

SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

HSSFP SERIES

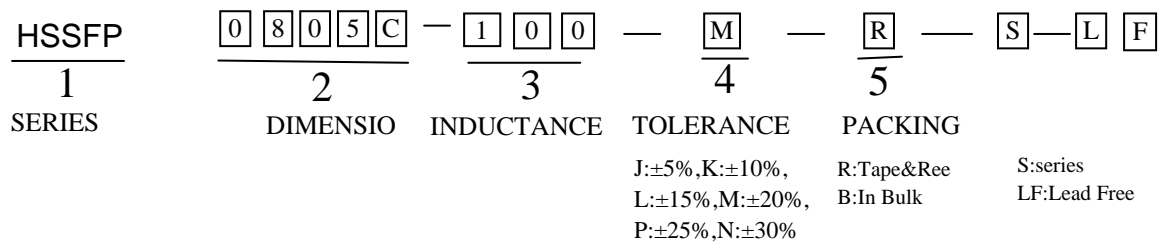
1. FEATURES:

- (1) The surface mount inductors are designed for the smallest possible size and high performance.
- (2) They are with high energy storage and very low resistance making them the ideal inductance for DC-DC conversion in the following applications.

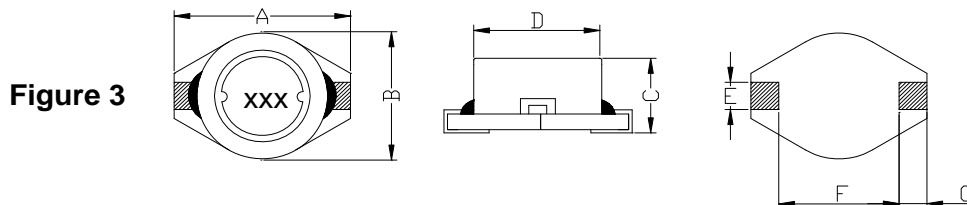
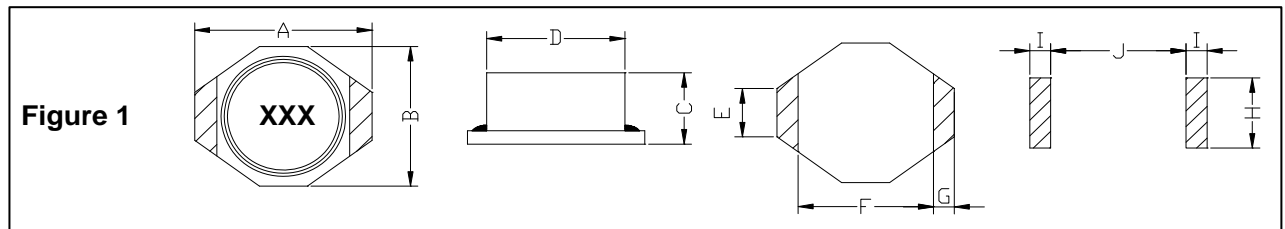
2. APPLICATIONS:

- (1) VGA display card, Notebook computers PDAs.
- (2) Step-up and step-down converters.
- (3) Flash memory programmers, etc.

3. PART NUMBER SYSTEM:



4. PHYSICAL CHARACTERISTICS:



Type	A	B	C	D	E	F	G	Figure
HS-SFP0804C	10.5±0.3	8.0±0.3	3.7±0.3	8.0±0.3	6.0±0.3	2.0±0.3	2.1±0.3	3
HS-SFP0805C	10.5±0.2	8.0±0.3	4.5±0.3	7.9±0.3	6.0±0.3	2.0±0.3	2.1±0.3	3
HS-SFP1003C	13.5max	10±0.2	2.7±0.3	9.85±0.3	8.0 ref	2.54 ref	2.54 ref	3
HS-SFP1005C	13.5max	10±0.2	4.9±0.3	9.85±0.3	8.0 ref	2.54 ref	2.54 ref	3
HS-SFP1813F	8.89	6.1	4.7	4.8	3.0	5.0	1.18	1
HS-SFP3308F	12.95	9.4	3.0	8.38	2.54	7.62	2.54	1
HS-SFP3316F	12.95	9.4	5.21	8.38	2.54	7.62	2.54	1
HS-SFP3340F	12.95	9.4	11.43	8.38	2.54	7.62	2.54	1
HS-SFP5022F	18.54	15.24	7.11	12.7	2.54	12.7	2.54	1

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HSSFPP SERIES

5. ELECTRICAL CHARACTERISTICS:

HS-SFP0804C SERIES

Part Number.	Inductance (μ H)	Q ref.	Test Freq. (Hz)		SRF (MHz) NOM.	RDC (Ω) max.	IDC (A) max
			L	Q			
HS-SFP0804C-5R0M	5.0 \pm 20%	20	1k	7.960M	45.0	0.080	1.70
HS-SFP0804C-7R5M	7.5 \pm 20%	20	1k	7.960M	40.0	0.100	1.40
HS-SFP0804C-100M	10.0 \pm 20%	38	1k	2.520M	32.0	0.120	2
HS-SFP0804C-120M	12.0 \pm 20%	38	1k	2.520M	28.0	0.150	1.10
HS-SFP0804C-150M	15.0 \pm 20%	38	1k	2.520M	25.0	0.170	1.00
HS-SFP0804C-180L	18.0 \pm 15%	35	1k	2.520M	23.0	0.190	0.90
HS-SFP0804C-220L	22.0 \pm 15%	30	1k	2.520M	22.0	0.250	0.80
HS-SFP0804C-270L	27.0 \pm 15%	28	1k	2.520M	20.0	0.270	0.70
HS-SFP0804C-330L	33.0 \pm 15%	26	1k	2.520M	18.0	0.300	0.65
HS-SFP0804C-390L	39.0 \pm 15%	26	1k	2.520M	17.0	0.380	0.60
HS-SFP0804C-470K	47.0 \pm 10%	24	1k	2.520M	16.0	0.460	0.55
HS-SFP0804C-560K	56.0 \pm 10%	24	1k	2.520M	14.0	0.600	0.50
HS-SFP0804C-680K	68.0 \pm 10%	22	1k	2.520M	12.0	0.700	0.45
HS-SFP0804C-820K	82.0 \pm 10%	20	1k	2.520M	11.0	0.800	0.40
HS-SFP0804C-101K	100.0 \pm 10%	50	1k	0.796M	10.0	0.950	0.37
HS-SFP0804C-121K	120.0 \pm 10%	50	1k	0.796M	9.0	1.000	0.35
HS-SFP0804C-151K	150.0 \pm 10%	53	1k	0.796M	8.5	1.300	0.30
HS-SFP0804C-181K	180.0 \pm 10%	53	1k	0.796M	7.0	1.450	0.28
HS-SFP0804C-221K	220.0 \pm 10%	55	1k	0.796M	6.0	1.900	0.24
HS-SFP0804C-271K	270.0 \pm 10%	50	1k	0.796M	5.5	2.150	0.22
HS-SFP0804C-331K	330.0 \pm 10%	60	1k	0.796M	5.5	2.800	0.19
HS-SFP0804C-391K	390.0 \pm 20%	55	1k	0.796M	4.5	3.300	0.17
HS-SFP0804C-471K	470.0 \pm 20%	50	1k	0.796M	4.0	3.600	0.16

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HS-SFP1813F SERIES

Part Number	Inductance ¹ (μ H)	DCR(max) (Ω)	SRF (typ.) (MHz)	Isat ² (A)	Irms ³ (A rms)
HS-SFP1813F-R18M	0.18	0.003	800	14.0	10.0
HS-SFP1813F-R33M	0.33	0.004	600	10.0	7.0
HS-SFP1813F-R56M	0.56	0.010	200	7.7	6.0
HS-SFP1813F-1R2M	1.2	0.017	140	5.3	4.4
HS-SFP1813F-2R2M	2.2	0.035	100	3.5	3.1
HS-SFP1813F-3R3M	3.3	0.040	80	3.0	2.7
HS-SFP1813F-4R7M	4.7	0.054	50	2.6	2.2
HS-SFP1813F-6R8M	6.8	0.080	45	2.2	1.8
HS-SFP1813F-100M	10	0.111	40	1.9	1.5
HS-SFP1813F-150M	15	0.170	30	1.5	1.2
HS-SFP1813F-220M	22	0.250	25	1.2	1.0
HS-SFP1813F-330M	33	0.350	20	0.99	0.82
HS-SFP1813F-470M	47	0.470	15	0.87	0.72
HS-SFP1813F-680M	68	0.730	10	0.67	0.56
HS-SFP1813F-101M	100	1.110	8	0.53	0.47

HS-SFP3308F SERIES

Part Number	Inductance ¹ (μ H)	DCR(max) (Ω)	SRF (typ.) (MHz)	Isat ² (A)	Irms ³ (A rms)
HS-SFP3308F-100M	10	0.11	35	2.4	2.0
HS-SFP3308F-150M	15	0.15	33	2.0	1.5
HS-SFP3308F-220M	22	0.23	25	1.6	1.3
HS-SFP3308F-330M	33	0.30	19	1.4	1.1
HS-SFP3308F-470M	47	0.39	14	1.0	0.8
HS-SFP3308F-680M	68	0.66	12	0.9	0.7
HS-SFP3308F-101M	100	0.84	10	0.7	0.6
HS-SFP3308F-151M	150	1.2	8	0.6	0.5
HS-SFP3308F-221M	220	1.9	6	0.5	0.4
HS-SFP3308F-331M	330	2.7	5	0.4	0.3
HS-SFP3308F-471M	470	4.0	4	0.3	0.2
HS-SFP3308F-681M	680	5.3	3	0.2	0.1
HS-SFP3308F-102M	1000	8.4	2.5	0.1	0.05

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HSSFP SERIES

HS-SFP3316F SERIES

Part Number	Inductance ¹ (μ H)	DCR (max) (Ω)	SRF (typ.) ² (MHz)	I _{sat} ³ (A)	I _{rms} ⁴ (A rms)
HS-SFP3316F-1R0M	1.00	0.009	100	9.0	6.8
HS-SFP3316F-1R5M	1.50	0.010	90	8.0	6.4
HS-SFP3316F-2R2M	2.20	0.012	80	7.0	6.1
HS-SFP3316F-3R3M	3.30	0.015	65	6.4	5.4
HS-SFP3316F-4R7M	4.70	0.018	45	5.4	4.8
HS-SFP3316F-6R8M	6.80	0.027	38	4.6	4.4
HS-SFP3316F-100M	10.00	0.038	30	3.8	3.9
HS-SFP3316F-150M	15.00	0.046	27	3.0	3.1
HS-SFP3316F-220M	22.00	0.085	19	2.6	2.7
HS-SFP3316F-330M	33.00	0.10	15	2.0	2.1
HS-SFP3316F-470M	47.00	0.14	12	1.6	1.8
HS-SFP3316F-680M	68.00	0.20	10	1.4	1.5
HS-SFP3316F-101M	100.00	0.28	9	1.2	1.3
HS-SFP3316F-151M	150.00	0.40	6	1.0	1.0
HS-SFP3316F-221M	220.00	0.61	5	0.8	0.8
HS-SFP3316F-331M	330.00	1.02	4.5	0.6	0.6
HS-SFP3316F-471M	470.00	1.27	3.5	0.5	0.5
HS-SFP3316F-681M	680.00	2.02	2.5	0.4	0.4
HS-SFP3316F-102M	1000.00	3.00	2.0	0.3	0.3

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HSSFP SERIES

HS-SFP3316C SERIES

Part Number	Inductance ¹ (μ H)	DCR (max) (Ω)	SRF (typ.) (MHz)	Isat ² (A)	I _{rms} ³ (A rms)
HS-SFP3316C-1R0M	1.00	0.021	140	5.60	5.0
HS-SFP3316C-1R5M	1.50	0.022	120	5.20	4.5
HS-SFP3316C-2R2M	2.20	0.032	80	5.00	3.8
HS-SFP3316C-3R3M	3.30	0.039	70	3.90	3.3
HS-SFP3316C-4R7M	4.70	0.054	40	3.20	2.7
HS-SFP3316C-6R8M	6.80	0.075	38	2.80	2.2
HS-SFP3316C-100M	10.00	0.101	35	2.40	2.0
HS-SFP3316C-150M	15.00	0.150	25	2.00	1.5
HS-SFP3316C-220M	22.00	0.207	19	1.60	1.3
HS-SFP3316C-330M	33.00	0.334	15	1.40	1.1
HS-SFP3316C-470M	47.00	0.472	13	1.00	0.8
HS-SFP3316C-680M	68.00	0.660	10	0.9	0.70
HS-SFP3316C-101M	100.00	1.110	7	0.8	0.60
HS-SFP3316C-151M	150.00	1.550	6	0.6	0.50
HS-SFP3316C-221M	220.00	2.000	5	0.5	0.37
HS-SFP3316C-102M	1000.00	8.300	2	0.32	0.17

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HS-SFP3316DT SERIES

Part Number	Inductance (μ H) @100kHz	DCR(max) (Ω)	SRF (typ.) (MHz)	Inductance Rating1 (μ H)	Current Rating2 (A)	Max. Energy Storage (μ Joules)	Max. Switching Frequency
HS-SFP3316DT-1R0M	1.0	0.025	60	0.50	5.0	9	1MHz
HS-SFP3316DT-1R5M	1.5	0.030	55	0.70	5.0	12	1MHz
HS-SFP3316DT-2R2M	2.2	0.035	55	1.0	5.0	15	1MHz
HS-SFP3316DT-3R3M	3.3	0.040	50	1.5	5.0	16	1MHz
HS-SFP3316DT-4R7M	4.7	0.045	45	2.0	3.0	10	1MHz
HS-SFP3316DT-6R8M	6.8	0.050	40	4.0	2.5	14	1MHz
HS-SFP3316DT-100M	10	0.055	35	5.0	2.0	11	1MHz
HS-SFP3316DT-150M	15	0.060	25	6.0	1.8	12	1MHz
HS-SFP3316DT-220M	22	0.084	22	10	1.5	11	1MHz
HS-SFP3316DT-330M	33	0.090	18	12	1.3	13	1MHz
HS-SFP3316DT-470M	47	0.11	16	27	1.0	13	1MHz
HS-SFP3316DT-680M	68	0.15	12	40	0.90	17	1MHz
HS-SFP3316DT-101M	100	0.29	9	50	0.80	15	1MHz
HS-SFP3316DT-151M	150	0.36	8	80	0.60	15	500KMHz
HS-SFP3316DT-221M	220	0.39	6	90	0.50	10	500KMHz
HS-SFP3316DT-331M	330	0.73	5	150	0.40	13	500KMHz
HS-SFP3316DT-471M	470	0.88	4	200	0.35	13	500KMHz
HS-SFP3316DT-681M	680	1.15	3	300	0.30	13	500KMHz
HS-SFP3316DT-102M	1000	1.45	2.5	420	0.25	13	500KMHz

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HS-SFP3340F SERIES

Part Number	Inductance ¹ (μ H)	DCR(max) (Ω)	SRF (typ.) (MHz)	Isat ² (A)	Irms ³ (A rms)
HS-SFP3340F-100M	10.00	0.040	22	8.00	3.5
HS-SFP3340F-150M	15.00	0.050	18	7.00	3.0
HS-SFP3340F-220M	22.00	0.066	11	5.50	2.5
HS-SFP3340F-330M	33.00	0.080	9	4.00	2.0
HS-SFP3340F-470M	47.00	0.110	8	3.80	1.6
HS-SFP3340F-680M	68.00	0.170	7	3.00	1.2
HS-SFP3340F-101M	100.00	0.220	5	2.50	1.2
HS-SFP3340F-151M	150.00	0.340	4	2.00	0.9
HS-SFP3340F-221M	220.00	0.440	3.5	1.60	0.7
HS-SFP3340F-331M	330.00	0.700	2.5	1.20	0.6
HS-SFP3340F-471M	470.00	0.950	2.0	1.00	0.3
HS-SFP3340F-681M	680.00	1.200	2.0	1.00	0.2
HS-SFP3340F-102M	1000.00	2.000	1.5	0.80	0.1

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HSSFP SERIES

HS-SFP5022F SERIES

Part Number	Inductance ¹ (μ H)	DCR(max) (Ω)	SRF (typ.) ² (MHz)	Isat ³ (A)	Irms ⁴ (A rms)
HS-SFP5022F-1R0M	1.00	0.009	80	20.0	8.6
HS-SFP5022F-2R2M	2.20	0.014	80	16.0	7.1
HS-SFP5022F-3R3M	3.30	0.018	60	14.0	6.2
HS-SFP5022F-5R6M	5.60	0.020	40	12.0	5.3
HS-SFP5022F-100M	10.00	0.031	30	10.0	4.3
HS-SFP5022F-150M	15.00	0.036	22	8.0	4.0
HS-SFP5022F-220M	22.00	0.047	20	7.0	3.5
HS-SFP5022F-330M	33.00	0.066	15	5.5	3.0
HS-SFP5022F-470M	47.00	0.086	9	4.5	2.6
HS-SFP5022F-680M	68.00	0.13	8	3.5	2.3
HS-SFP5022F-101M	100.00	0.19	7	3.0	1.8
HS-SFP5022F-151M	150.00	0.25	6	2.6	1.5
HS-SFP5022F-221M	220.00	0.38	5	2.4	1.2
HS-SFP5022F-331M	330.00	0.56	4	1.9	1.0
HS-SFP5022F-471M	470.00	0.85	3	1.4	0.82
HS-SFP5022F-681M	680.00	1.10	2.5	1.2	0.72
HS-SFP5022F-102M	1000.00	1.80	2.0	1.0	0.56

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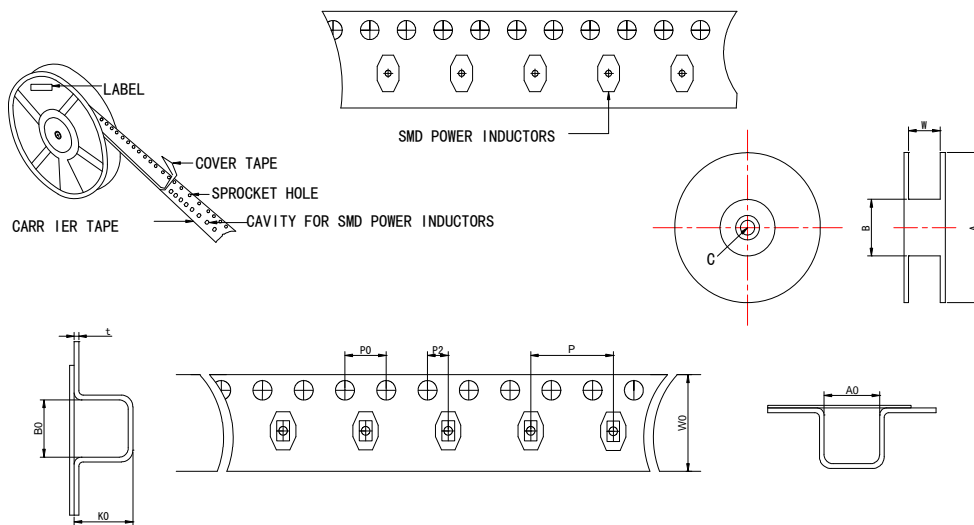
HSSFP SERIES

HS-SFP5022C SERIES

Part Number	Inductance ¹ (μ H)	DCR(max) (Ω)	SRF (typ.) (MHz)	Isat ² (A)	Irms ³ (A rms)
HS-SFP5022C-100M	10.0	0.040	30	8.00	3.9
HS-SFP5022C-150M	15.0	0.048	20	7.00	3.4
HS-SFP5022C-220M	22.0	0.059	18	6.00	3.1
HS-SFP5022C-330M	33.0	0.075	14	5.00	2.8
HS-SFP5022C-470M	47.0	0.097	10	4.00	2.4
HS-SFP5022C-680M	68.0	0.138	9	3.00	2.0
HS-SFP5022C-101M	100.0	0.207	7	2.40	1.7
HS-SFP5022C-151M	150.0	0.293	6	2.10	1.3
HS-SFP5022C-221M	220.0	0.47	5	1.90	1.1
HS-SFP5022C-331M	330.0	0.78	4	1.10	0.86
HS-SFP5022C-471M	470.0	1.08	3	1.10	0.73
HS-SFP5022C-681M	680.0	1.40	2.5	0.96	0.64
HS-SFP5022C-102M	1000.0	2.01	2.0	0.80	0.53

SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

HSSFP SERIES



●Reel Dimensions & Packing Unit

UNIT:mm

Part Number	Dimensions of Reel				Packaging Unit
	A	B	C	W	
HS-SFP1813F	330	100.0±2.00	13.50±0.50	24.0±0.50	1000pcs/r
HS-SFP3308F	330	100.0±2.00	13.50±0.50	24.0±0.50	1000pcs/r
HS-SFP3316F/3316C/3316DT	330	100.0±2.00	13.50±0.50	24.0±0.50	1000pcs/r
HS-SFP3340F	330	100.0±2.00	13.50±0.50	24.0±0.50	225pcs/r
HS-SFP5022F/5022C	330	100.0±2.00	13.50±0.50	32.0±0.50	250pcs/r

●Carrier Tape Dimensions

UNIT:mm

Sym.	HS-SFP1813F	HS-SFP3308F	HS-SFP3316F HS-SFP3316C HS-SFP3316DT	HS-SFP3340F	HS-SFP5022F HS-SFP5022C
A0	6.6±0.10	9.7±0.10	9.7±0.10	9.70±0.10	15.50±0.10
B0	8.95±0.10	13.3±0.10	13.3±0.10	13.3±0.10	18.50±0.10
K0	5.1±0.10	3.30±0.10	5.40±0.10	11.8±0.10	7.40±0.10
P	12.00±0.10	12.00±0.10	12.00±0.10	12.00±0.10	20.00±0.10
P0	4.00±0.10	4.00±0.10	4.00±0.10	4.00±0.10	4.00±0.10
P2	2.00±0.10	2.00±0.10	2.00±0.10	2.00±0.10	2.00±0.10
W0	24.00±0.30	24.00±0.30	24.00±0.30	24.00±0.30	32.00±0.30
t	0.30±0.10	0.40±0.10	0.40±0.10	0.50±0.10	0.40±0.10