



## High SRF Power Chip Inductors (Filter Inductor)~SPS1812

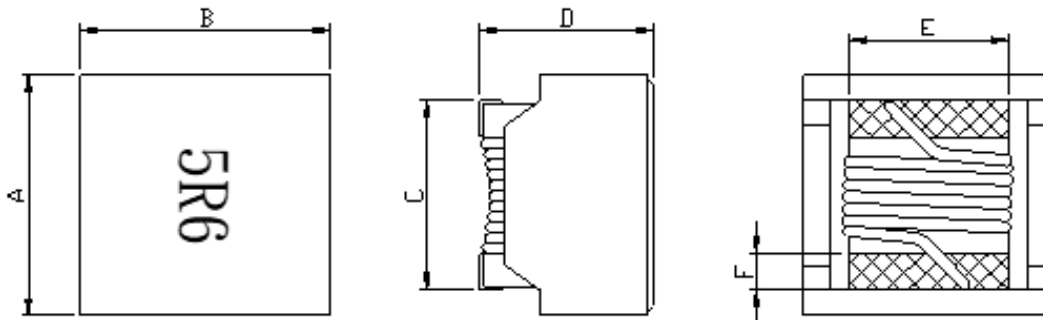


### PART NUMBERING SYSTEM

<b>SPS</b>	<b>1 8 1 2</b>	—	<b>1 R 0 M</b>	—	<b>LF</b>
TYPE	DIMENSIONS		INDUCTANCE		LEAD FREE

### SHAPES AND DIMENSIONS

UNIT : mm



**A= 5.87 Max. B= 4.98 Max. C= 5.2 Ref. D= 4.2 Max.**

### Features:

- Optimized for High-Performance Transmit and Receive Filters
- Low DC Resistance for Enhanced Efficiency
- Magnetic Shielding for Reduced EMI
- Compact Design with a Height of Just 4.2 mm

### Applications:

**DC-DC Converters:** Voltage regulation and current smoothing in compact power supplies.

**RF Circuits:** High SRF makes them suitable for filtering and matching in RF circuits.

**EMI Filtering:** Mitigating electromagnetic interference in sensitive circuits.

**Signal Filtering:** High inductance and low resistance provide effective noise suppression and signal conditioning.

**Automotive Systems:** High durability and magnetic shielding for automotive-grade performance.

**Medical Devices:** High efficiency and compact size suit medical-grade electronics.



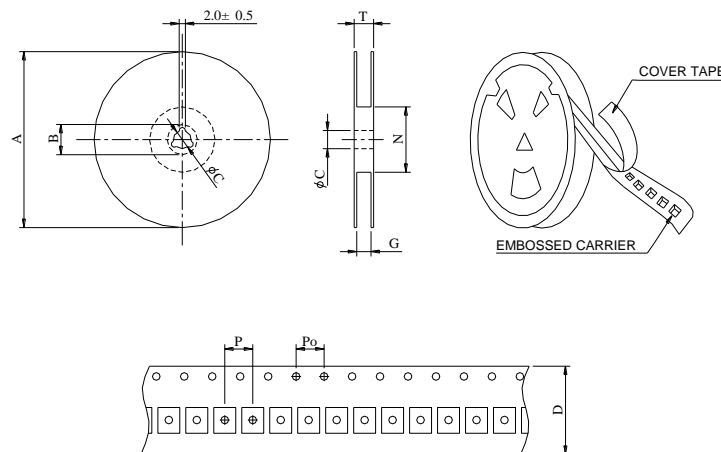
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### SPECIFICATION TABLE

PART NUMBER	INDUCTANCE (μH)	Testing Frequency	Q. Min.	DCR (Ω) (Max.)	SRF (MHz) Min.	Isat (A)
SPS1812-2R2M-LF	2.2±20%	1MHz	35@1MHz	0.10	170	1.7
SPS1812-4R7M-LF	4.7±20%	1MHz	35@1MHz	0.11	140	1.15
SPS1812-5R6M-LF	5.6±20%	1MHz	30@1MHz	0.22	110	1.0
SPS1812-100M-LF	10±20%	1MHz	35@1MHz	0.17	70	0.71
SPS1812-331M-LF	330±20%	1MHz	18@1MHz	5.50	5.5	0.15
SPS1812-471M-LF	470±20%	1MHz	16@1MHz	5.90	4.0	0.12
SPS1812-561M-LF	560±20%	1MHz	40@1MHz	6.10	3.0	0.11

- Isat: DC current at which the inductance drops 15% (Max) from its value without current.
- Irms: Average current for 40°C temperature rise from 25°C ambient .
- Operating temperature range -40°C to +105°C, Electrical specifications at 25°C.
- Packing : 13" reel, machine-ready ,embossed plastic tape ( 1,500 parts per full reel).

### PACKAGING SPECIFICATION



SERIES	STAYLE	Q'TY (PCS)	DIMENSIONS (m/m)								
			A	B±0.8	C±0.5	D	G <sup>+0</sup>	N <sup>-0</sup>	P	Po	T
SPS1812	13-24	1,500	330	21	13	12	12.4	50	8	4	18.4