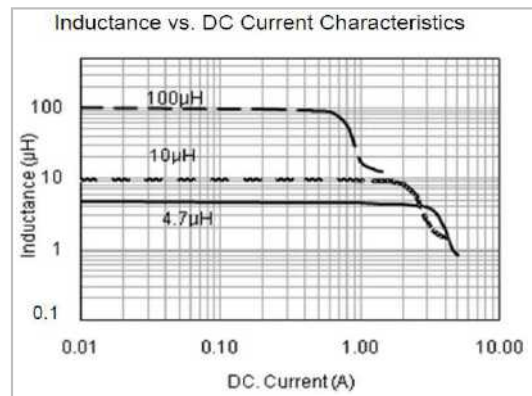
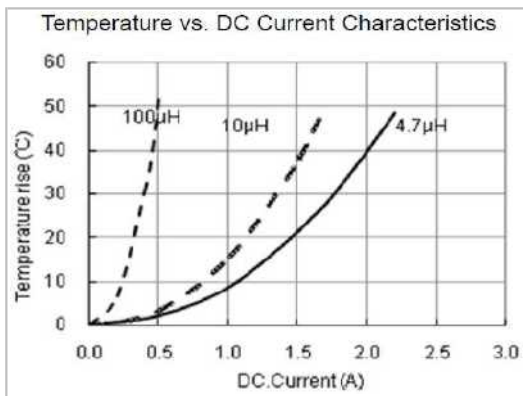
**Electrical Specification | TSNR4030S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR4030S-680MT	68 $\pm$ 20%	0.52	0.57	0.72	0.80	1.128	0.868	7
TSNR4030S-750MT	75 $\pm$ 20%	0.48	0.53	0.70	0.88	1.326	1.020	6.3
TSNR4030S-820MT	82 $\pm$ 20%	0.47	0.52	0.66	0.72	1.378	1.060	5.6
TSNR4030S-910MT	91 $\pm$ 20%	0.46	0.50	0.65	0.71	1.430	1.100	5.6
TSNR4030S-101MT	100 $\pm$ 20%	0.45	0.49	0.60	0.73	1.495	1.150	5.6
TSNR4030S-121MT	120 $\pm$ 20%	0.42	0.46	0.55	0.60	1.755	1.350	5.4
TSNR4030S-151MT	150 $\pm$ 20%	0.30	0.35	0.50	0.55	2.340	1.800	4
TSNR4030S-221MT	220 $\pm$ 20%	0.35	0.40	0.40	0.50	3.250	2.500	4.2
TSNR4030S-331MT	330 $\pm$ 20%	0.25	0.26	0.30	0.40	5.200	4.000	6.8
TSNR4030S-471MT	470 $\pm$ 20%	0.20	0.23	0.30	0.35	9.360	7.200	2
TSNR4030S-501MT	500 $\pm$ 20%	0.15	0.20	0.28	0.30	9.027	6.994	2
TSNR4030S-681MT	680 $\pm$ 20%	0.14	0.18	0.19	0.20	9.854	7.580	1.2

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}C$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR5012S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR5012S-R22NT	0.22 $\pm$ 30%	3.00	3.30	8.10	9.30	0.034	0.028	315
TSNR5012S-1R0NT	1.0 $\pm$ 30%	2.00	2.40	4.40	4.70	0.068	0.057	103
TSNR5012S-1R5NT	1.5 $\pm$ 30%	1.90	2.20	3.70	3.80	0.086	0.072	68
TSNR5012S-2R2NT	2.2 $\pm$ 30%	1.70	2.00	3.10	3.20	0.108	0.090	50
TSNR5012S-3R3NT	3.3 $\pm$ 30%	1.40	1.70	2.40	2.60	0.151	0.126	34
TSNR5012S-4R7NT	4.7 $\pm$ 30%	1.30	1.50	2.20	2.30	0.197	0.164	31
TSNR5012S-6R8MT	6.8 $\pm$ 20%	1.00	1.20	1.70	1.90	0.294	0.245	22
TSNR5012S-100MT	10 $\pm$ 20%	0.85	1.00	1.40	1.50	0.413	0.344	17
TSNR5012S-150MT	15 $\pm$ 20%	0.80	0.92	1.20	1.30	0.523	0.436	13
TSNR5012S-220MT	22 $\pm$ 20%	0.60	0.68	0.88	0.98	0.858	0.780	16

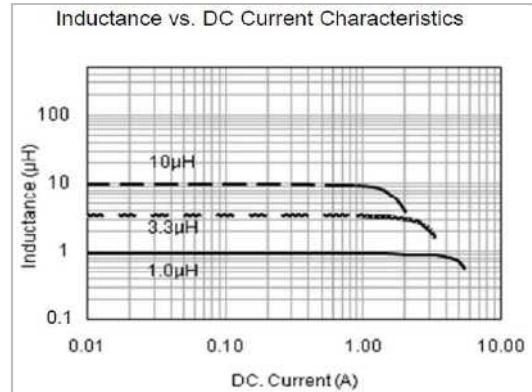
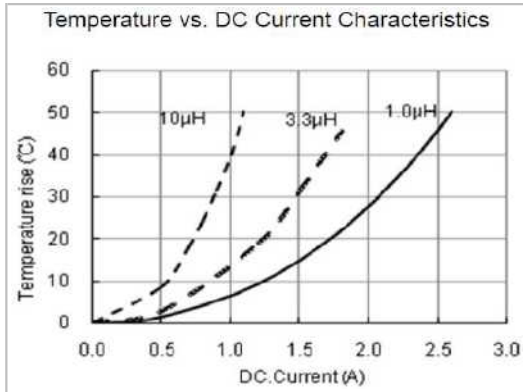
\* Custom design are available upon requested.

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1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.

2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}\text{C}$ ) from  $20^{\circ}\text{C}$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to  $20^{\circ}\text{C}$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR5020S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu\text{H}$ ]	Heat Rating current <sup>②</sup> I <sub>rms</sub> [ A ]		Saturation current <sup>③</sup> I <sub>sat</sub> [ A ]		DC Resistance <sup>④</sup> R <sub>DC</sub> [ $\Omega$ ] max.		Self resonant frequency S.R.F [ MHz ] Min.
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR5020S-R22NT	0.22±30%	5.30	6.00	9.00	12.00	0.011	0.009	280
TSNR5020S-R24NT	0.24±30%	5.30	6.00	8.00	10.00	0.011	0.009	248
TSNR5020S-R47NT	0.47±30%	4.60	5.00	6.15	6.70	0.017	0.013	160
TSNR5020S-R56NT	0.56±30%	3.80	4.20	8.50	9.60	0.022	0.017	137
TSNR5020S-R68NT	0.68±30%	4.00	4.40	5.50	6.00	0.022	0.017	120
TSNR5020S-R75NT	0.75±30%	4.00	4.40	5.50	6.00	0.022	0.017	117
TSNR5020S-1R0NT	1.0±30%	3.80	4.10	4.10	5.00	0.026	0.020	114
TSNR5020S-1R2NT	1.2±30%	3.55	3.90	4.50	5.00	0.029	0.022	83
TSNR5020S-1R5NT	1.5±30%	3.20	3.50	4.10	4.50	0.034	0.026	68
TSNR5020S-2R2NT	2.2±30%	2.90	3.10	3.20	4.00	0.042	0.032	57
TSNR5020S-2R7NT	2.7±30%	2.70	2.90	2.90	3.50	0.049	0.038	52
TSNR5020S-3R0NT	3.0±30%	2.70	2.90	2.55	2.80	0.049	0.038	49
TSNR5020S-3R3NT	3.3±30%	2.50	2.70	2.55	3.00	0.056	0.043	46
TSNR5020S-3R6NT	3.6±30%	2.50	2.70	2.80	3.00	0.056	0.043	43
TSNR5020S-3R9NT	3.9±30%	2.50	2.70	2.30	2.80	0.056	0.043	40
TSNR5020S-4R3MT	4.3±20%	2.20	2.40	2.50	3.00	0.074	0.057	37
TSNR5020S-4R7MT	4.7±20%	2.20	2.40	2.50	2.70	0.074	0.057	37
TSNR5020S-5R1MT	5.1±20%	2.05	2.20	2.25	2.60	0.083	0.064	32
TSNR5020S-5R6MT	5.6±20%	2.05	2.20	2.30	2.50	0.083	0.064	32
TSNR5020S-6R8MT	6.8±20%	1.80	1.90	2.05	2.20	0.108	0.083	30
TSNR5020S-7R5MT	7.5±20%	1.75	1.90	1.85	2.00	0.117	0.090	26
TSNR5020S-8R2MT	8.2±20%	1.65	1.80	1.85	2.00	0.127	0.098	26
TSNR5020S-9R1MT	9.1±20%	1.55	1.70	1.70	1.80	0.143	0.110	24
TSNR5020S-100MT	10±20%	1.55	1.70	1.70	1.80	0.140	0.110	24
TSNR5020S-120MT	12±20%	1.40	1.50	1.50	1.60	0.182	0.140	22
TSNR5020S-150MT	15±20%	1.25	1.30	1.35	1.40	0.215	0.165	20
TSNR5020S-180MT	18±20%	1.15	1.20	1.25	1.30	0.260	0.200	16
TSNR5020S-220MT	22±20%	1.10	1.20	1.15	1.20	0.294	0.226	14
TSNR5020S-330MT	33±20%	0.90	0.99	0.92	1.00	0.507	0.390	10
TSNR5020S-470MT	47±20%	0.77	0.84	0.77	0.84	0.680	0.523	7
TSNR5020S-560MT	56±20%	0.70	0.77	0.77	0.84	0.819	0.630	6

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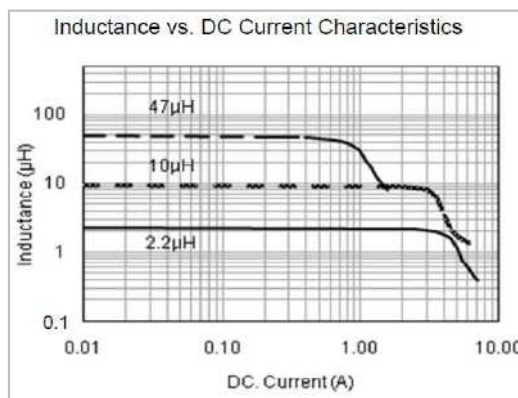
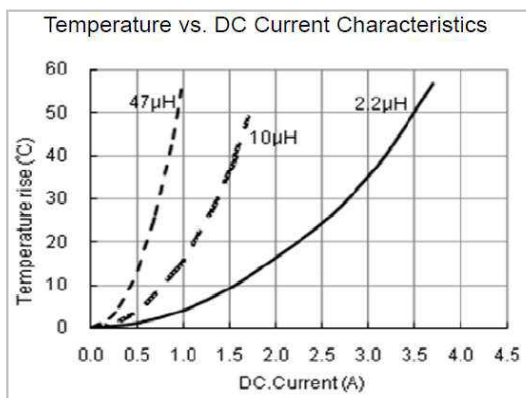
**Electrical Specification | TSNR5020S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR5020S-680MT	68 $\pm$ 20%	0.64	0.70	0.65	0.70	0.962	0.740	6
TSNR5020S-820MT	82 $\pm$ 20%	0.50	0.60	0.65	0.75	1.158	0.965	6
TSNR5020S-101MT	100 $\pm$ 20%	0.53	0.58	0.53	0.58	1.430	1.100	6
TSNR5020S-121MT	120 $\pm$ 20%	0.40	0.50	0.42	0.53	1.755	1.350	6
TSNR5020S-201MT	200 $\pm$ 20%	0.40	0.45	0.30	0.33	2.600	2.000	4.5

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}C$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR5040S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR5040S-1R0NT	1.0 $\pm$ 30%	4.90	5.10	7.35	8.20	0.016	0.012	117
TSNR5040S-1R2NT	1.2 $\pm$ 30%	4.15	4.30	6.50	7.10	0.021	0.016	110
TSNR5040S-1R5NT	1.5 $\pm$ 30%	4.30	4.80	6.30	7.30	0.020	0.015	86
TSNR5040S-1R8NT	1.8 $\pm$ 30%	4.15	4.30	5.50	6.40	0.021	0.016	55
TSNR5040S-2R2NT	2.2 $\pm$ 30%	3.80	4.30	4.90	5.60	0.025	0.019	50
TSNR5040S-2R7NT	2.7 $\pm$ 30%	3.60	4.10	4.30	5.10	0.029	0.022	37
TSNR5040S-3R0NT	3.0 $\pm$ 30%	3.60	4.20	4.15	4.80	0.029	0.022	37
TSNR5040S-3R3NT	3.3 $\pm$ 30%	3.40	3.90	3.95	4.60	0.031	0.024	32
TSNR5040S-3R6MT	3.6 $\pm$ 20%	3.30	3.70	3.80	4.40	0.034	0.026	30
TSNR5040S-3R9NT	3.9 $\pm$ 30%	3.20	3.70	3.55	4.20	0.035	0.027	29
TSNR5040S-4R7NT	4.7 $\pm$ 30%	3.00	3.30	3.50	3.90	0.039	0.030	28
TSNR5040S-5R6MT	5.6 $\pm$ 20%	2.80	3.10	3.00	4.10	0.046	0.035	27
TSNR5040S-6R8MT	6.8 $\pm$ 20%	2.50	2.80	2.90	3.50	0.056	0.043	21
TSNR5040S-8R2MT	8.2 $\pm$ 20%	2.30	2.60	2.70	3.00	0.062	0.048	20
TSNR5040S-100MT	10 $\pm$ 20%	2.10	2.40	2.35	2.90	0.083	0.064	18
TSNR5040S-150MT	15 $\pm$ 20%	2.00	2.10	2.00	2.30	0.112	0.086	13
TSNR5040S-220MT	22 $\pm$ 20%	1.50	1.60	1.60	1.90	0.168	0.129	11
TSNR5040S-330MT	33 $\pm$ 20%	1.20	1.40	1.30	1.50	0.244	0.188	9
TSNR5040S-470MT	47 $\pm$ 20%	1.00	1.10	1.10	1.30	0.354	0.272	7

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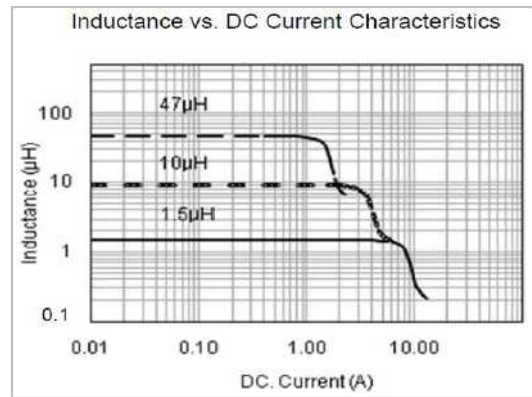
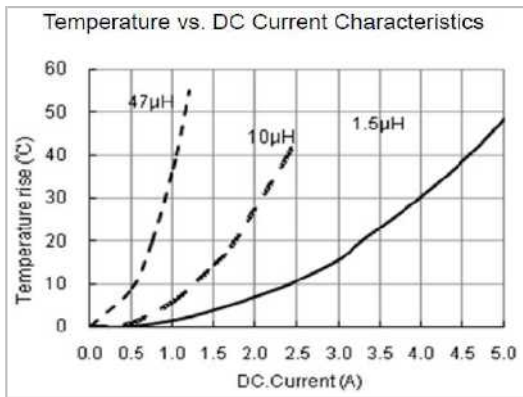
**Electrical Specification | TSNR5040S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR5040S-680MT	68 $\pm$ 20%	0.80	0.90	0.90	1.10	0.520	0.400	6
TSNR5040S-101MT	100 $\pm$ 20%	0.70	0.80	0.75	0.90	0.728	0.560	5
TSNR5040S-151MT	150 $\pm$ 20%	0.60	0.70	0.65	0.67	0.975	0.750	3.7
TSNR5040S-102MT	1000 $\pm$ 20%	0.20	0.23	0.21	0.25	7.800	6.000	1.3

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}\text{C}$ ) from 20 $^{\circ}\text{C}$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}\text{C}$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR6020S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR6020S-R50NT	0.5 $\pm$ 30%	4.00	5.00	4.50	6.00	0.018	0.014	120
TSNR6020S-R68NT	0.68 $\pm$ 30%	3.80	4.80	6.55	7.80	0.022	0.017	115
TSNR6020S-R82NT	0.82 $\pm$ 30%	3.80	4.80	5.30	6.30	0.022	0.017	110
TSNR6020S-1R0NT	1.0 $\pm$ 30%	3.50	4.40	4.15	5.00	0.020	0.020	100
TSNR6020S-1R2NT	1.2 $\pm$ 30%	3.20	4.00	5.90	7.00	0.029	0.022	88
TSNR6020S-1R5NT	1.5 $\pm$ 30%	3.20	4.00	4.25	5.10	0.029	0.022	79
TSNR6020S-1R8NT	1.8 $\pm$ 30%	2.75	3.50	4.85	5.80	0.036	0.028	68
TSNR6020S-2R0NT	2.0 $\pm$ 30%	2.60	3.30	4.10	4.90	0.046	0.035	65
TSNR6020S-2R2NT	2.2 $\pm$ 30%	2.75	3.50	3.75	4.50	0.036	0.028	61
TSNR6020S-2R7NT	2.7 $\pm$ 30%	2.60	3.30	3.90	4.60	0.046	0.035	56
TSNR6020S-3R3NT	3.3 $\pm$ 30%	2.60	3.30	3.15	3.70	0.046	0.035	51
TSNR6020S-3R9NT	3.9 $\pm$ 30%	2.10	2.60	3.25	3.90	0.064	0.049	45
TSNR6020S-4R3NT	4.3 $\pm$ 30%	2.10	2.60	2.70	3.20	0.064	0.049	44
TSNR6020S-4R7NT	4.7 $\pm$ 30%	2.00	2.50	3.00	3.60	0.075	0.058	41
TSNR6020S-5R6NT	5.6 $\pm$ 30%	1.90	2.40	2.40	2.90	0.075	0.058	36
TSNR6020S-6R2NT	6.2 $\pm$ 30%	1.80	2.30	2.30	2.70	0.103	0.079	31
TSNR6020S-6R8NT	6.8 $\pm$ 30%	1.80	2.30	2.20	2.60	0.103	0.079	31
TSNR6020S-8R2NT	8.2 $\pm$ 30%	1.40	1.80	2.10	2.50	0.137	0.105	27
TSNR6020S-100MT	10 $\pm$ 20%	1.40	1.80	1.75	2.10	0.137	0.105	27
TSNR6020S-120MT	12 $\pm$ 20%	1.30	1.60	1.45	1.70	0.156	0.120	25

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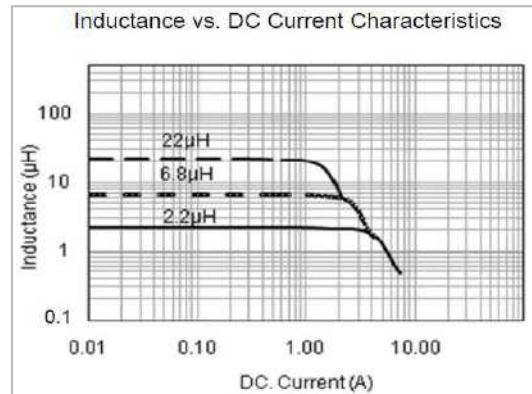
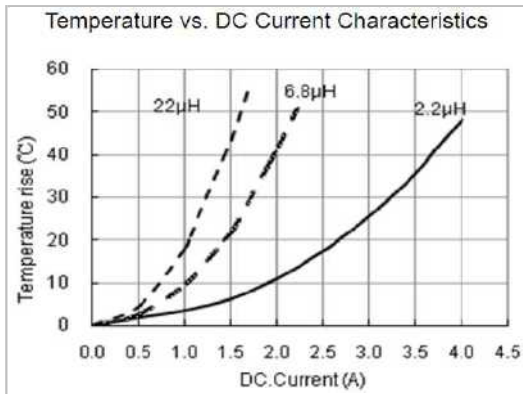
**Electrical Specification | TSNR6020S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR6020S-150MT	15 $\pm$ 20%	1.20	1.50	1.20	1.40	0.189	0.145	21
TSNR6020S-180MT	18 $\pm$ 20%	1.08	1.40	1.20	1.40	0.234	0.180	18
TSNR6020S-220MT	22 $\pm$ 20%	1.00	1.30	1.05	1.20	0.265	0.204	16
TSNR6020S-330MT	33 $\pm$ 20%	0.84	1.05	0.95	1.10	0.390	0.300	11
TSNR6020S-470MT	47 $\pm$ 20%	0.80	0.90	0.70	0.90	0.559	0.430	10
TSNR6020S-331MT	330 $\pm$ 20%	0.33	0.39	0.27	0.33	3.419	2.630	3

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}C$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR6028S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR6028S-R82NT	0.82 $\pm$ 30%	5.20	6.00	6.50	9.00	0.016	0.012	97
TSNR6028S-1R0NT	1.0 $\pm$ 30%	5.20	5.70	5.75	7.00	0.013	0.010	70
TSNR6028S-1R2NT	1.2 $\pm$ 30%	4.58	5.00	6.40	7.50	0.017	0.013	69
TSNR6028S-1R5NT	1.5 $\pm$ 30%	4.58	5.00	6.00	6.60	0.017	0.013	65
TSNR6028S-2R2NT	2.2 $\pm$ 30%	3.75	4.10	5.10	5.60	0.026	0.020	48
TSNR6028S-2R7NT	2.7 $\pm$ 30%	3.75	4.10	3.80	4.10	0.026	0.020	48
TSNR6028S-3R3NT	3.3 $\pm$ 30%	3.48	3.80	4.15	4.50	0.033	0.025	41
TSNR6028S-4R7NT	4.7 $\pm$ 30%	3.08	3.40	3.00	3.30	0.039	0.030	35
TSNR6028S-5R1NT	5.1 $\pm$ 30%	2.60	2.80	3.20	3.50	0.056	0.043	32
TSNR6028S-6R2MT	6.2 $\pm$ 20%	2.40	2.60	3.05	3.30	0.061	0.047	30
TSNR6028S-6R8MT	6.8 $\pm$ 20%	2.40	2.60	2.60	3.00	0.061	0.047	27
TSNR6028S-8R2MT	8.2 $\pm$ 20%	2.25	2.50	2.30	2.50	0.072	0.055	24
TSNR6028S-9R1MT	9.1 $\pm$ 20%	2.15	2.40	2.55	2.80	0.096	0.074	24
TSNR6028S-100MT	10 $\pm$ 20%	1.95	2.40	2.04	2.50	0.094	0.072	23
TSNR6028S-120MT	12 $\pm$ 20%	1.85	2.00	1.80	2.00	0.104	0.080	18
TSNR6028S-150MT	15 $\pm$ 20%	1.45	1.60	1.75	1.90	0.163	0.125	18
TSNR6028S-180MT	18 $\pm$ 20%	1.45	1.60	1.52	1.80	0.156	0.120	15
TSNR6028S-220MT	22 $\pm$ 20%	1.40	1.60	1.45	1.80	0.182	0.140	14

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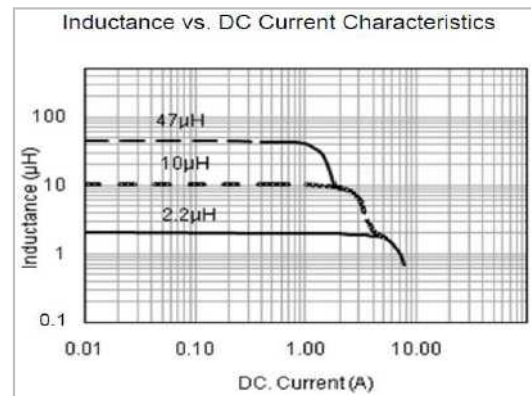
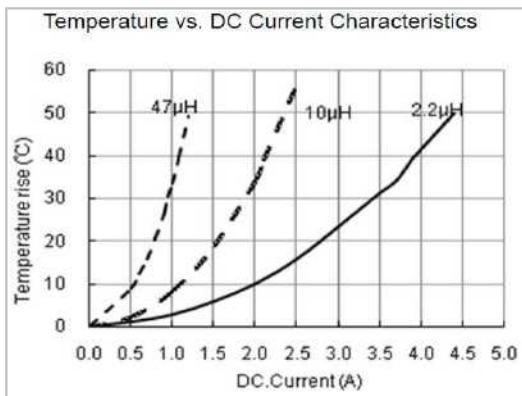
**Electrical Specification | TSNR6028S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR6028S-270MT	27 $\pm$ 20%	1.32	1.40	1.50	1.60	0.202	0.155	13
TSNR6028S-330MT	33 $\pm$ 20%	1.22	1.30	1.35	1.50	0.241	0.185	12
TSNR6028S-360MT	36 $\pm$ 20%	1.13	1.20	1.25	1.40	0.280	0.215	11
TSNR6028S-390MT	39 $\pm$ 20%	1.10	1.20	1.25	1.40	0.293	0.225	11
TSNR6028S-470MT	47 $\pm$ 20%	1.06	1.10	1.15	1.30	0.410	0.315	9.5
TSNR6028S-560MT	56 $\pm$ 20%	0.89	1.00	1.05	1.20	0.449	0.345	8.2
TSNR6028S-680MT	68 $\pm$ 20%	0.86	0.95	0.80	0.95	0.468	0.360	7.7
TSNR6028S-750MT	75 $\pm$ 20%	0.81	0.90	0.90	0.99	0.533	0.410	7.7
TSNR6028S-820MT	82 $\pm$ 20%	0.70	0.77	0.80	0.88	0.650	0.500	7.7
TSNR6028S-101MT	100 $\pm$ 20%	0.70	0.77	0.65	0.71	0.650	0.500	7.1
TSNR6028S-401MT	400 $\pm$ 20%	0.40	0.45	0.30	0.33	2.808	2.160	2.8
TSNR6028S-102MT	1000 $\pm$ 20%	0.23	0.26	0.18	0.22	7.540	5.800	1.5

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}C$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR6040S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR6040S-1R0MT	1.0 $\pm$ 20%	6.30	7.20	7.85	9.05	0.001	0.008	97
TSNR6040S-100MT	10 $\pm$ 20%	2.45	2.80	3.20	3.50	0.062	0.048	16
TSNR6040S-120MT	12 $\pm$ 20%	2.20	2.55	2.80	3.25	0.075	0.058	14
TSNR6040S-150MT	15 $\pm$ 20%	2.05	2.35	2.50	3.00	0.088	0.068	13
TSNR6040S-220MT	22 $\pm$ 20%	1.80	2.05	2.05	2.50	0.116	0.089	10
TSNR6040S-330MT	33 $\pm$ 20%	1.45	1.65	1.65	2.00	0.178	0.137	9.9
TSNR6040S-680MT	68 $\pm$ 20%	0.95	1.10	1.15	1.40	0.370	0.285	5.6
TSNR6040S-471MT	470 $\pm$ 20%	0.47	0.55	0.42	0.50	2.500	1.790	2.0

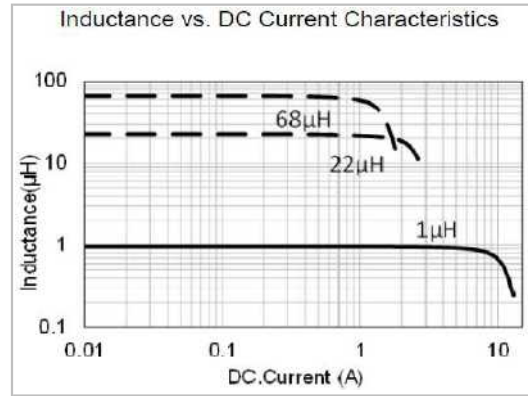
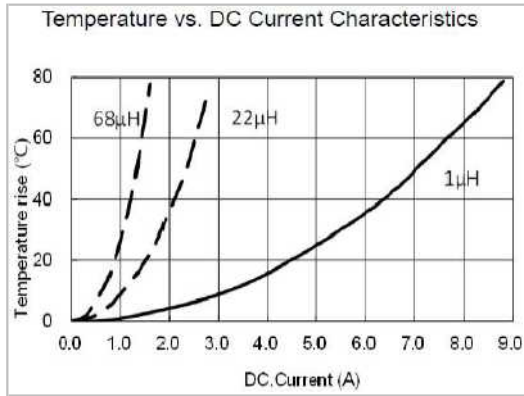
\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.

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4. All test data is referenced to 20°C ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR6045S Series**

Part Number	Inductance <sup>①</sup> L [ µ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		I <sub>rms</sub> [ A ]		I <sub>sat</sub> [ A ]		R <sub>DC</sub> [ Ω ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR6045S-R47NT	0.47±30%	6.50	6.60	15.00	16.50	0.008	0.006	155
TSNR6045S-R56NT	0.56±30%	6.50	7.60	142.00	14.00	0.008	0.006	142
TSNR6045S-R68NT	0.68±30%	5.70	6.50	11.00	12.00	0.008	0.006	99
TSNR6045S-R82NT	0.82±30%	5.90	6.50	10.35	11.00	0.010	0.008	140
TSNR6045S-1R0NT	1.0±30%	5.14	5.60	9.85	10.00	0.014	0.011	100
TSNR6045S-1R2NT	1.2±30%	5.40	5.90	8.35	9.10	0.013	0.010	100
TSNR6045S-1R3NT	1.3±30%	5.40	5.90	8.35	9.10	0.013	0.010	100
TSNR6045S-1R5NT	1.5±30%	4.95	5.40	8.80	9.70	0.016	0.012	65
TSNR6045S-1R8NT	1.8±30%	4.95	5.40	7.60	8.40	0.016	0.012	74
TSNR6045S-2R2NT	2.2±30%	4.60	5.00	6.75	7.40	0.018	0.014	52
TSNR6045S-2R3NT	2.3±30%	3.50	3.80	6.00	6.60	0.027	0.021	60
TSNR6045S-2R7NT	2.7±30%	4.30	4.70	5.75	6.30	0.020	0.015	38
TSNR6045S-3R0NT	3.0±30%	3.80	4.20	5.60	6.20	0.026	0.020	35
TSNR6045S-3R3NT	3.3±30%	3.70	4.00	5.90	6.20	0.027	0.021	32
TSNR6045S-3R6NT	3.6±30%	3.70	4.00	5.25	5.70	0.027	0.021	28
TSNR6045S-4R3MT	4.3±20%	3.50	3.80	4.45	4.90	0.030	0.023	23
TSNR6045S-4R5MT	4.5±20%	3.30	3.60	4.97	5.50	0.034	0.026	24
TSNR6045S-4R7MT	4.7±20%	3.30	3.60	4.97	5.50	0.034	0.026	24
TSNR6045S-5R1MT	5.1±20%	3.30	3.60	4.40	4.80	0.034	0.026	23
TSNR6045S-5R6MT	5.6±20%	3.15	3.40	4.15	4.60	0.038	0.029	23
TSNR6045S-6R2MT	6.2±20%	3.00	3.30	4.43	4.80	0.040	0.031	26
TSNR6045S-6R3MT	6.3±20%	3.00	3.30	4.43	4.70	0.040	0.031	26
TSNR6045S-6R8MT	6.8±20%	3.00	3.30	3.90	4.30	0.040	0.031	20
TSNR6045S-7R5MT	7.5±20%	2.90	3.20	3.50	3.80	0.044	0.034	18
TSNR6045S-8R2MT	8.2±20%	2.60	2.80	3.90	4.30	0.056	0.043	21
TSNR6045S-9R1MT	9.1±20%	2.60	2.80	3.35	3.70	0.056	0.043	17
TSNR6045S-100MT	10±20%	2.45	2.70	3.20	3.50	0.062	0.048	15
TSNR6045S-120MT	12±20%	2.20	2.40	2.80	3.00	0.075	0.058	13
TSNR6045S-150MT	15±20%	2.05	2.20	2.50	2.70	0.088	0.068	12
TSNR6045S-180MT	18±20%	1.85	2.00	2.20	2.40	0.105	0.081	10
TSNR6045S-220MT	22±20%	1.80	2.00	2.05	2.20	0.116	0.089	10
TSNR6045S-270MT	27±20%	1.65	1.80	1.90	2.10	0.133	0.102	9.2

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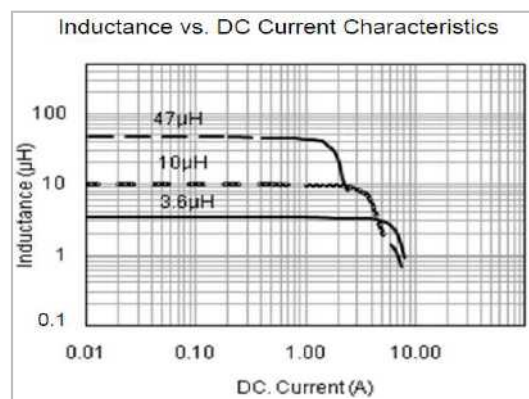
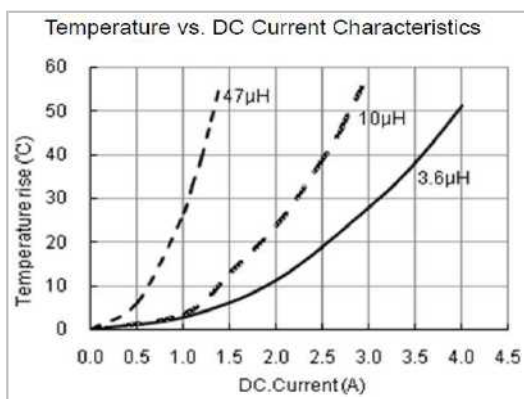
**Electrical Specification | TSNR6045S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR6045S-300MT	30 $\pm$ 20%	1.50	1.60	1.70	1.80	0.172	0.132	7.8
TSNR6045S-330MT	33 $\pm$ 20%	1.45	1.60	1.65	1.80	0.178	0.137	7.8
TSNR6045S-360MT	36 $\pm$ 20%	1.40	1.50	1.62	1.80	0.225	0.173	7.8
TSNR6045S-390MT	39 $\pm$ 20%	1.25	1.40	1.50	1.60	0.234	0.180	7.8
TSNR6045S-430MT	43 $\pm$ 20%	1.20	1.30	1.63	1.80	0.260	0.200	7.7
TSNR6045S-470MT	47 $\pm$ 20%	1.20	1.30	1.40	1.50	0.260	0.200	6.4
TSNR6045S-510MT	51 $\pm$ 20%	1.15	1.20	1.35	1.50	0.269	0.207	6.4
TSNR6045S-560MT	56 $\pm$ 20%	1.10	1.20	1.30	1.40	0.287	0.221	6.4
TSNR6045S-620MT	62 $\pm$ 20%	1.10	1.20	1.25	1.40	0.306	0.235	6.4
TSNR6045S-680MT	68 $\pm$ 20%	1.00	1.10	1.20	1.30	0.376	0.289	6.4
TSNR6045S-750MT	75 $\pm$ 20%	0.95	1.00	1.15	1.20	0.397	0.305	5
TSNR6045S-820MT	82 $\pm$ 20%	0.90	0.99	1.05	1.10	0.443	0.341	4.9
TSNR6045S-910MT	91 $\pm$ 20%	0.85	0.94	1.00	1.10	0.467	0.359	4.9
TSNR6045S-101MT	100 $\pm$ 20%	0.80	0.88	0.95	1.00	0.563	0.433	4.2
TSNR6045S-121MT	120 $\pm$ 20%	0.77	0.85	0.85	0.94	0.629	0.484	4.2
TSNR6045S-151MT	150 $\pm$ 20%	0.70	0.77	0.80	0.88	0.754	0.580	4.2
TSNR6045S-221MT	220 $\pm$ 20%	0.59	0.65	0.70	0.77	1.084	0.834	3.5
TSNR6045S-331MT	330 $\pm$ 20%	0.57	0.63	0.57	0.63	1.651	1.270	2.8
TSNR6045S-471MT	470 $\pm$ 20%	0.42	0.48	0.50	0.56	2.340	1.800	2.0
TSNR6045S-681MT	680 $\pm$ 20%	0.33	0.38	0.42	0.46	3.250	2.500	1.7
TSNR6045S-102MT	1000 $\pm$ 20%	0.30	0.35	0.30	0.35	5.850	4.500	0.5
TSNR6045S-152MT	1500 $\pm$ 20%	0.21	0.24	0.24	0.27	8.450	6.500	0.8

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}C$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**




**Electrical Specification | TSNR8040S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR8040S-R82NT	0.82 $\pm$ 30%	6.30	6.90	13.80	16.00	0.010	0.008	94
TSNR8040S-1R0NT	1.0 $\pm$ 30%	6.30	6.90	9.85	14.00	0.010	0.008	89

Continued on the following page

## Electrical Specification | TSNR8040S Series

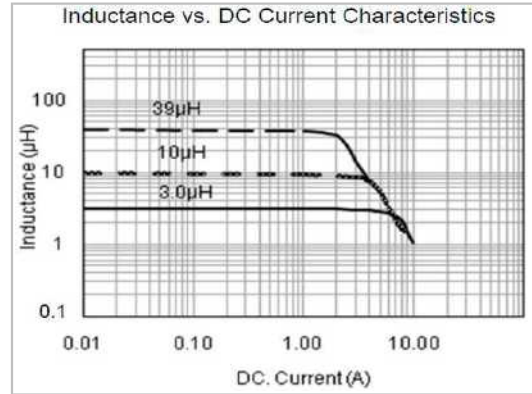
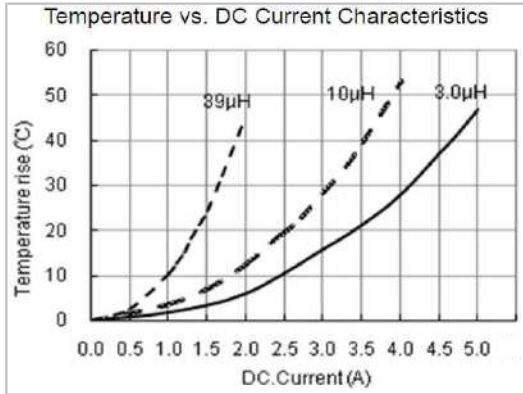
Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR8040S-1R2NT	1.2 $\pm$ 30%	5.65	6.20	10.00	14.00	0.013	0.010	59
TSNR8040S-1R5NT	1.5 $\pm$ 30%	5.65	6.20	8.15	11.00	0.013	0.010	67
TSNR8040S-2R0NT	2.0 $\pm$ 30%	5.15	5.60	9.25	10.00	0.016	0.012	43
TSNR8040S-2R2NT	2.2 $\pm$ 30%	5.15	5.60	7.10	8.00	0.016	0.012	41
TSNR8040S-3R0NT	3.0 $\pm$ 30%	4.70	5.20	6.10	7.00	0.018	0.014	32
TSNR8040S-3R3NT	3.3 $\pm$ 30%	4.40	4.80	6.50	7.00	0.022	0.017	27
TSNR8040S-3R6NT	3.6 $\pm$ 30%	4.35	4.80	7.52	8.50	0.022	0.017	30
TSNR8040S-3R9NT	3.9 $\pm$ 30%	4.35	4.80	5.75	6.50	0.022	0.017	26
TSNR8040S-4R7NT	4.7 $\pm$ 30%	4.10	4.50	5.90	6.50	0.025	0.019	24
TSNR8040S-5R1NT	5.1 $\pm$ 30%	4.05	4.40	4.70	5.40	0.025	0.019	22
TSNR8040S-5R6NT	5.6 $\pm$ 30%	3.85	4.20	6.00	6.90	0.027	0.021	24
TSNR8040S-6R2NT	6.2 $\pm$ 30%	3.85	4.20	4.45	5.10	0.027	0.021	20
TSNR8040S-6R8MT	6.8 $\pm$ 20%	3.60	4.00	4.55	5.20	0.031	0.024	20
TSNR8040S-8R2MT	8.2 $\pm$ 20%	3.45	3.80	4.20	4.80	0.034	0.026	17
TSNR8040S-100MT	10 $\pm$ 20%	3.30	3.60	3.60	4.10	0.038	0.029	15
TSNR8040S-120MT	12 $\pm$ 20%	2.80	3.00	3.50	4.00	0.053	0.041	13
TSNR8040S-150MT	15 $\pm$ 20%	2.60	2.80	2.95	3.40	0.061	0.047	12
TSNR8040S-180MT	180 $\pm$ 20%	2.40	2.60	2.70	3.10	0.069	0.053	11
TSNR8040S-220MT	22 $\pm$ 20%	2.10	2.30	2.40	2.70	0.090	0.069	9.5
TSNR8040S-270MT	27 $\pm$ 20%	2.00	2.20	2.15	2.50	0.101	0.078	9.2
TSNR8040S-330MT	33 $\pm$ 20%	1.80	2.00	2.05	2.40	0.126	0.097	7.8
TSNR8040S-360MT	36 $\pm$ 20%	1.75	1.90	2.00	2.30	0.133	0.102	7.8
TSNR8040S-390MT	39 $\pm$ 20%	1.70	1.90	1.95	2.20	0.139	0.107	7.8
TSNR8040S-430MT	43 $\pm$ 20%	1.65	1.80	1.90	2.20	0.147	0.113	7.8
TSNR8040S-470MT	47 $\pm$ 20%	1.55	1.70	1.75	2.00	0.177	0.136	6.4
TSNR8040S-510MT	51 $\pm$ 20%	1.50	1.60	1.70	1.90	0.185	0.142	6.4
TSNR8040S-560MT	56 $\pm$ 20%	1.45	1.60	1.55	1.70	0.192	0.148	6.4
TSNR8040S-620MT	62 $\pm$ 20%	1.30	1.40	1.50	1.60	0.237	0.182	6.4
TSNR8040S-680MT	68 $\pm$ 20%	1.25	1.40	1.45	1.60	0.255	0.196	4.9
TSNR8040S-750MT	75 $\pm$ 20%	1.20	1.30	1.35	1.50	0.274	0.211	4.9
TSNR8040S-820MT	82 $\pm$ 20%	1.15	1.20	1.30	1.40	0.293	0.225	5.9
TSNR8040S-910MT	91 $\pm$ 20%	1.05	1.10	1.20	1.30	0.354	0.272	4.9
TSNR8040S-101MT	100 $\pm$ 20%	1.00	1.10	1.15	1.30	0.377	0.299	4.2
TSNR8040S-121MT	120 $\pm$ 20%	0.95	1.00	1.05	1.10	0.434	0.334	3.5
TSNR8040S-151MT	150 $\pm$ 20%	0.85	0.94	1.10	1.20	0.533	0.410	3.5
TSNR8040S-181MT	180 $\pm$ 20%	0.83	0.92	0.95	1.15	0.676	0.520	3.5
TSNR8040S-221MT	220 $\pm$ 20%	0.80	0.88	0.85	0.94	0.779	0.599	3.5
TSNR8040S-331MT	330 $\pm$ 20%	0.64	0.70	0.68	0.75	1.156	0.889	2.8
TSNR8040S-471MT	470 $\pm$ 20%	0.50	0.60	0.60	0.70	1.625	1.260	2.1
TSNR8040S-681MT	680 $\pm$ 20%	0.45	0.50	0.50	0.60	2.652	2.040	1.7
TSNR8040S-102MT	1000 $\pm$ 20%	0.35	0.40	0.40	0.50	3.640	2.800	1.4
TSNR8040S-152MT	1500 $\pm$ 20%	0.26	0.27	0.32	0.38	6.500	5.000	1.0

Continued on the following page 

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}\text{C}$ ) from  $20^{\circ}\text{C}$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to  $20^{\circ}\text{C}$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



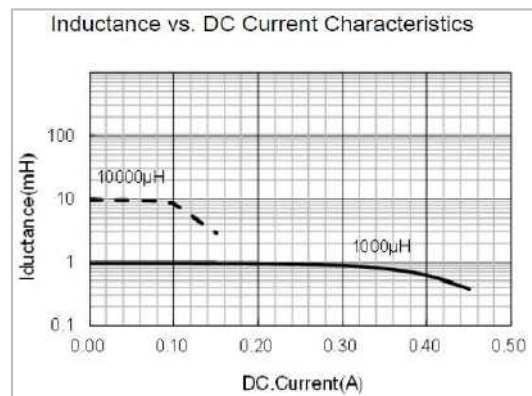
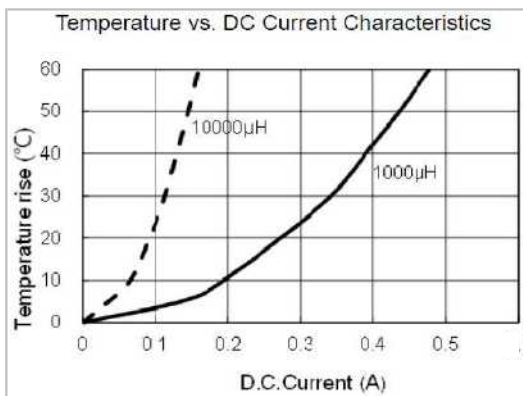
**Electrical Specification | TSNR8050S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu\text{H}$ ]	Heat Rating current <sup>②</sup> I <sub>rms</sub> [ A ]		Saturation current <sup>③</sup> I <sub>sat</sub> [ A ]		DC Resistance <sup>④</sup> R <sub>DC</sub> [ $\Omega$ ] max.		Self resonant frequency S.R.F [ MHz ] Min.
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR8050S-102MT	1000±20%	0.33	0.35	0.32	0.35	2.520	2.100	1.5
TSNR8050S-103MT	10000±20%	0.11	0.13	0.09	0.10	22.80	19.00	0.35

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}\text{C}$ ) from  $20^{\circ}\text{C}$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to  $20^{\circ}\text{C}$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



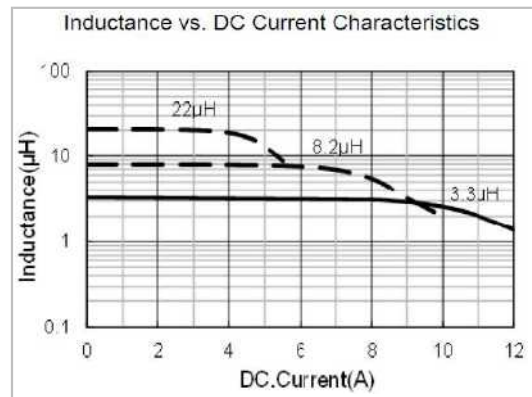
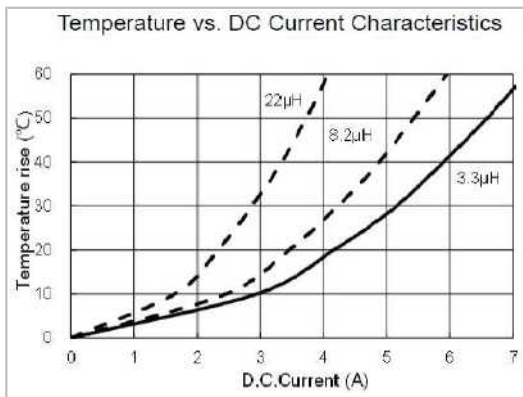
**Electrical Specification | TSNR8065S Series**

Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR8065S-1R0MT	1.0 $\pm$ 20%	7.00	8.00	20.00	22.00	0.011	0.008	96
TSNR8065S-3R3MT	3.3 $\pm$ 20%	5.10	5.90	9.50	10.00	0.018	0.015	27
TSNR8065S-4R7MT	4.7 $\pm$ 20%	4.70	5.40	8.50	9.50	0.022	0.018	18
TSNR8065S-5R6MT	5.6 $\pm$ 20%	4.50	5.20	8.00	9.00	0.026	0.022	17
TSNR8065S-6R8MT	6.8 $\pm$ 20%	4.50	5.20	7.50	8.00	0.026	0.022	16
TSNR8065S-8R2MT	8.2 $\pm$ 20%	4.20	4.80	7.00	7.70	0.031	0.026	15
TSNR8065S-100MT	10 $\pm$ 20%	3.20	3.70	8.00	8.90	0.044	0.037	13
TSNR8065S-220MT	22 $\pm$ 20%	2.85	3.30	4.30	4.80	0.065	0.054	8
TSNR8065S-431MT	430 $\pm$ 20%	0.61	0.69	0.95	1.05	1.200	1.000	1.5

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}C$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

**Typical Electrical Characteristics:**



**Electrical Specification | TSNR1050S Series**

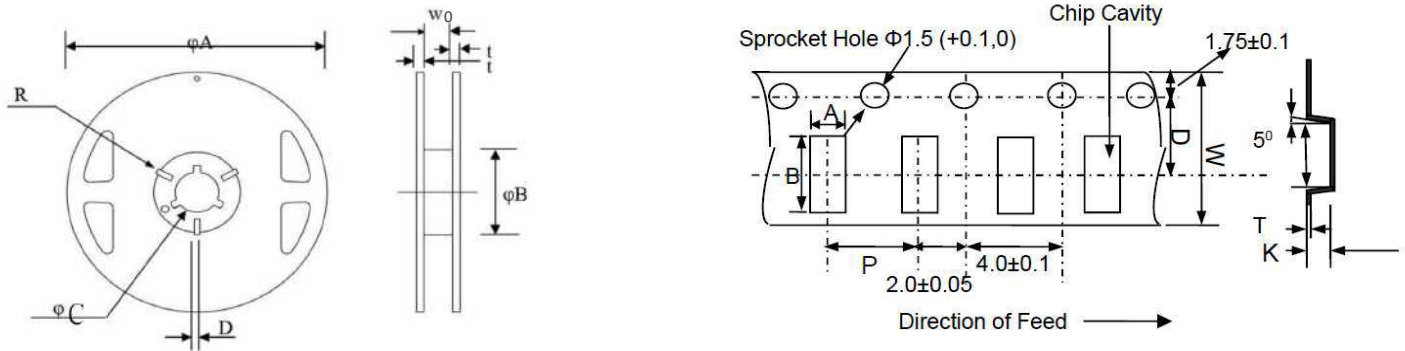
Part Number	Inductance <sup>①</sup> L [ $\mu$ H ]	Heat Rating current <sup>②</sup>		Saturation current <sup>③</sup>		DC Resistance <sup>④</sup>		Self resonant frequency S.R.F [ MHz ] Min.
		$I_{rms}$ [ A ]		$I_{sat}$ [ A ]		$R_{DC}$ [ $\Omega$ ] max.		
		Max.	Typ.	Max.	Typ.	Max.	Typ.	
TSNR1050S-330MT	33 $\pm$ 20%	3.50		5.20		71.00		12
TSNR1050S-470MT	47 $\pm$ 20%	2.80		4.00		112.00		10

\* Custom design are available upon requested.

1. Inductance measured at: 100kHz, 1Vrms, 0Adc, on an Agilent/HP4284A LCR meter or equivalent.
2. Heat rating current : DC current that causes the temperature rise ( $\Delta t=40^{\circ}C$ ) from 20 $^{\circ}C$  ambient.
3. Isat current : DC current at which the inductance drops approximate 30% from its value without current.
4. All test data is referenced to 20 $^{\circ}C$  ambient.
5. Rated current: Isat or Irms, whichever is smaller.

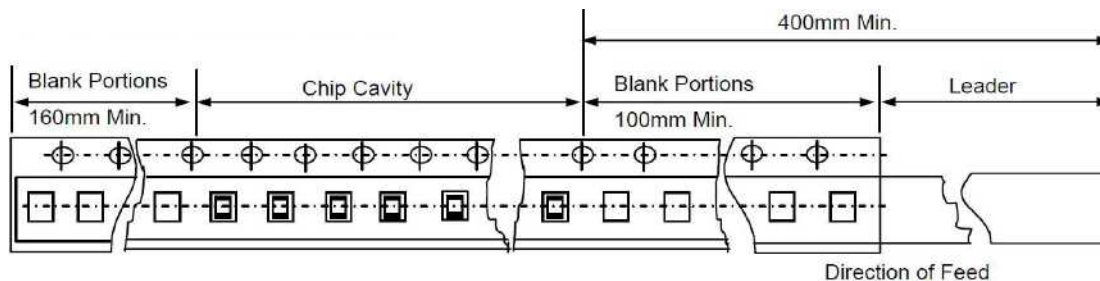
**Packaging:**

◆ Reel & Tape Dimensions [mm]



Part number	A	B	W0	A	B	D	P	K	W	Packaging Quantity (PCS / Reel)
TSNR2510	Ø178 ( 7")	Ø 60	8.4	2.35	2.65	3.50	4.0	1.2	8.0	2000
TSNR2512	Ø178 ( 7")	Ø 60	8.4	2.35	2.65	3.50	4.0	1.4	8.0	2000
TSNR3010	Ø178 ( 7")	Ø 60	8.4	3.30	3.30	3.50	4.0	1.4	8.0	2000
TSNR3012	Ø178 ( 7")	Ø 60	8.4	3.30	3.30	3.50	4.0	1.6	8.0	2000
TSNR3015	Ø178 ( 7")	Ø 60	8.4	3.30	3.30	3.50	4.0	1.9	8.0	2000
TSNR4010	Ø330 ( 13")	Ø 100	12.8	4.30	4.30	5.50	8.0	1.4	12.0	5000
TSNR4012	Ø330 ( 13")	Ø 100	12.8	4.30	4.30	5.50	8.0	1.4	12.0	4500
TSNR4018	Ø330 ( 13")	Ø 100	12.8	4.30	4.30	5.50	8.0	2.1	12.0	3000
TSNR4020	Ø330 ( 13")	Ø 100	12.8	4.30	4.30	5.50	8.0	2.4	12.0	3000
TSNR4026	Ø330 ( 13")	Ø 100	12.8	4.30	4.30	5.50	8.0	2.8	12.0	2500
TSNR4030	Ø330 ( 13")	Ø 100	12.8	4.30	4.30	5.50	8.0	3.2	12.0	2000
TSNR5012	Ø330 ( 13")	Ø 100	12.8	5.30	5.30	5.50	8.0	1.4	12.0	4500
TSNR5020	Ø330 ( 13")	Ø 100	12.8	5.40	5.40	5.50	8.0	2.2	12.0	2500
TSNR5040	Ø330 ( 13")	Ø 100	12.8	5.30	5.30	5.50	8.0	4.2	12.0	1500
TSNR6020	Ø330 ( 13")	Ø 100	16.5	6.30	6.30	7.50	8.0	2.5	16.0	2500
TSNR6028	Ø330 ( 13")	Ø 100	16.5	6.30	6.30	7.50	8.0	3.3	16.0	2000
TSNR6040	Ø330 ( 13")	Ø 100	16.5	6.30	6.30	7.50	8.0	4.7	16.0	1500
TSNR6045	Ø330 ( 13")	Ø 100	16.5	6.30	6.30	7.50	8.0	4.7	16.0	1500
TSNR8040	Ø330 ( 13")	Ø 100	16.5	8.35	8.35	7.50	12.0	4.5	16.0	1000
TSNR8050	Ø330 ( 13")	Ø 100	16.5	8.35	8.35	7.50	12.0	5.2	16.0	1000
TSNR8065	Ø330 ( 13")	Ø 100	16.5	8.35	8.35	7.50	12.0	6.7	16.0	700
TSNR1050	Ø330 ( 13")	Ø 100	24.5	11.2	11.20	7.5	8.0	5.4	24.0	700

◆ Leader and Blank Portion



◆ Cover Tape Peel Strength

The force for tearing off 8mm cover tape is 10gf to 100gf and 10gf to 130gf for 12mm to 56mm cover tape in the arrow direction at the following conditions: Temperature: +5 to 35°C, Humidity: 45 to 85%, Atmospheric pressure: 860 to 1060 hpa.

