



**THE DATASHEET OF  
SRP1205-5R6Y**





- ### Features
- Shielded construction
  - Unit height of 5.6 mm
  - Inductance range: 0.3 to 7.2  $\mu$ H
  - Current up to 18 A
  - RoHS compliant\*

This series is currently available but not recommended for new designs.

## SRP1205 Series - Shielded Power Inductors

### Electrical Specifications

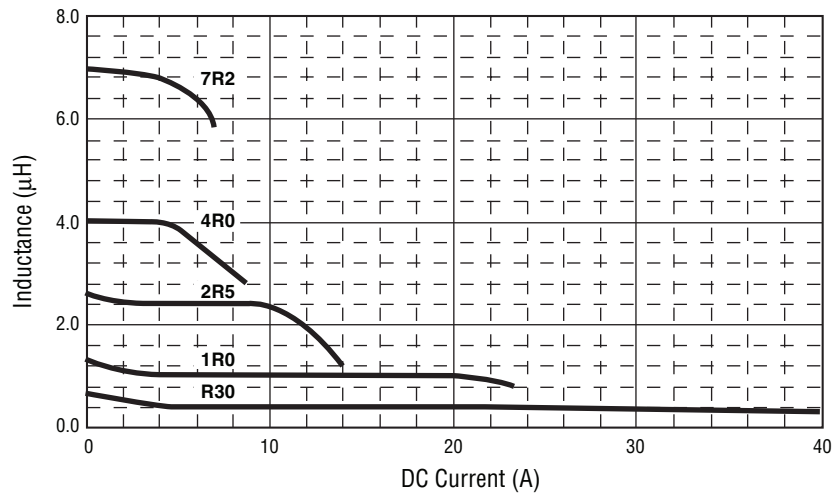
Bourns Part No.	Initial Inductance L0 ( $\mu$ H)	Inductance at Flat Point L1 ( $\mu$ H)	Flat Point Ref. (A)	SRF typ. (MHz)	I rms (A)	I sat (A)	DCR (m $\Omega$ ) Max.
SRP1205-R30Y	0.54 $\pm$ 25 %	0.30 $\pm$ 25 %	5.00	160	18.0	35.0	1.8
SRP1205-R60Y	0.85 $\pm$ 25 %	0.60 $\pm$ 25 %	5.00	95	16.0	27.0	2.5
SRP1205-1R0Y	1.25 $\pm$ 25 %	1.00 $\pm$ 25 %	5.00	75	14.0	22.0	3.4
SRP1205-1R8Y	2.00 $\pm$ 25 %	1.80 $\pm$ 25 %	2.00	55	13.0	16.0	3.4
SRP1205-2R5Y	2.70 $\pm$ 25 %	2.50 $\pm$ 25 %	2.00	40	11.5	12.0	3.4
SRP1205-3R3Y	3.50 $\pm$ 25 %	3.30 $\pm$ 25 %	2.00	40	11.0	11.8	5.4
SRP1205-4R0Y	4.20 $\pm$ 25 %	4.00 $\pm$ 25 %	3.00	35	10.5	8.3	5.4
SRP1205-5R6Y	5.80 $\pm$ 25 %	5.60 $\pm$ 25 %	2.00	30	8.5	8.0	11.4
SRP1205-7R2Y	7.40 $\pm$ 25 %	7.20 $\pm$ 25 %	2.00	30	8.3	7.5	13.5

### General Specifications

Test Voltage ..... 1 V  
 Test Frequency ..... 100 KHz  
 Reflow Soldering .. 230 °C; 50 sec. max.  
 Operating Temperature  
 ..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature  
 ..... -40 °C to +125 °C  
 Resistance to Soldering Heat  
 ..... +260 °C for 10 sec.  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM)..... N/A

<sup>1</sup> Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

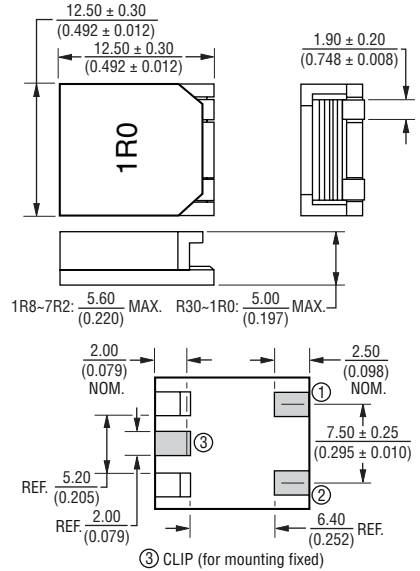
### L vs I Charts



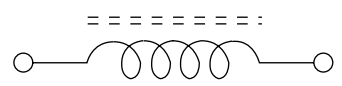
### Materials

Core ..... Ferrite ER  
 Wire ..... Enameled copper  
 Terminal ..... Cu/Ni/Sn  
 Rated Current ..... Ind. drops 20 % at Isat  
 Temperature Rise ..... 40 °C at rated Irms  
 Packaging ..... 600 pcs. per 13-inch reel

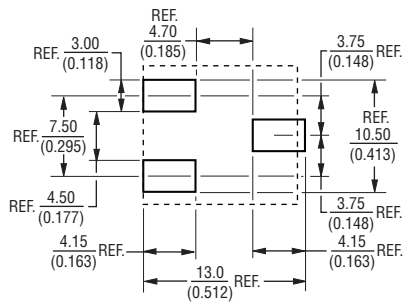
### Product Dimensions



### Electrical Schematic



### Recommended Layout



**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.  
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DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$



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