

# On-Board Type Hi-Current Power Inductors



## Ultra High Current Power Inductors SLPI Series

### SLPI Series

#### SMD Type Ultra High Current Power Inductor.



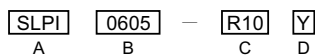
#### ■ Features

1. Lowest height in this package footprint.
2. Shielded construction.
3. Lowest DCR/  $\mu$  H, in this package size.
4. Designed for higher speed switch mode applications, requiring lower inductance and high current.
5. The products contain no lead and also support lead-free soldering.

#### ■ Applications

Excellent for power line DC-DC conversion applications used in power switching, personal computers and other handheld electronic equipment.

#### ■ Lead Free Part Numbering



- A : Series  
 B : Dimension A x C  
 C : Inductance R10=0.10uH  
 D : Inductance Tolerance M=±20%, Y=±30%

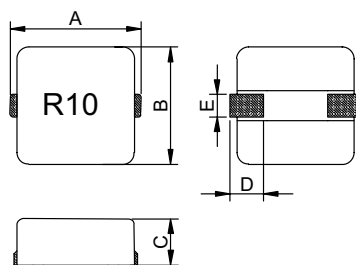
#### ● 特徵

1. 同尺寸高度最低。
2. 遮蔽式電感結構。
3. 同尺寸直流阻抗最低。
4. 適用於需求低電感值，高電流的高速電源線路應用。
5. 產品無鉛適合無鉛錫。

#### ● 應用

適合用於電源供應器、個人電腦和其他掌上型電子設備中電源線路上直流對直流整流的應用。

#### ■ Dimensions



Size					
Series	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
SLPI 0605	7.2 max.	6.8 max.	5.0 max.	1.5±0.5	2.5±0.5
SLPI 1005	10.2 max.	6.8 max.	5.0 max.	1.5±0.5	2.5±0.5
SLPI 1208	13.46 max.	12.95 max.	8.0 max.	2.54±0.5	5.0±0.5

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### ■ SLPI 0605 Series

Part Number	Inductance Lo (uH)	Test Frequency (Hz)	DCR (mΩ) max.	Irms (A) max.	Isat (A) max.
SLPI 0605-R10Y	0.10±30%	0.25V/1M	0.50	30	37
SLPI 0605-R15Y	0.15±30%	0.25V/1M	0.50	24	30
SLPI 0605-R20Y	0.20±30%	0.25V/1M	0.50	19	24

### ■ SLPI 1005 Series

Part Number	Inductance Lo (uH)	Test Frequency (Hz)	DCR (mΩ) max.	Irms (A) max.	Isat (A) max.
SLPI 1005-R10M	0.10±20%	0.25V/1M	0.65	40	50
SLPI 1005-R15M	0.15±20%	0.25V/1M	0.65	40	42
SLPI 1005-R20M	0.20±20%	0.25V/1M	0.65	30	40

### ■ SLPI 1208 Series

Part Number	Inductance Lo (uH)	Test Frequency (Hz)	DCR (mΩ) max.	Irms (A) max.	Isat (A) max.
SLPI 1208-R15Y	0.15±30%	0.1V/500K	0.60	50	55
SLPI 1208-R21M	0.21±20%	0.1V/500K	0.60	45	50
SLPI 1208-R26M	0.26±20%	0.1V/500K	0.60	40	45
SLPI 1208-R32M	0.32±20%	0.1V/500K	0.60	40	41
SLPI 1208-R44M	0.44±20%	0.1V/500K	0.60	28	30

Note:

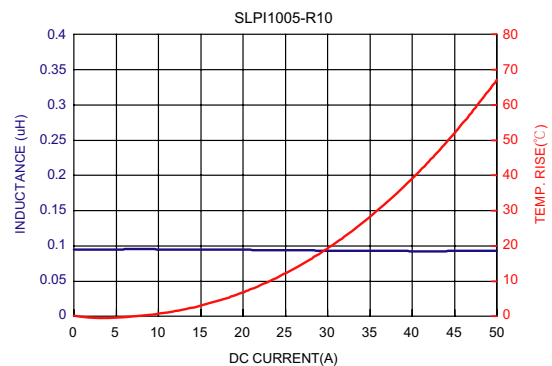
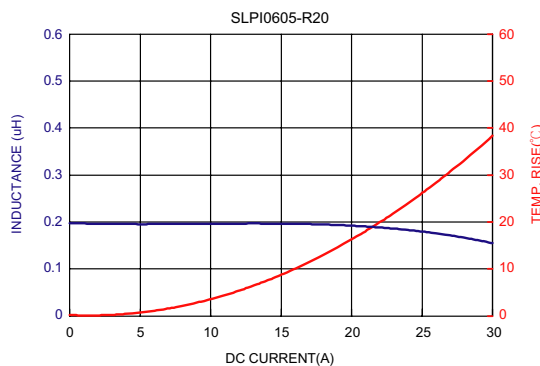
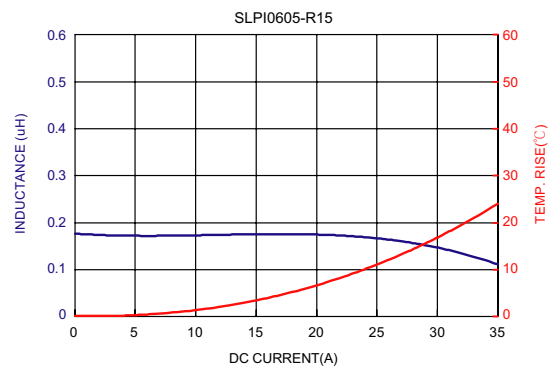
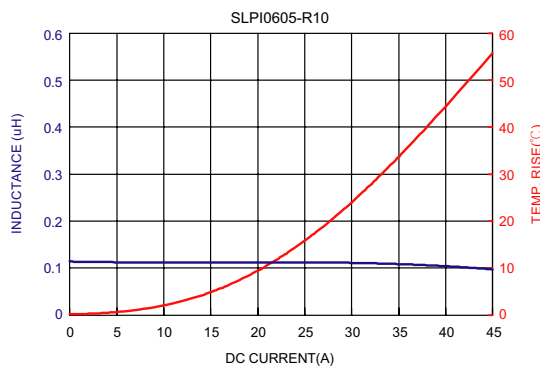
1. Testing Instrument : L:HP4192A, CH3302, CH1320, CH1320S LCR METER /Rdc:Agilent33420A MICRO OHMMETER.

2. Heat Current (Irms) will coil temperature an approximately  $\Delta T = 40^{\circ}\text{C}$  without core loss.

3. Rated Current (Isat) will cause L0 to drop approximately 20%.

The part temperature (ambient + temp rise) should not exceed  $125^{\circ}\text{C}$  under worst case operating conditions. 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.

### ■ Typical Performance Curves



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