

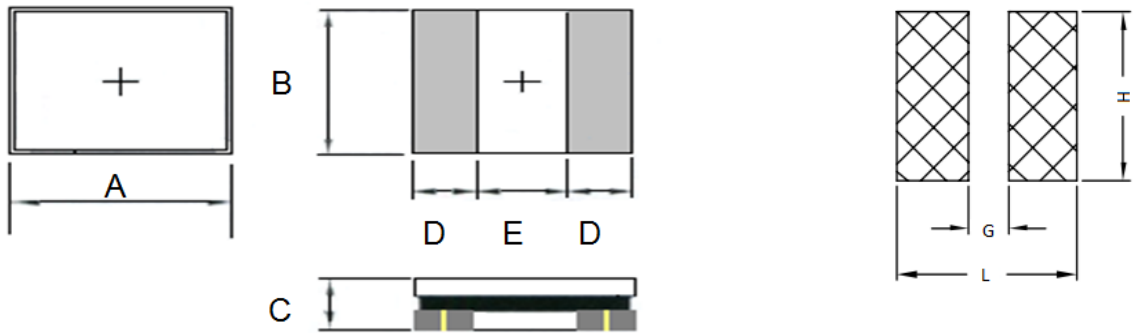
1. Part No. Expression:

**S P S 2 0 1 6 1 0 H R 4 7 Y F**

(a)            (b)    (c) (d) (e) (f)

- (a) Series code
- (b) Dimension code
- (c) Material code
- (d) Inductance code
- (e) Tolerance Code
- (f) RoHS Compliant

2. Configuration & Dimensions : (Unit: mm)



Recommended PCB Pattern

Unit : mm

A	B	C	D	E	G	H	L
2.0 -0.1/+0.2	1.6 -0.1/+0.2	1.00 Max.	0.60 Ref.	0.80 Ref.	0.80	1.80	2.40

3. Schematic

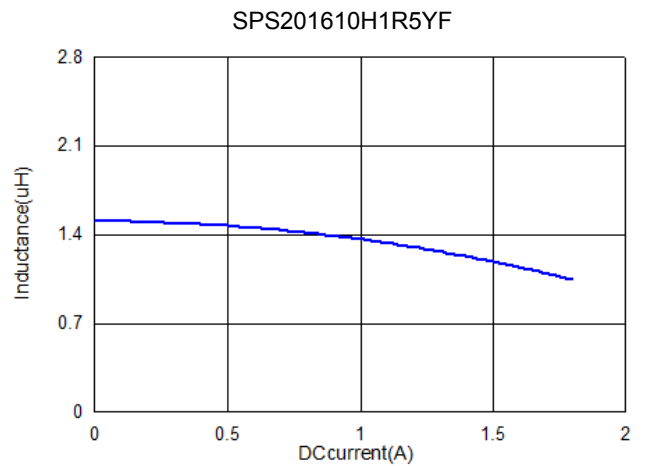
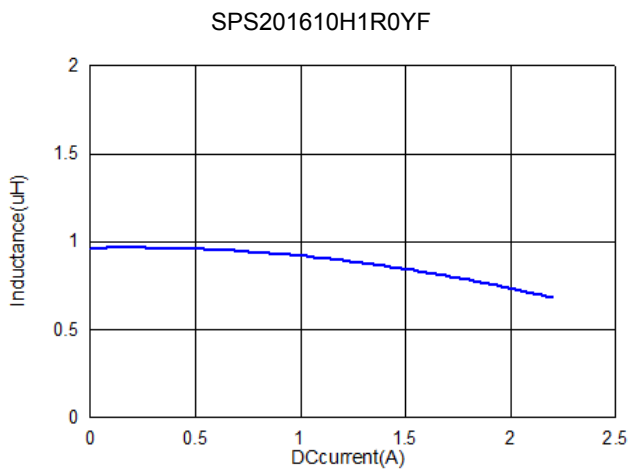
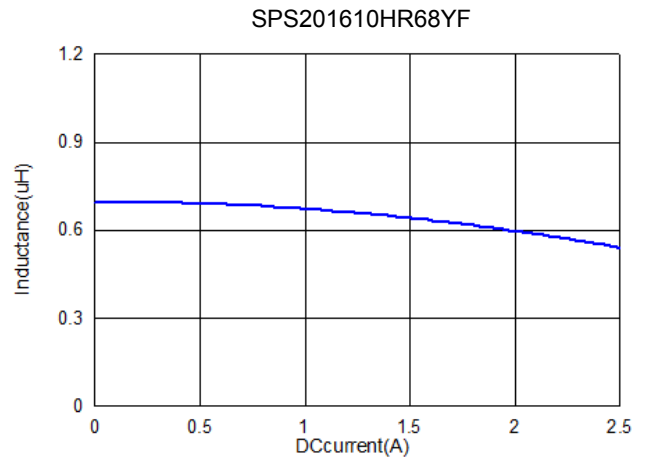
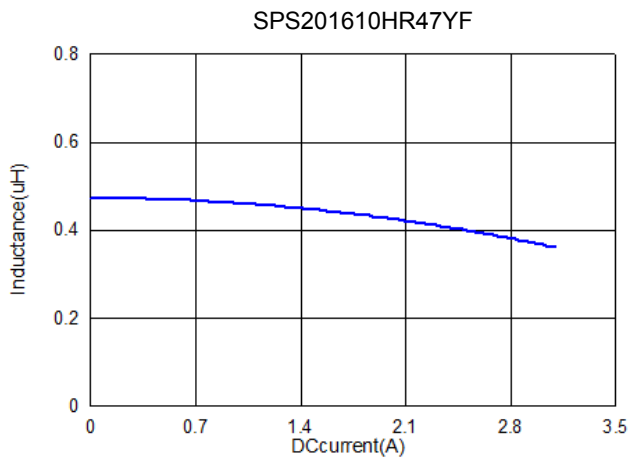


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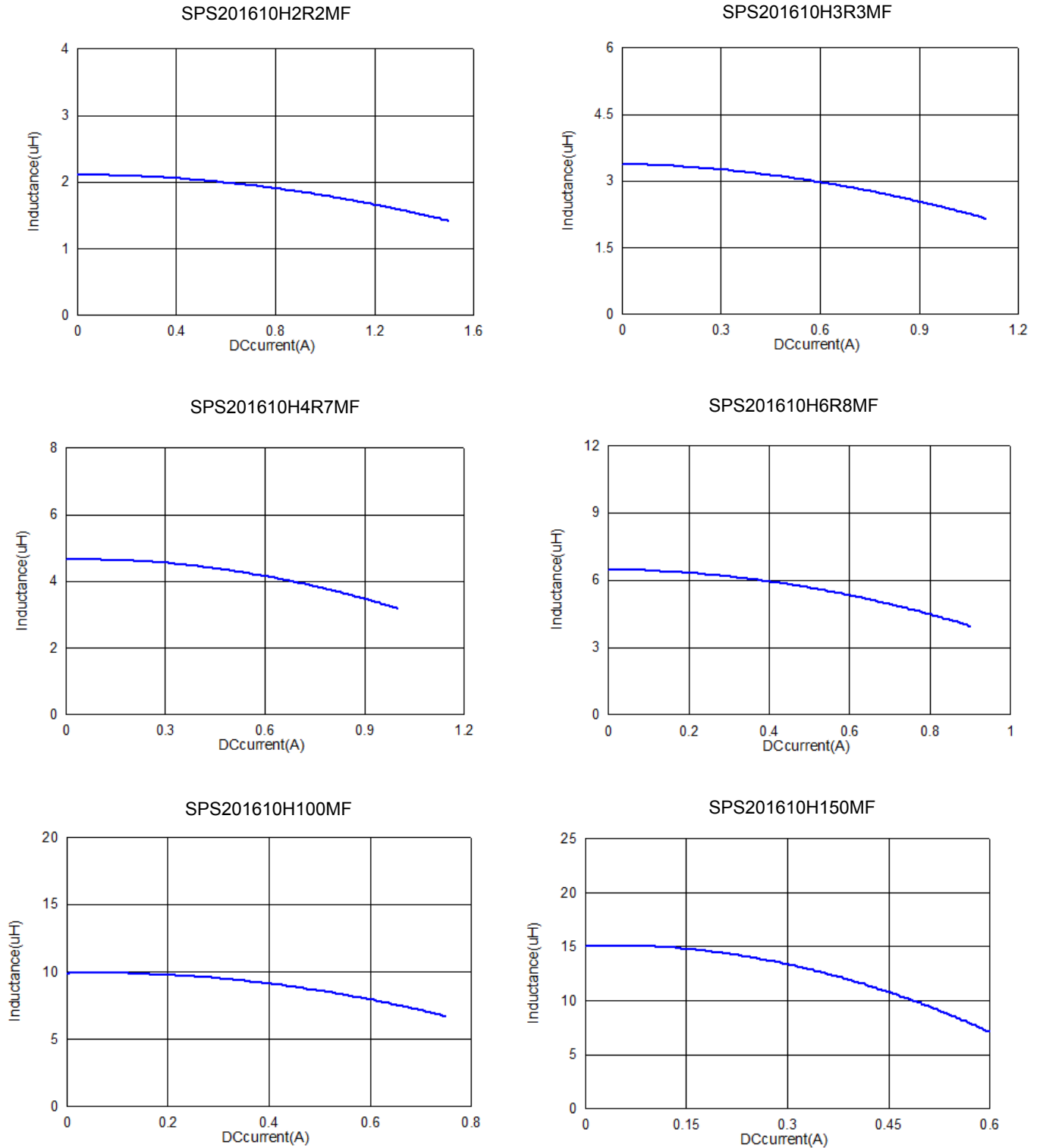
Part No.	Inductance (μH)	Test Frequency (Hz)	DCR (Ω) ± 20%	Isat (A) Max.	Irms (A) Max.
SPS201610H150MF	15.0 ± 20%	0.1V/1M	1.400	0.45	0.36
SPS201610H180MF	18.0 ± 20%	0.1V/1M	1.800	0.40	0.34
SPS201610H220MF	22.0 ± 20%	0.1V/1M	2.000	0.38	0.27

7. Characteristics Curves

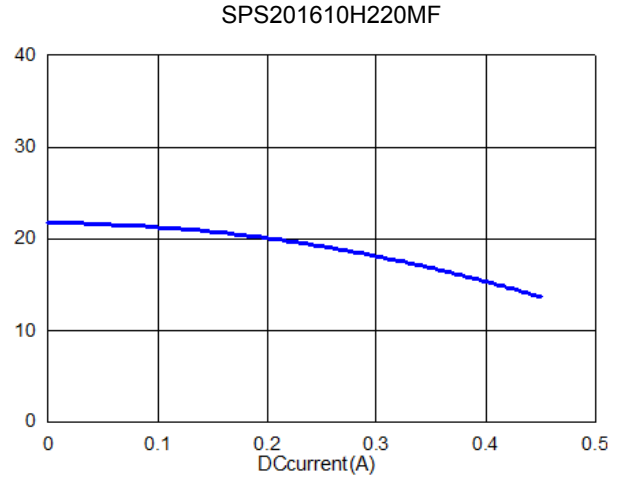
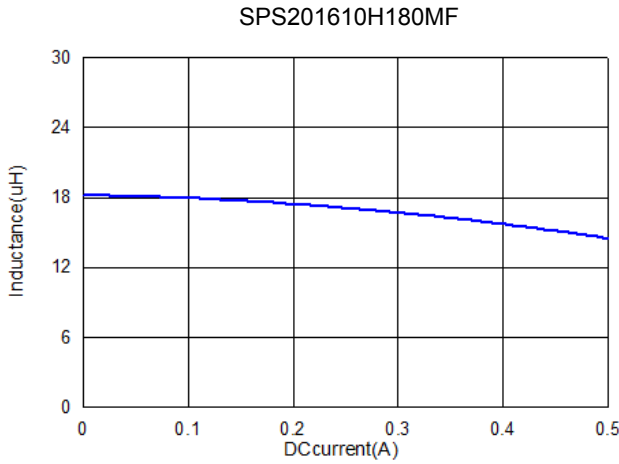


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**8. Soldering**

Mildly activated rosin fluxes are preferred. The terminations are suitable for all wave and re-flow soldering systems. If hand soldering cannot be avoided, the preferred technique is the utilization of hot air soldering tools.

**8-1 Solder Re-flow:**

Recommended temperature profiles for re-flow soldering in Figure 1.

**8-2 Soldering Iron (Figure 2):**

Products attachment with soldering iron is discouraged due to the inherent process control limitations. In the event that a soldering iron must be employed the following precautions are recommended.

Note :

- a) Preheat circuit and products to 150°C.
- b) 355°C tip temperature (Max.)
- c) Never contact the ceramic with the iron tip
- d) 1.0mm tip diameter (Max.)
- e) Use a 20 watt soldering iron with tip diameter of 1.0mm
- f) Limit soldering time to 4~5 secs.

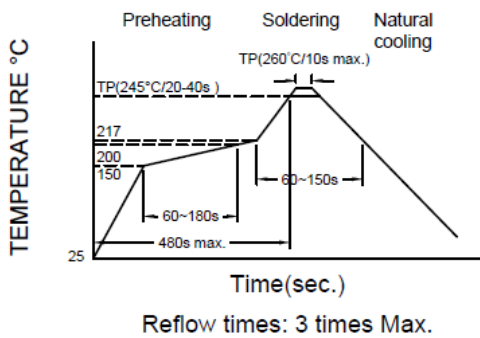


Fig.1

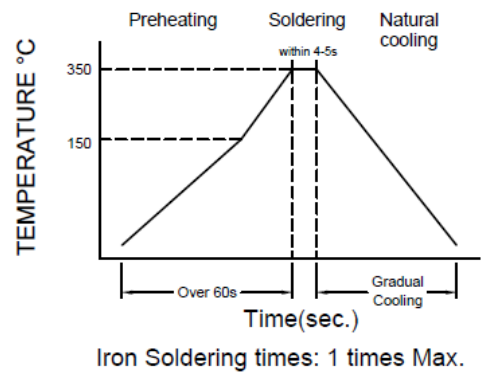
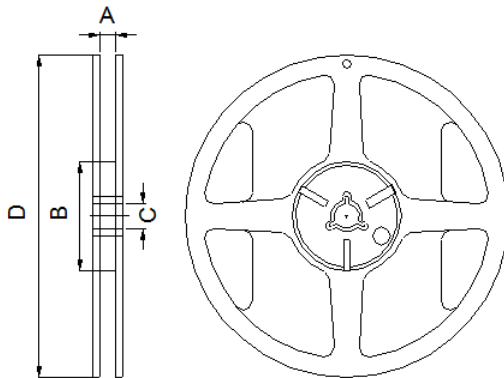


Fig.2

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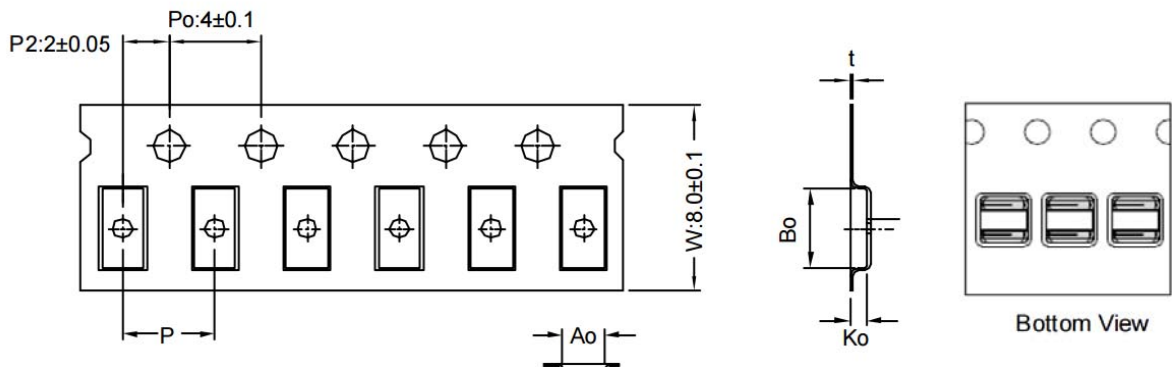
9. Packaging Information

9-1. Reel Dimension



Type	A (mm)	B (mm)	C (mm)	D (mm)
7" x 8mm	8.4 ± 1.0	50 Min.	13.0 ± 0.8	178.0 ± 2.0

9-2. Tape Dimension



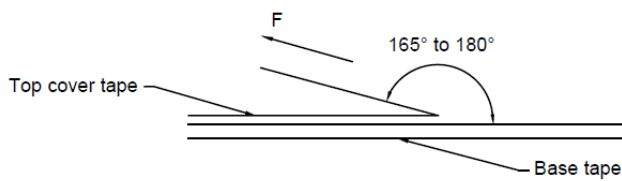
Series	Ao(mm)	Bo(mm)	Ko(mm)	P(mm)	t(mm)
SPS201610	2.00 ± 0.10	2.50 ± 0.10	1.05 ± 0.10	4.00 ± 0.10	0.23 ± 0.05

9-3. Packaging Quantity

Size	201610
Chip/ Reel	2000

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## 9-4. Tearing Off Force



The force for tearing off cover tape is 15 to 80 grams in the arrow direction under the following conditions.

Room Temp (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed (mm/min)
5 - 35	45 - 85	860 - 1060	300

### **Application Notice:**

#### 1. Storage Conditions:

To maintain the solderability of terminal electrodes:

- a) Recommended products should be used within 12 months from the time of delivery.
- b) The packaging material should be kept where no chlorine or sulfur exists in the air.

#### 2. Transportation:

- a) Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- b) Vacuum pick up is strongly recommended for individual components.
- c) Bulk handling should ensure that abrasion and mechanical shock are minimized.

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