

**SURFACE MOUNT
SHIELDED POWER INDUCTOR
SERIES SPS**

FEATURES

- Low profile and shielded.
- Very effective in space-conscious applications
- Low resistance and high energy storage
- Sturdy construction
- Excellent for used in DC-DC converters in notebooks computers, PDA and mobile phones
- Other applications include step-up or step-down converters and flash memory programmers

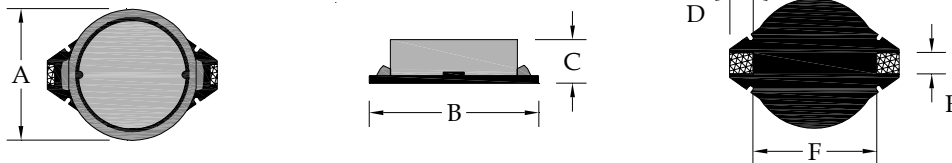
ELECTRICAL CHARACTERISTICS

Inductance range	Series SPS2012 from 2.2uH to 1,000uH Series SPS3308 from 2.2uH to 470uH Series SPS3316 from 1.0uH to 390uH Series SPS5022 from 10.0uH to 1,000uH
Test equipment	Quadtech 1750 LCR Meter at 100 kHz
Rated current	Based on temperature rises of 30° C typical

PHYSICAL CHARACTERISTICS

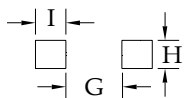
Operating temperature	- 40° C to +125° C
Soldering heat resistance	260° C for 10 seconds
Construction	Surface mount with ferrite core
Terminal	Tin plated copper
Tape & reel specifications	330 mm plastic reel with 24 mm embossed carrier tape
Quantity per reel	SPS2012 1,000 pieces SPS3308 1,000 pieces SPS3316 600 pieces SPS5022 350 pieces

DIMENSIONS IN MILLIMETERS



SERIES	A	B	C	D	E	F
SPS2012	8.00 ± 0.2	10.50 ± 0.2	5.00 ± 0.3	2.10 ± 0.2	2.00 ± 0.2	6.00 ± 0.3
SPS3308	10.0 ± 0.2	12.70 ± 0.2	3.00 ± 0.3	2.40 ± 0.2	2.20 ± 0.2	7.60 ± 0.3
SPS3316	10.0 ± 0.2	12.70 ± 0.2	5.00 ± 0.3	2.40 ± 0.2	2.20 ± 0.2	7.60 ± 0.3
SPS5022	15.0 ± 0.3	18.40 ± 0.3	7.00 ± 0.5	2.40 ± 0.2	2.20 ± 0.2	13.3 ± 0.3

LAND PATTERN



	SPS2012	SPS3308	SPS3316	SPS5022
G	5.70 mm	7.30 mm	7.30 mm	12.70 mm
H	2.20 mm	2.80 mm	2.80 mm	2.80 mm
I	2.40 mm	3.00 mm	3.00 mm	3.00 mm

ELECTRICAL SPECIFICATIONS

SPS2012 SERIES

Part Number	L (μH)	Tol % ±	DCR max (Ω)	Rated Current (A)
SPS2012-2R2M	2.2	20	0.040	2.50
SPS2012-3R9M	3.9	20	0.055	2.10
SPS2012-5R6M	5.6	20	0.065	1.95
SPS2012-8R2M	8.2	20	0.080	1.75
SPS2012-100M	10	20	0.100	1.50
SPS2012-120M	12	20	0.120	1.40
SPS2012-150M	15	20	0.140	1.30
SPS2012-180L	18	15	0.160	1.20
SPS2012-220L	22	15	0.180	1.10
SPS2012-270L	27	15	0.200	1.00
SPS2012-330L	33	15	0.240	0.92
SPS2012-390L	39	15	0.260	0.84
SPS2012-470L	47	15	0.280	0.75
SPS2012-560K	56	10	0.380	0.68
SPS2012-680K	68	10	0.440	0.60
SPS2012-820K	82	10	0.550	0.54
SPS2012-101K	100	10	0.600	0.50
SPS2012-121K	120	10	0.750	0.45
SPS2012-151K	150	10	0.900	0.40
SPS2012-181K	180	10	1.050	0.35
SPS2012-221K	220	10	1.180	0.30
SPS2012-271K	270	10	1.400	0.27
SPS2012-331K	330	10	1.800	0.24
SPS2012-391K	390	10	2.100	0.22
SPS2012-471K	470	10	2.250	0.20
SPS2012-561K	560	10	3.000	0.18
SPS2012-681K	680	10	3.400	0.17
SPS2012-821K	820	10	4.000	0.16
SPS2012-102K	1000	10	5.000	0.15

SPS5022 SERIES

Part Number	L (μH)	Tol % ±	DCR max (Ω)	Rated Current (A)
SPS5022-100M	10	20	0.030	4.00
SPS5022-150M	15	20	0.035	3.60
SPS5022-220M	22	20	0.045	3.15
SPS5022-330M	33	20	0.060	2.80
SPS5022-470M	47	20	0.080	2.45
SPS5022-680M	68	20	0.115	2.00
SPS5022-101M	100	20	0.180	1.70
SPS5022-151M	150	20	0.220	1.35
SPS5022-221M	220	20	0.320	1.15
SPS5022-331M	330	20	0.500	0.90
SPS5022-471M	470	20	0.750	0.75
SPS5022-681M	680	20	1.100	0.65
SPS5022-102M	1000	20	1.500	0.55

SPS3308 SERIES

Part Number	L (μH)	Tol % ±	DCR max (Ω)	Rated Current (A)
SPS3308-2R2M	2.2	20	0.045	3.50
SPS3308-3R0M	3.0	20	0.062	3.00
SPS3308-3R9M	3.9	20	0.070	2.80
SPS3308-4R7M	4.7	20	0.078	2.50
SPS3308-6R8M	6.8	20	0.100	2.20
SPS3308-100M	10	20	0.145	2.00
SPS3308-120M	12	20	0.185	1.75
SPS3308-150M	15	20	0.200	1.50
SPS3308-180M	18	20	0.270	1.40
SPS3308-220M	22	20	0.300	1.30
SPS3308-270M	27	20	0.400	1.20
SPS3308-330M	33	20	0.450	1.10
SPS3308-390M	39	20	0.560	0.95
SPS3308-470M	47	20	0.650	0.80
SPS3308-560M	56	20	0.680	0.75
SPS3308-680M	68	20	0.800	0.70
SPS3308-820M	82	20	1.200	0.65
SPS3308-101M	100	20	1.400	0.60
SPS3308-121M	120	20	1.520	0.55
SPS3308-151M	150	20	1.800	0.50
SPS3308-181M	180	20	2.200	0.45
SPS3308-221M	220	20	2.200	0.40
SPS3308-271L	270	15	3.100	0.35
SPS3308-331L	330	15	3.600	0.30
SPS3308-391L	390	15	4.600	0.25
SPS3308-471L	470	15	5.100	0.20

SPS3316 SERIES

Part Number	L (μH)	Tol % ±	DCR max (Ω)	Rated Current (A)
SPS3316-1R0M	1.0	20	0.021	5.00
SPS3316-1R5M	1.5	20	0.022	4.50
SPS3316-2R2M	2.2	20	0.027	3.10
SPS3316-3R0M	3.0	20	0.030	2.90
SPS3316-4R7M	4.7	20	0.040	2.50
SPS3316-6R8M	6.8	20	0.055	2.20
SPS3316-100M	10	20	0.065	2.00
SPS3316-120M	12	20	0.080	1.80
SPS3316-150M	15	20	0.085	1.70
SPS3316-180L	18	15	0.090	1.60
SPS3316-220L	22	15	0.100	1.40
SPS3316-270L	27	15	0.120	1.30
SPS3316-330L	33	15	0.160	1.20
SPS3316-390L	39	15	0.180	1.05
SPS3316-470L	47	15	0.190	1.00
SPS3316-560L	56	15	0.210	0.90
SPS3316-680L	68	15	0.340	0.82
SPS3316-820L	82	15	0.380	0.75
SPS3316-101K	100	10	0.420	0.68
SPS3316-121K	120	10	0.460	0.60
SPS3316-151K	150	10	0.520	0.55
SPS3316-181K	180	10	0.700	0.50
SPS3316-221K	220	10	0.800	0.45
SPS3316-271K	270	10	1.100	0.40
SPS3316-331K	330	10	1.200	0.35
SPS3316-391K	390	10	1.400	0.33