

## SPS0805 SERIES ~ Power Chip Inductors

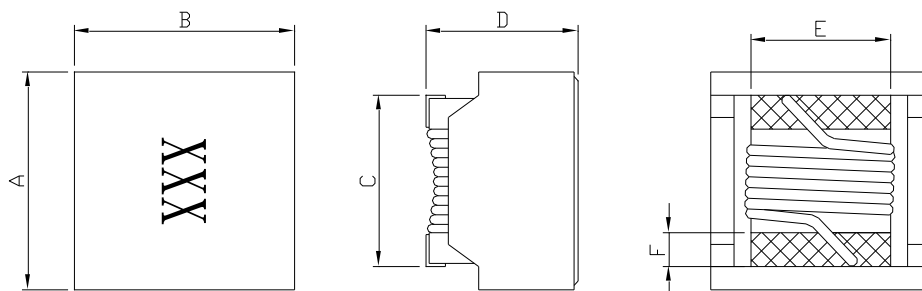


### PART NUMBERING SYSTEM

<b>SPS</b>	<b>0805</b>	—	<b>100M</b>	—	<b>LF</b>
TYPE	DIMENSIONS		INDUCTANCE		LEAD FREE

### SHAPES AND DIMENSIONS

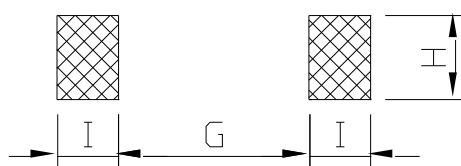
UNIT : mm



A=3.38 Max. B=3.0 Max. C=2.03 Ref. D=2.00 Max. E=1.27 Ref. F=0.51 Ref.

### RECOMMENDED PATTERNS

UNIT : mm



G=0.76 Ref. H=1.78 Ref. I=1.02 Ref.

### FEATURE :

1. Economical alternative to larger power inductors
2. Low Profile ( 3.38x3.0mm Max , 2.0mm Max. height )
3. Magnetically shielded construction .
4. Specially designed for best pick and place handling
5. Saturation current ratings up to 900 mAmps
6. Inductance values from 1  $\mu$ H to 330  $\mu$ H

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### SPECIFICATION TABLE

PART NUMBER	INDUCTANCE ( $\mu$ H)	Testing Frequency	Q. Min.	DCR ( $\Omega$ ) (Max.)	SRF (MHz) Typ.	Isat (A)	Irms (A)
SPS0805-1R0M-LF	1.0 $\pm$ 20%	100KHz 0.1V	21@1MHz	0.14	340	0.90	1.60
SPS0805-1R5M-LF	1.5 $\pm$ 20%	100KHz 0.1V	21@1MHz	0.18	265	0.85	1.30
SPS0805-2R7M-LF	2.7 $\pm$ 20%	100KHz 0.1V	21@1MHz	0.33	190	0.60	0.88
SPS0805-3R3M-LF	3.3 $\pm$ 20%	100KHz 0.1V	21@1MHz	0.46	180	0.55	0.70
SPS0805-3R9M-LF	3.9 $\pm$ 20%	100KHz 0.1V	21@1MHz	0.72	165	0.50	0.61
SPS0805-4R7M-LF	4.7 $\pm$ 20%	100KHz 0.1V	21@1MHz	0.81	155	0.43	0.59
SPS0805-5R6M-LF	5.6 $\pm$ 20%	100KHz 0.1V	21@1MHz	0.91	143	0.38	0.57
SPS0805-6R8M-LF	6.8 $\pm$ 20%	100KHz 0.1V	21@1MHz	1.26	118	0.32	0.46
SPS0805-100M-LF	10 $\pm$ 20%	100KHz 0.1V	21@1MHz	1.45	66	0.27	0.43
SPS0805-150M-LF	15 $\pm$ 20%	100KHz 0.1V	21@1MHz	1.90	34	0.22	0.34
SPS0805-220M-LF	22 $\pm$ 20%	100KHz 0.1V	25@1MHz	2.48	22	0.18	0.33
SPS0805-330M-LF	33 $\pm$ 20%	100KHz 0.1V	25@1MHz	3.00	17	0.16	0.28
SPS0805-470M-LF	47 $\pm$ 20%	100KHz 0.1V	25@1MHz	3.85	15	0.15	0.26
SPS0805-680M-LF	68 $\pm$ 20%	100KHz 0.1V	28@1MHz	4.42	12	0.12	0.24
SPS0805-820M-LF	82 $\pm$ 20%	100KHz 0.1V	30@1MHz	6.00	12	0.11	0.21
SPS0805-101M-LF	100 $\pm$ 20%	100KHz 0.1V	32@1MHz	6.45	9.0	0.10	0.19
SPS0805-121M-LF	120 $\pm$ 20%	100KHz 0.1V	32@1MHz	7.12	7.7	0.10	0.18
SPS0805-151M-LF	150 $\pm$ 20%	100KHz 0.1V	32@1MHz	7.70	5.0	0.08	0.18
SPS0805-221M-LF	220 $\pm$ 20%	100KHz 0.1V	32@1MHz	12.0	5.0	0.07	0.14
SPS0805-331M-LF	330 $\pm$ 20%	100KHz 0.1V	32@1MHz	18.9	3.5	0.06	0.11

- Isat: DC current at which the inductance drops 10% (typ) from its value without current.
- Irms: Average current for 40°C temperature rise from 25°C ambient .
- RoHS tin-silver-copper (95.5/4/0.5)
- Operating temperature range -40°C to +105°C, Electrical specifications at 25°C.
- Packing : 7" reel, machine-ready ,embossed plastic tape ( 1,500 parts per full reel)  
 13" reel, machine-ready ,embossed plastic tape ( 7,500 parts per full reel).