

# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

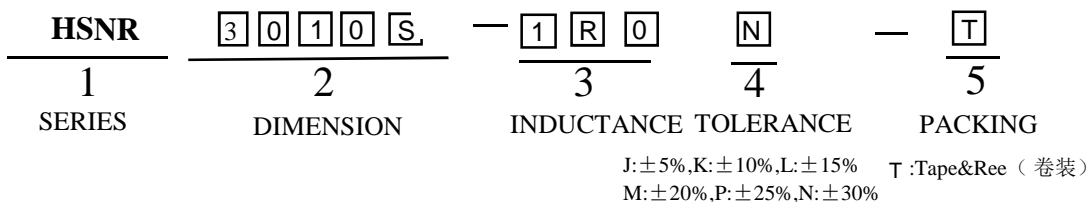
### 1. FEATURES:

- (1) Magnetic resin shielded construction reduces buzz noise to ultra-low levels .
- (2) Metalization on ferrite core results in excellent shock resistance and damage-free durability.
- (3) Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference(EMI) .
- (4) 30% Higher corrent rating than conventional inductors of equal size.
- (5) Take up less PCB real estate and save more power.

### 2. APPLICATIONS:

- (1) LED Lighting.
- (2) Mobile devices with multifunction such as adding color TV and camera.
- (3) Flat-screen TVs, blue-ray disc recorders, set top boxes.
- (3) Notebooks, desktop computers, servers, graphic cards.
- (4) Portable gaming devices, personal navigation systems, personal multimedia devices.
- (5) Automotive systems.
- (6) Tecomm base stations.

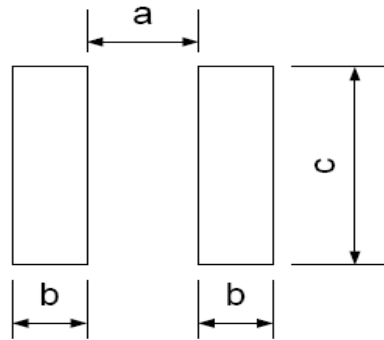
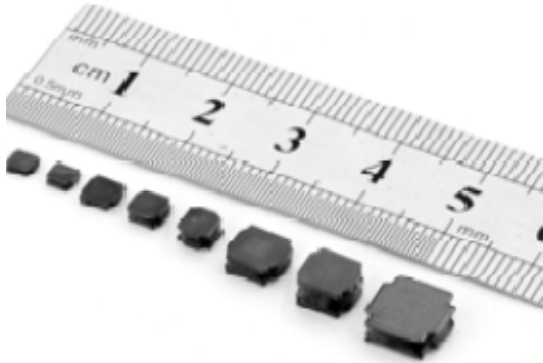
### 3. PART NUMBER SYSTEM:



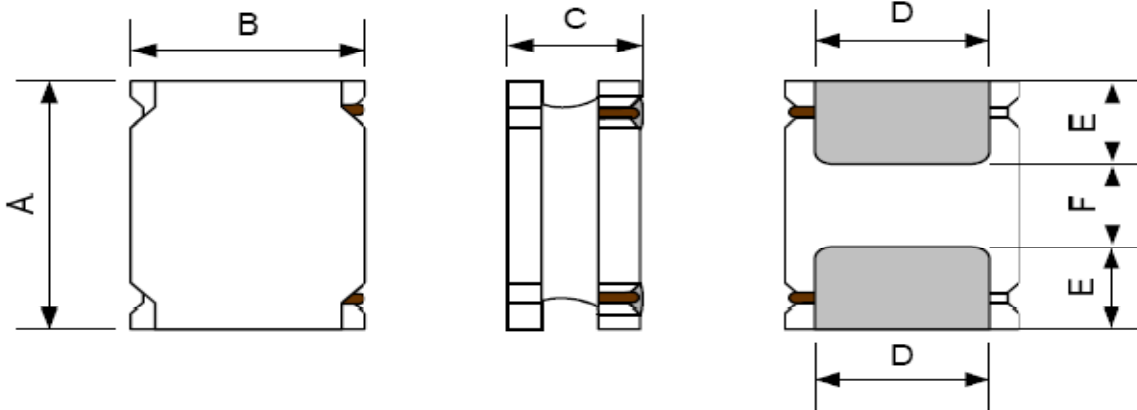
## HSNR SERIES

### 4. PHYSICAL CHARACTERISTICS :

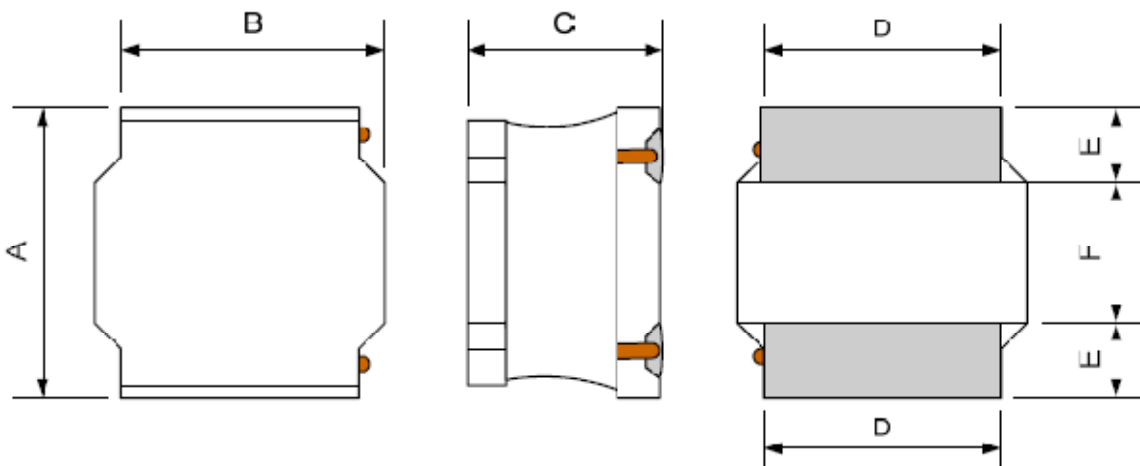
#### Recommended Land Pattern



#### HSNR252012 Series



#### HSNR30/40/50/60/80 Series



# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

Series	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
HSNR252012	2.5±0.1	2.0±0.1	1.2Max.	1.5±0.2	0.80±0.2	0.80±0.2	0.80	0.85	0.85
HSNR3010	3.0±0.2	3.0±0.2	1.0Max.	2.5±0.2	0.75±0.2	1.50±0.2	1.50	0.80	2.70
HSNR3012	3.0±0.2	3.0±0.2	1.2Max.	2.5±0.2	0.75±0.2	1.50±0.2	1.50	0.80	2.70
HSNR3015	3.0±0.2	3.0±0.2	1.5Max.	2.5±0.2	0.75±0.2	1.50±0.2	1.50	0.80	2.70
HSNR4012	4.0±0.2	4.0±0.2	1.2Max.	3.3±0.2	0.95±0.2	2.10±0.2	1.90	1.10	3.70
HSNR4018	4.0±0.2	4.0±0.2	1.8Max.	3.3±0.2	0.95±0.2	2.10±0.2	1.90	1.10	3.70
HSNR4020	4.0±0.2	4.0±0.2	2.0Max.	3.3±0.2	0.95±0.2	2.10±0.2	1.90	1.10	3.70
HSNR4030	4.0±0.2	4.0±0.2	3.0Max.	3.3±0.2	0.95±0.2	2.10±0.2	1.90	1.10	3.70
HSNR5020	5.0±0.2	5.0±0.2	2.0Max.	4.0±0.2	1.25±0.2	2.50±0.2	2.10	1.50	4.40
HSNR5040	5.0±0.2	5.0±0.2	4.0Max.	4.0±0.2	1.25±0.2	2.50±0.2	2.10	1.50	4.40
HSNR6020	6.0±0.3	6.0±0.3	2.0Max.	4.9±0.3	1.55±0.3	2.90±0.3	2.80	1.70	5.70
HSNR6028	6.0±0.3	6.0±0.3	2.8Max.	4.9±0.3	1.55±0.3	2.90±0.3	2.80	1.70	5.70
HSNR6045	6.0±0.3	6.0±0.3	4.5Max.	4.9±0.3	1.55±0.3	2.90±0.3	2.80	1.70	5.70
HSNR8040	8.0±0.3	8.0±0.3	4.2Max.	6.3±0.3	2.00±0.3	4.00±0.3	3.80	2.20	7.50

# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

### 5. ELECTRICAL CHARACTERISTICS:

HSNR252012S Series

Part Number	Inductance @100KHZ,1V	DC Resistance		Saturation Current		Heat Rating Current
		Max.	Typ.	Max.	Typ.	Typ.
Unit	uH	OHM	OHM	A	A	A
Symbol	L	DCR		Isat		Irms
HSNR252012SR47NT	0.47 ± 30%	0.050	0.042	3.60	4.03	2.27
HSNR252012SR68NT	0.68 ± 30%	0.088	0.073	3.06	3.43	1.73
HSNR252012S1R0NT	1.0 ± 30%	0.102	0.085	2.68	3.00	1.58
HSNR252012S1R2NT	1.2 ± 30%	0.119	0.099	2.38	2.67	1.46
HSNR252012S1R5MT	1.5 ± 20%	0.136	0.113	2.24	2.51	1.40
HSNR252012S2R2MT	2.2 ± 20%	0.198	0.165	1.85	2.07	1.15
HSNR252012S2R7MT	2.7 ± 20%	0.222	0.185	1.71	1.92	1.09
HSNR252012S3R3MT	3.3 ± 20%	0.240	0.200	1.61	1.80	1.04
HSNR252012S3R6MT	3.6 ± 20%	0.322	0.268	1.48	1.66	0.90
HSNR252012S4R3MT	4.3 ± 20%	0.348	0.290	1.37	1.53	0.87
HSNR252012S4R7MT	4.7 ± 20%	0.378	0.315	1.18	1.32	0.84
HSNR252012S5R1MT	5.1 ± 20%	0.378	0.315	1.18	1.32	0.84
HSNR252012S5R6MT	5.6 ± 20%	0.401	0.334	1.13	1.26	0.81
HSNR252012S6R2MT	6.2 ± 20%	0.500	0.417	1.03	1.16	0.73
HSNR252012S6R8MT	6.8 ± 20%	0.536	0.447	0.98	1.09	0.69
HSNR252012S7R5MT	7.5 ± 20%	0.564	0.470	0.97	1.09	0.68
HSNR252012S8R2MT	8.2 ± 20%	0.607	0.506	0.98	1.10	0.65
HSNR252012S9R1MT	9.1 ± 20%	0.667	0.556	0.95	1.06	0.62
HSNR252012S100MT	10 ± 20%	0.690	0.575	0.88	0.97	0.62
HSNR252012S120MT	12 ± 20%	0.992	0.827	0.78	0.87	0.51
HSNR252012S150MT	15 ± 20%	1.469	1.224	0.68	0.76	0.42
HSNR252012S220MT	22 ± 20%	1.824	1.520	0.53	0.59	0.38

# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

### HSNR3010S Series

Part Number	Inductance @100KHZ,1V	DC Resistance (±30%)	Min. Self-resonant Frequency	Saturation Current	Heat Rating Current
Unit	uH	OHM	MHz	A	A
Symbol	L	DCR	SRF	Isat	Irms
HSNR3010S1R0NT	1.0±30%	0.065	180	1.40	1.45
HSNR3010S1R5NT	1.5±30%	0.080	120	1.27	1.30
HSNR3010S2R2NT	2.2±30%	0.110	100	1.15	1.09
HSNR3010S2R7NT	2.7±30%	0.130	90	1.00	1.02
HSNR3010S3R3NT	3.3±30%	0.145	74	0.97	0.96
HSNR3010S3R6MT	3.6±20%	0.165	67	0.95	0.90
HSNR3010S4R7MT	4.7±20%	0.225	59	0.75	0.77
HSNR3010S6R8MT	6.8±20%	0.305	42	0.55	0.66
HSNR3010S100MT	10±20%	0.400	39	0.55	0.58
HSNR3010S120MT	12±20%	0.505	36	0.43	0.52
HSNR3010S150MT	15±20%	0.610	30	0.42	0.47
HSNR3010S220MT	22±20%	0.930	28	0.35	0.38
HSNR3010S270MT	27±20%	1.080	25	0.30	0.35
HSNR3010S330MT	33±20%	1.550	18	0.29	0.30
HSNR3010S390MT	39±20%	1.750	18	0.28	0.28
HSNR3010S430MT	43±20%	1.800	18	0.23	0.27
HSNR3010S470MT	47±20%	1.950	18	0.22	0.26
HSNR3010S510MT	51±20%	2.200	18	0.21	0.25
HSNR3010S560MT	56±20%	2.320	16	0.21	0.24

# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

### HSNR3012S Series

Part Number	Inductance @100KHZ,1V	DC Resistance (±30%)	Min. Self-resonant Frequency	Saturation Current	Heat Rating Current
Unit	uH	OHM	MHz	A	A
Symbol	L	DCR	SRF	Isat	Irms
HSNR3012SR82NT	0.82±30%	0.030	180	2.05	2.47
HSNR3012S1R0NT	1.0±30%	0.040	120	1.87	2.20
HSNR3012S1R2NT	1.2±30%	0.045	120	2.22	2.01
HSNR3012S1R5NT	1.5±30%	0.045	110	1.62	2.01
HSNR3012S1R8NT	1.8±30%	0.055	90	1.51	1.84
HSNR3012S2R2NT	2.2±30%	0.075	84	1.20	1.55
HSNR3012S2R4NT	2.4±30%	0.068	100	1.15	1.50
HSNR3012S2R7NT	2.7±30%	0.085	65	1.14	1.48
HSNR3012S3R3MT	3.3±20%	0.100	64	1.05	1.36
HSNR3012S4R7MT	4.7±20%	0.120	61	0.90	1.24
HSNR3012S6R8MT	6.8±20%	0.190	61	0.75	0.98
HSNR3012S100MT	10±20%	0.265	42	0.60	0.83
HSNR3012S120MT	12±20%	0.345	32	0.48	0.73
HSNR3012S150MT	15±20%	0.360	27	0.45	0.71
HSNR3012S180MT	18±20%	0.545	25	0.43	0.58
HSNR3012S220MT	22±20%	0.645	23	0.42	0.53
HSNR3012S270MT	27±20%	0.770	21	0.40	0.49
HSNR3012S330MT	33±20%	0.875	18	0.36	0.46
HSNR3012S360MT	36±20%	0.950	18	0.34	0.44
HSNR3012S390MT	39±20%	1.330	18	0.30	0.37
HSNR3012S470MT	47±20%	1.380	14	0.27	0.36
HSNR3012S560MT	56±20%	1.380	14	0.26	0.36
HSNR3012S620MT	62±20%	1.530	12	0.25	0.35
HSNR3012S680MT	68±20%	1.670	12	0.24	0.33
HSNR3012S820MT	82±20%	2.540	12	0.22	0.27
HSNR3012S101MT	100±20%	2.860	12	0.21	0.25

# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

### HSNR3015S Series

Part Number	Inductance @100KHZ,1V	DC Resistance (±30%)	Min. Self-resonant Frequency	Saturation Current	Heat Rating Current
Unit	uH	OHM	MHz	A	A
Symbol	L	DCR	SRF	Isat	Irms
HSNR3015S1R0NT	1.0±30%	0.037	150	2.30	2.10
HSNR3015S1R2NT	1.5±30%	0.040	110	2.21	1.95
HSNR3015S1R5NT	1.2±30%	0.050	100	2.30	1.70
HSNR3015S1R8NT	1.8±30%	0.050	92	1.75	1.70
HSNR3015S2R2NT	2.2±30%	0.060	86	1.60	1.60
HSNR3015S2R7NT	2.7±30%	0.075	64	1.52	1.43
HSNR3015S3R3MT	3.3±20%	0.080	68	1.32	1.36
HSNR3015S3R6MT	3.6±20%	0.105	59	1.28	1.20
HSNR3015S4R3MT	4.3±20%	0.115	53	1.20	1.14
HSNR3015S4R7MT	4.7±20%	0.125	46	1.10	1.09
HSNR3015S5R1MT	5.1±20%	0.125	49	1.08	1.09
HSNR3015S6R2MT	6.2±20%	0.195	46	1.00	0.86
HSNR3015S6R8MT	6.8±20%	0.200	39	0.85	0.85
HSNR3015S100MT	10±20%	0.250	41	0.72	0.77
HSNR3015S120MT	12±20%	0.320	32	0.70	0.68
HSNR3015S150MT	15±20%	0.350	30	0.66	0.65
HSNR3015S180MT	18±20%	0.430	23	0.56	0.59
HSNR3015S220MT	22±20%	0.460	23	0.52	0.57
HSNR3015S330MT	33±20%	0.820	20	0.44	0.43
HSNR3015S390MT	39±20%	0.995	14	0.41	0.39
HSNR3015S430MT	43±20%	1.060	16	0.37	0.37
HSNR3015S470MT	47±20%	1.250	14	0.35	0.35
HSNR3015S560MT	56±20%	1.280	13	0.33	0.32
HSNR3015S620MT	62±20%	1.430	13	0.33	0.32
HSNR3015S680MT	68±20%	2.700	11	0.28	0.23

# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

### HSNR4012S Series

Part Number	Inductance @100KHZ,1V	DC Resistance (±30%)	Min. Self-resonant Frequency	Saturation Current	Heat Rating Current
Unit	uH	OHM	MHz	A	A
Symbol	L	DCR	SRF	Isat	Irms
HSNR4012SR82NT	0.82±30%	0.050	150	3.53	1.65
HSNR4012S1R0NT	1.0±30%	0.050	120	2.61	1.65
HSNR4012S1R5NT	1.5±30%	0.065	90	2.10	1.46
HSNR4012S1R8NT	1.8±30%	0.080	88	2.47	1.32
HSNR4012S2R2NT	2.2±30%	0.080	74	1.76	1.32
HSNR4012S2R7NT	2.7±30%	0.090	71	1.90	1.25
HSNR4012S3R3NT	3.3±30%	0.113	60	1.25	1.12
HSNR4012S3R6NT	3.6±30%	0.110	57	1.20	1.12
HSNR4012S4R3NT	4.3±30%	0.140	54	1.75	1.00
HSNR4012S4R7NT	4.7±30%	0.125	50	1.15	1.05
HSNR4012S5R1NT	5.1±30%	0.155	50	1.21	0.95
HSNR4012S6R8MT	6.8±20%	0.198	40	0.95	0.84
HSNR4012S100MT	10±20%	0.265	33	0.80	0.77
HSNR4012S120MT	12±20%	0.290	32	0.66	0.70
HSNR4012S150MT	15±20%	0.340	25	0.56	0.64
HSNR4012S180MT	18±20%	0.470	23	0.55	0.55
HSNR4012S220MT	22±20%	0.470	20	0.54	0.55
HSNR4012S270MT	27±20%	0.720	18	0.50	0.45
HSNR4012S330MT	33±20%	0.810	17	0.42	0.42
HSNR4012S360MT	36±20%	0.900	14	0.40	0.40
HSNR4012S390MT	39±20%	1.100	16	0.55	0.37
HSNR4012S470MT	47±20%	1.100	12	0.35	0.37
HSNR4012S560MT	56±20%	1.250	11	0.33	0.33
HSNR4012S680MT	68±20%	1.460	11	0.30	0.31
HSNR4012S820MT	82±20%	2.140	11	0.28	0.26
HSNR4012S101MT	100±20%	2.210	9.4	0.25	0.25



# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

### HSNR4018S Series

Part Number	Inductance @100KHZ,1V	DC Resistance (±30%)	Min. Self-resonant Frequency	Saturation Current	Heat Rating Current
Unit	uH	OHM	MHz	A	A
Symbol	L	DCR	SRF	Isat	Irms
HSNR4018S1R0NT	1.0±30%	0.025	80	4.80	2.00
HSNR4018S2R2MT	2.2±20%	0.045	52	2.70	1.65
HSNR4018S3R3MT	3.3±20%	0.070	44	2.45	1.23
HSNR4018S4R7MT	4.7±20%	0.090	34	1.70	1.20
HSNR4018S6R8MT	6.8±20%	0.110	29	1.45	1.06
HSNR4018S100MT	10±20%	0.180	24	1.30	0.84
HSNR4018S150MT	15±20%	0.250	19	0.94	0.65
HSNR4018S220MT	22±20%	0.360	16	0.80	0.59
HSNR4018S330MT	33±20%	0.530	12	0.65	0.49
HSNR4018S470MT	47±20%	0.650	10	0.57	0.42
HSNR4018S680MT	68±20%	1.000	8.3	0.47	0.32
HSNR4018S101MT	100±20%	1.750	6.5	0.40	0.25
HSNR4018S151MT	150±20%	2.500	5.5	0.31	0.22
HSNR4018S221MT	220±20%	4.000	4.0	0.27	0.17

# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

### HSNR4020S Series

Part Number	Inductance @100KHZ,1V	DC Resistance (±30%)	Min. Self-resonant Frequency	Saturation Current	Heat Rating Current
Unit	uH	OHM	MHz	A	A
Symbol	L	DCR	SRF	Isat	Irms
HSNR4020S1R0NT	1.0±30%	0.029	75	4.85	2.15
HSNR4020S1R2NT	1.2±30%	0.029	72	5.10	2.15
HSNR4020S1R5NT	1.5±30%	0.035	71	4.45	1.98
HSNR4020S2R2NT	2.2±30%	0.040	49	3.40	1.85
HSNR4020S3R3MT	3.3±20%	0.070	44	3.20	1.40
HSNR4020S3R6MT	3.6±20%	0.055	49	2.80	1.54
HSNR4020S4R7MT	4.7±20%	0.075	42	2.35	1.34
HSNR4020S5R1MT	5.1±20%	0.085	42	2.30	1.27
HSNR4020S5R6MT	5.6±20%	0.090	30	2.20	1.22
HSNR4020S6R2MT	6.2±20%	0.115	36	2.15	1.08
HSNR4020S6R8MT	6.8±20%	0.125	33	2.20	1.04
HSNR4020S7R5MT	7.5±20%	0.115	30	1.85	1.08
HSNR4020S8R2MT	8.2±20%	0.125	27	1.75	1.04
HSNR4020S100MT	10±20%	0.165	26	1.60	0.90
HSNR4020S120MT	12±20%	0.175	26	1.50	0.88
HSNR4020S150MT	15±20%	0.230	24	1.35	0.77
HSNR4020S220MT	22±20%	0.350	15	1.05	0.62
HSNR4020S270MT	27±20%	0.545	14	1.02	0.50
HSNR4020S330MT	33±20%	0.550	11	0.85	0.49
HSNR4020S390MT	39±20%	0.650	11	0.82	0.46
HSNR4020S430MT	43±20%	0.660	10	0.77	0.45
HSNR4020S470MT	47±20%	0.710	10	0.74	0.44
HSNR4020S510MT	51±20%	0.750	10	0.70	0.42
HSNR4020S560MT	56±20%	0.800	10	0.66	0.41
HSNR4020S620MT	62±20%	0.900	9.6	0.65	0.39
HSNR4020S680MT	68±20%	1.060	7.7	0.61	0.36
HSNR4020S750MT	75±20%	1.120	7.7	0.60	0.35
HSNR4020S820MT	82±20%	1.170	7.2	0.56	0.34
HSNR4020S101MT	100±20%	1.350	6.3	0.52	0.31

# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

### HSNR4030S Series

Part Number	Inductance @100KHZ,1V	DC Resistance (±30%)	Min. Self-resonant Frequency	Saturation Current	Heat Rating Current
Unit	uH	OHM	MHz	A	A
Symbol	L	DCR	SRF	Isat	Irms
HSNR4030SR91NT	0.91 ± 30%	0.022	100	6.25	3.15
HSNR4030S1R2NT	1.2 ± 30%	0.025	80	5.80	2.96
HSNR4030S1R5NT	1.5 ± 30%	0.030	62	4.84	2.92
HSNR4030S1R8NT	1.8 ± 30%	0.030	60	5.40	2.92
HSNR4030S2R2NT	2.2 ± 30%	0.035	52	4.90	2.57
HSNR4030S3R3MT	3.3 ± 20%	0.040	38	3.30	2.40
HSNR4030S4R3MT	4.3 ± 20%	0.055	37	2.95	2.10
HSNR4030S4R7MT	4.7 ± 20%	0.060	31	2.90	2.00
HSNR4030S5R6MT	5.6 ± 20%	0.065	30	2.60	1.95
HSNR4030S6R2MT	6.2 ± 20%	0.070	29	2.50	1.85
HSNR4030S6R8MT	6.8 ± 20%	0.090	24	2.75	1.60
HSNR4030S7R5MT	7.5 ± 20%	0.085	26	2.20	1.65
HSNR4030S8R2MT	8.2 ± 20%	0.090	26	2.10	1.60
HSNR4030S9R1MT	9.1 ± 20%	0.095	23	2.00	1.55
HSNR4030S100MT	10 ± 20%	0.100	21	1.95	1.50
HSNR4030S120MT	12 ± 20%	0.135	18	1.70	1.30
HSNR4030S150MT	15 ± 20%	0.190	16	1.65	1.11
HSNR4030S180MT	18 ± 20%	0.200	10	1.40	1.10
HSNR4030S220MT	22 ± 20%	0.225	10	1.30	1.00
HSNR4030S330MT	33 ± 20%	0.330	10	1.10	0.84
HSNR4030S360MT	36 ± 20%	0.335	9.8	1.05	0.83
HSNR4030S390MT	39 ± 20%	0.435	10	1.03	0.73
HSNR4030S430MT	43 ± 20%	0.440	9.2	1.00	0.73
HSNR4030S470MT	47 ± 20%	0.445	8.4	0.95	0.72
HSNR4030S510MT	51 ± 20%	0.470	8.4	0.90	0.70
HSNR4030S560MT	56 ± 20%	0.555	8.4	0.85	0.65
HSNR4030S620MT	62 ± 20%	0.829	7	0.80	0.53
HSNR4030S680MT	68 ± 20%	0.868	7	0.75	0.52
HSNR4030S750MT	75 ± 20%	1.020	6.3	0.70	0.48
HSNR4030S820MT	82 ± 20%	1.060	5.6	0.66	0.47
HSNR4030S910MT	91 ± 20%	1.100	5.6	0.65	0.46
HSNR4030S101MT	100 ± 20%	1.150	5.6	0.60	0.45
HSNR4030S121MT	120 ± 20%	1.350	5.4	0.55	0.42

# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

### HSNR5020S Series

Part Number	Inductance @100KHZ,1V	DC Resistance (±30%)	Min. Self-resonant Frequency	Saturation Current	Heat Rating Current
Unit	uH	OHM	MHz	A	A
Symbol	L	DCR	SRF	Isat	Irms
HSNR5020S1R0NT	1.0±30%	0.018	97	4.33	3.70
HSNR5020S1R5NT	1.5±30%	0.026	80	3.85	3.20
HSNR5020S2R2NT	2.2±30%	0.035	61	3.85	2.90
HSNR5020S3R3NT	3.3±30%	0.044	46	3.25	2.40
HSNR5020S4R7NT	4.7±30%	0.059	33	2.40	2.05
HSNR5020S6R8MT	6.8±20%	0.087	30	1.80	1.70
HSNR5020S100MT	10±20%	0.110	24	1.79	1.50
HSNR5020S150MT	15±20%	0.165	20	1.44	1.25
HSNR5020S220MT	22±20%	0.235	16	1.18	1.05
HSNR5020S330MT	33±20%	0.370	13	0.97	0.83
HSNR5020S470MT	47±20%	0.525	11	0.81	0.70
HSNR5020S680MT	68±20%	0.885	8.8	0.70	0.53
HSNR5020S101MT	100±20%	1.060	7.6	0.57	0.49

# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

### HSNR5040S Series

Part Number	Inductance @100KHZ,1V	DC Resistance ( $\pm 30\%$ )	Min. Self-resonant Frequency	Saturation Current	Heat Rating Current
Unit	$\mu\text{H}$	OHM	MHz	A	A
Symbol	L	DCR	SRF	Isat	Irms
HSNR5040S1R5NT	$1.5 \pm 30\%$	0.013	60	7.30	4.45
HSNR5040S2R2NT	$2.2 \pm 30\%$	0.017	42	6.50	3.95
HSNR5040S3R3NT	$3.3 \pm 30\%$	0.025	32	5.10	3.40
HSNR5040S4R7NT	$4.7 \pm 30\%$	0.029	28	4.40	3.10
HSNR5040S6R8MT	$6.8 \pm 20\%$	0.043	21	3.80	2.40
HSNR5040S100MT	$10 \pm 20\%$	0.055	18	2.90	2.10
HSNR5040S150MT	$15 \pm 20\%$	0.089	13	2.30	1.60
HSNR5040S220MT	$22 \pm 20\%$	0.126	9	1.90	1.40
HSNR5040S330MT	$33 \pm 20\%$	0.192	7	1.60	1.20
HSNR5040S470MT	$47 \pm 20\%$	0.283	6	1.30	0.94

# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

### HSNR6020S Series

Part Number	Inductance @100KHZ,1V	DC Resistance (±30%)	Min. Self-resonant Frequency	Saturation Current	Heat Rating Current
Unit	uH	OHM	MHz	A	A
Symbol	L	DCR	SRF	Isat	Irms
HSNR6020SR50NT	0.50±30%	0.013	130	4.90	4.05
HSNR6020SR68NT	0.68±30%	0.017	120	7.50	3.80
HSNR6020SR82NT	0.82±30%	0.017	110	6.60	3.80
HSNR6020S1R0NT	1.0±30%	0.020	94	4.15	3.25
HSNR6020S1R2NT	1.2±30%	0.022	88	5.90	3.20
HSNR6020S1R5NT	1.5±30%	0.022	79	4.25	3.20
HSNR6020S1R8NT	1.8±30%	0.028	68	4.85	2.75
HSNR6020S2R2NT	2.2±30%	0.028	61	3.75	2.75
HSNR6020S2R7NT	2.7±30%	0.035	56	3.90	2.60
HSNR6020S3R3NT	3.3±30%	0.035	51	3.15	2.60
HSNR6020S3R9NT	3.9±30%	0.049	46	3.25	2.10
HSNR6020S4R3NT	4.3±30%	0.049	44	2.70	2.10
HSNR6020S4R7NT	4.7±30%	0.058	41	3.00	2.00
HSNR6020S5R6NT	5.6±30%	0.058	36	2.40	1.90
HSNR6020S6R2NT	6.2±30%	0.079	35	2.30	1.80
HSNR6020S6R8NT	6.8±30%	0.079	31	2.20	1.80
HSNR6020S8R2NT	8.2±30%	0.105	28	2.10	1.40
HSNR6020S100MT	10±20%	0.105	27	1.75	1.40
HSNR6020S120MT	12±20%	0.120	23	1.70	1.35
HSNR6020S150MT	15±20%	0.145	21	1.50	1.20
HSNR6020S180MT	18±20%	0.175	19	1.23	1.10
HSNR6020S220MT	22±20%	0.204	16	1.25	1.00

# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

### HSNR6028S Series

Part Number	Inductance @100KHZ,1V	DC Resistance (±30%)	Min. Self-resonant Frequency	Saturation Current	Heat Rating Current
Unit	uH	OHM	MHz	A	A
Symbol	L	DCR	SRF	Isat	Irms
HSNR6028S1R5NT	1.5±30%	0.013	65	6.00	4.58
HSNR6028S2R2NT	2.2±30%	0.015	56	5.10	4.09
HSNR6028S2R7NT	2.7±30%	0.020	48	3.80	3.75
HSNR6028S3R3NT	3.3±30%	0.025	41	3.63	3.48
HSNR6028S4R7NT	4.7±30%	0.030	35	3.00	3.08
HSNR6028S5R1NT	5.1±30%	0.035	33	3.55	2.89
HSNR6028S6R2MT	6.2±20%	0.040	30	3.05	2.58
HSNR6028S6R8MT	6.8±20%	0.047	27	2.85	2.40
HSNR6028S8R2MT	8.2±20%	0.055	24	2.60	2.25
HSNR6028S9R1MT	9.1±20%	0.060	24	2.55	2.15
HSNR6028S100MT	10±20%	0.072	23	2.04	1.95
HSNR6028S120MT	12±20%	0.080	18	1.80	1.85
HSNR6028S150MT	15±20%	0.125	18	1.75	1.45
HSNR6028S180MT	18±20%	0.120	15	1.52	1.45
HSNR6028S220MT	22±20%	0.140	14	1.60	1.40
HSNR6028S270MT	27±20%	0.155	13	1.50	1.32
HSNR6028S330MT	33±20%	0.185	12	1.35	1.22
HSNR6028S360MT	36±20%	0.215	11	1.25	1.13
HSNR6028S390MT	39±20%	0.225	11	1.25	1.10
HSNR6028S430MT	43±20%	0.235	11	1.20	1.07
HSNR6028S470MT	47±20%	0.245	9.5	1.15	1.06
HSNR6028S510MT	51±20%	0.265	9.5	1.05	1.01
HSNR6028S620MT	62±20%	0.345	7.7	0.95	0.89
HSNR6028S680MT	68±20%	0.360	7.7	0.95	0.86
HSNR6028S750MT	75±20%	0.410	7.7	0.90	0.81
HSNR6028S820MT	82±20%	0.445	7.7	0.90	0.78
HSNR6028S910MT	91±20%	0.505	7.7	0.80	0.73
HSNR6028S101MT	100±20%	0.545	7.1	0.75	0.70

# SHENZHEN HIGHSTARTECH ELECTRONICS CO.,LTD

## HSNR SERIES

HSNR6045S Series

Part Number	Inductance @100KHZ,1V	DC Resistance (±30%)	Min. Self-resonant Frequency	Saturation Current	Heat Rating Current
Unit	uH	OHM	MHz	A	A
Symbol	L	DCR	SRF	Isat	Irms
HSNR6045SR82NT	0.82±30%	0.008	140	10.4	5.90
HSNR6045S1R0NT	1.0±30%	0.011	100	9.85	5.14
HSNR6045S1R2NT	1.2±30%	0.010	100	8.35	5.40
HSNR6045S1R5NT	1.5±30%	0.012	65	8.80	4.95
HSNR6045S1R8NT	1.8±30%	0.012	74	7.60	4.95
HSNR6045S2R2NT	2.2±30%	0.014	52	6.75	4.60
HSNR6045S2R3NT	2.3±30%	0.021	60	6.00	3.50
HSNR6045S2R7NT	2.7±30%	0.015	38	5.75	4.30
HSNR6045S3R0NT	3.0±30%	0.020	35	5.60	3.80
HSNR6045S3R3NT	3.3±30%	0.021	32	5.90	3.70
HSNR6045S3R6NT	3.6±30%	0.021	28	5.25	3.70
HSNR6045S4R3MT	4.3±20%	0.023	23	4.45	3.50
HSNR6045S4R7MT	4.7±20%	0.026	24	4.97	3.30
HSNR6045S5R1MT	5.1±20%	0.026	23	4.40	3.30
HSNR6045S5R6MT	5.6±20%	0.029	23	4.15	3.15
HSNR6045S6R2MT	6.2±20%	0.031	26	4.43	3.00
HSNR6045S6R8MT	6.8±20%	0.031	20	3.90	3.00
HSNR6045S7R5MT	7.5±20%	0.034	18	3.50	2.90
HSNR6045S8R2MT	8.2±20%	0.043	21	3.90	2.60
HSNR6045S9R1MT	9.1±20%	0.043	17	3.35	2.60
HSNR6045S100MT	10±20%	0.048	15	3.20	2.45
HSNR6045S120MT	12±20%	0.058	13	2.80	2.20
HSNR6045S150MT	15±20%	0.068	12	2.50	2.05
HSNR6045S180MT	18±20%	0.081	10	2.20	1.85
HSNR6045S220MT	22±20%	0.089	10	2.05	1.80
HSNR6045S270MT	27±20%	0.102	9.2	1.90	1.65
HSNR6045S300MT	30±20%	0.132	7.8	1.70	1.50
HSNR6045S330MT	33±20%	0.137	7.8	1.65	1.45
HSNR6045S360MT	36±20%	0.173	7.8	1.62	1.40
HSNR6045S390MT	39±20%	0.180	7.8	1.50	1.25
HSNR6045S430MT	43±20%	0.200	7.7	1.63	1.20
HSNR6045S470MT	47±20%	0.200	6.4	1.40	1.20
HSNR6045S510MT	51±20%	0.207	6.4	1.35	1.15
HSNR6045S560MT	56±20%	0.221	6.4	1.30	1.10
HSNR6045S620MT	62±20%	0.235	6.4	1.25	1.10
HSNR6045S680MT	68±20%	0.289	6.4	1.20	1.00
HSNR6045S750MT	75±20%	0.305	5.0	1.15	0.95
HSNR6045S820MT	82±20%	0.341	4.9	1.05	0.90
HSNR6045S910MT	91±20%	0.359	4.9	1.00	0.85
HSNR6045S101MT	100±20%	0.433	4.2	0.95	0.80
HSNR6045S121MT	120±20%	0.484	4.2	0.85	0.77
HSNR6045S151MT	150±20%	0.580	4.2	0.80	0.70
HSNR6045S221MT	220±20%	0.834	3.5	0.70	0.59
HSNR6045S331MT	330±20%	1.270	2.8	0.57	0.57



# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

### HSNR8040S Series

Part Number	Inductance @100KHZ,1V	DC Resistance (±30%)	Min. Self-resonant Frequency	Saturation Current	Heat Rating Current
Unit	uH	OHM	MHz	A	A
Symbol	L	DCR	SRF	Isat	Irms
HSNR8040SR82NT	0.82±30%	0.008	94	13.8	6.30
HSNR8040S1R0NT	1.0±30%	0.008	89	9.85	6.30
HSNR8040S1R5NT	1.5±30%	0.010	67	8.15	5.65
HSNR8040S2R0NT	2.0±30%	0.012	43	9.25	5.15
HSNR8040S2R2NT	2.2±30%	0.012	41	7.10	5.15
HSNR8040S3R0NT	3.0±30%	0.014	32	6.10	4.70
HSNR8040S3R3NT	3.3±30%	0.017	27	6.50	4.40
HSNR8040S3R6NT	3.6±30%	0.017	30	7.52	4.35
HSNR8040S4R7NT	4.7±30%	0.019	24	5.90	4.10
HSNR8040S5R1NT	5.1±30%	0.019	22	4.70	4.05
HSNR8040S5R6NT	5.6±30%	0.021	24	6.00	3.85
HSNR8040S6R2NT	6.2±30%	0.021	20	4.45	3.85
HSNR8040S6R8MT	6.8±20%	0.024	20	4.55	3.60
HSNR8040S8R2MT	8.2±20%	0.026	17	4.20	3.45
HSNR8040S100MT	10±20%	0.029	15	3.60	3.30
HSNR8040S150MT	15±20%	0.047	12	2.95	2.60
HSNR8040S180MT	18±20%	0.053	11	2.70	2.40
HSNR8040S220MT	22±20%	0.069	9.5	2.40	2.10
HSNR8040S270MT	27±20%	0.078	9.2	2.15	2.00
HSNR8040S330MT	33±20%	0.097	7.8	2.05	1.80
HSNR8040S360MT	36±20%	0.102	7.8	2.00	1.75
HSNR8040S390MT	39±20%	0.107	7.8	1.95	1.70
HSNR8040S430MT	43±20%	0.113	7.8	1.90	1.65
HSNR8040S470MT	47±20%	0.136	6.4	1.75	1.55
HSNR8040S510MT	51±20%	0.142	6.4	1.70	1.50
HSNR8040S560MT	56±20%	0.148	6.4	1.55	1.45
HSNR8040S620MT	62±20%	0.182	6.4	1.50	1.30
HSNR8040S680MT	68±20%	0.196	4.9	1.45	1.25
HSNR8040S750MT	75±20%	0.211	4.9	1.35	1.20
HSNR8040S820MT	82±20%	0.225	5.9	1.30	1.15
HSNR8040S910MT	91±20%	0.272	4.9	1.20	1.05
HSNR8040S101MT	100±20%	0.290	4.2	1.15	1.00
HSNR8040S121MT	120±20%	0.334	3.5	1.05	0.95
HSNR8040S151MT	150±20%	0.410	3.5	1.10	0.85
HSNR8040S221MT	220±20%	0.599	3.5	0.85	0.80
HSNR8040S331MT	330±20%	0.889	2.8	0.68	0.64

※1: All test data is referenced to 20°C ambient;

※2: Rated current: Isat or Irms, whichever is smaller;

※3: Isat: DC current at which the inductance drops approximate 30% from its value without current;

※4: Irms:DC current that causes the temperature rise(ΔT=40°C) from 20°C ambient.

# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HSNR SERIES

### PACKAGING

Series	Quantity (pcs/reel)	Series	Quantity (pcs/reel)	Series	Quantity (pcs/reel)
HSNR252012	2000	SHNR4018	3000	SHNR6020	2500
HSNR3010	2000	SHNR4020	3000	SHNR6028	2000
HSNR3012	2000	SHNR4030	2000	SHNR6045	1500
HSNR3015	2000	SHNR5020	2500	SHNR8040	1000
HSNR4012	4500	SHNR5040	1500		