

大电流立方电感

Shielded Power Inductor (High Current Cube Type)



特性

Characteristics

磁屏蔽

Magnetically shielded

额定电流高达27 A

Current capability up to 27 A

优良的饱和特性

Excellent saturation characteristics

应用

Application

DC/DC变换器的滤波扼流圈

Filter choke for DC/DC converter

单相和多相Buck变换器

Single and polyphase buck converter

电机，马达的滤波电路

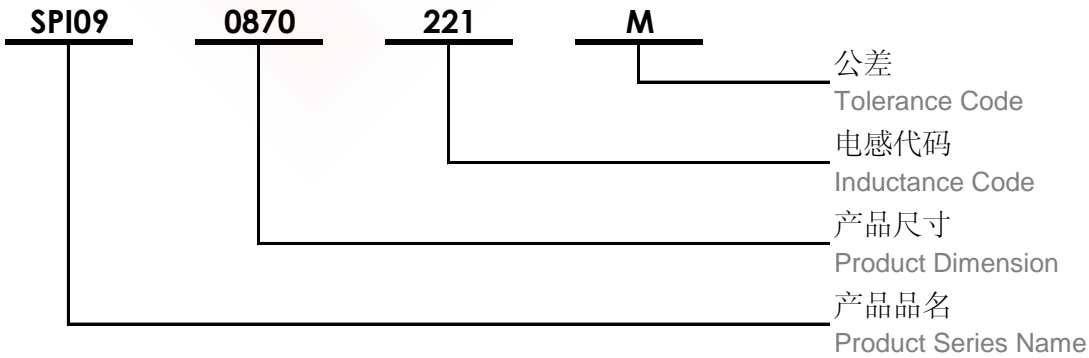
Filter choke for motor electronics

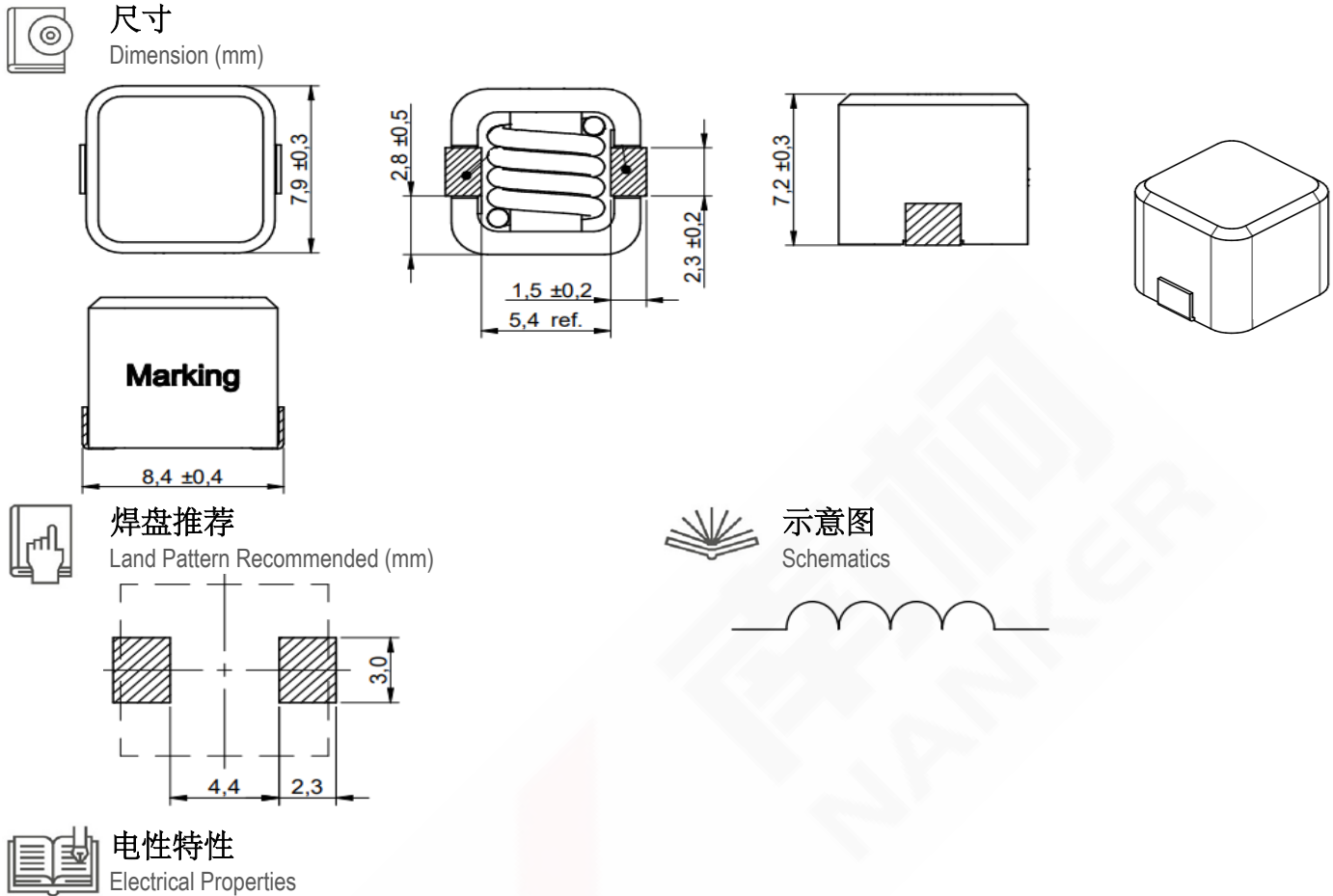
DC/DC变换器输入滤波电感

Input filter inductor for DC/DC converter

产品品名介绍

Product Number Structure





型号 Part No.	电感 Inductance μH	温升电流 Rated Current I _r typ 50°C (A)	直流电阻 DC Resistance DCR _{max} (mΩ)	饱和电流 Saturation Current I _{sat} typ (A)	磁芯材料 Core Material	卷盘数量 Taping Reel Qty. pcs
SPI09-0807-R30M	0.30 ±20%	20.50	2.70	40.30	Ferrite	500
SPI09-0807-R47M	0.47 ±20%	19.00	3.10	31.30	Ferrite	500
SPI09-0807-R68M	0.68 ±20%	19.00	3.10	23.00	Ferrite	500
SPI09-0807-1R0M	1.00 ±20%	17.00	3.90	25.10	Ferrite	500
SPI09-0807-1R5M	1.50 ±20%	16.50	5.60	18.50	Ferrite	500
SPI09-0807-2R2M	2.20 ±20%	16.50	5.60	12.90	Ferrite	500
SPI09-0807-3R3M	3.30 ±20%	14.00	8.20	10.80	Ferrite	500
SPI09-0807-4R7M	4.70 ±20%	7.50	13.50	9.50	Ferrite	500
SPI09-0807-6R8M	6.80 ±20%	5.50	24.00	8.30	Ferrite	500
SPI09-0807-100M	10.00 ±20%	4.40	41.00	8.30	Ferrite	500

测试状态

Test Condition

☆ 电感测试条件为 100 kHz/ 10 mA

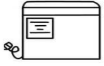
Inductance measure condition at 100 kHz/ 10 mA

☆ 工作温度: -40°C ~ +125°C

Operating Temperature: -40°C ~ +125°C

☆ 饱和电流: 电感值下降其初始值的30%时所加载的实际直流电流值

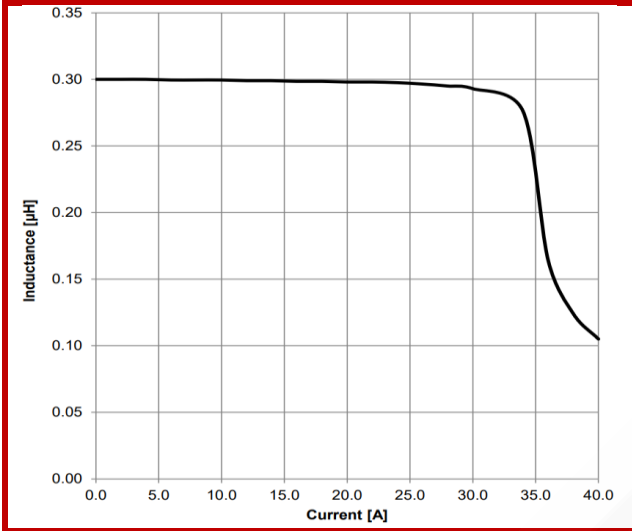
Saturation Current: The actual value of DC current when the inductance drop 30% of initial value



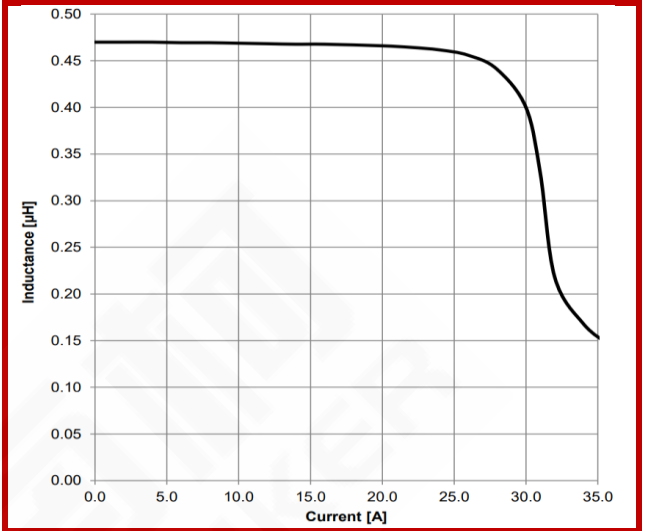
典型电感与电流特性

Typical Inductance vs. Current Characteristics

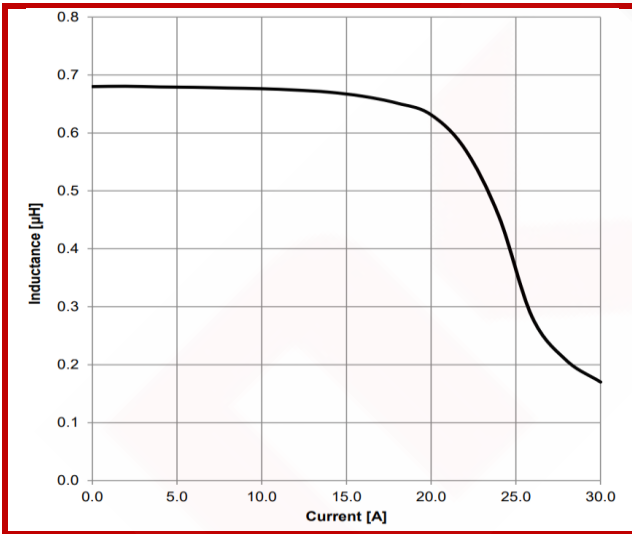
SPI09-0807-R30M



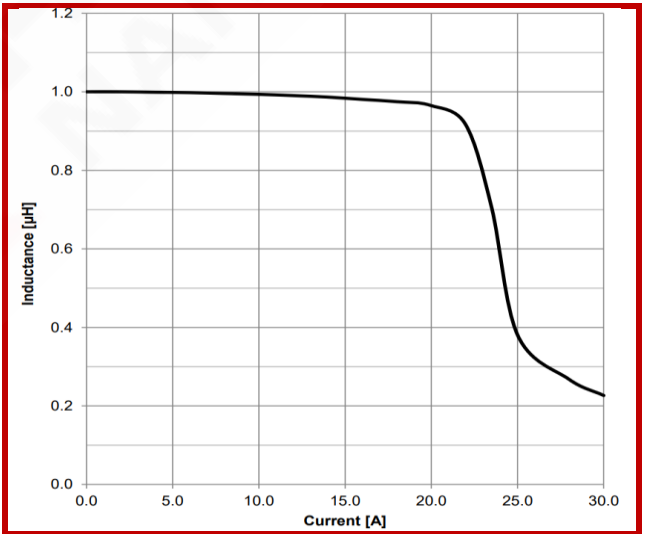
SPI09-0807-R47M



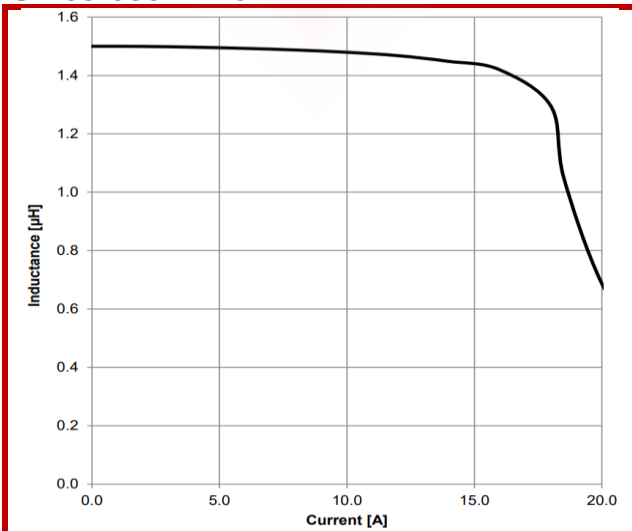
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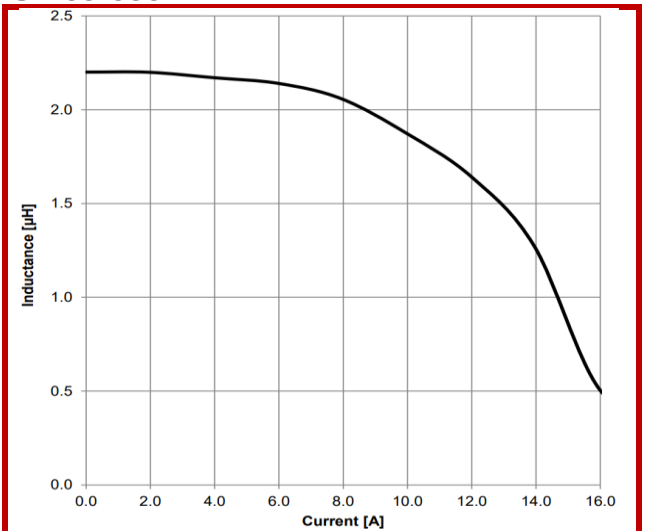
SPI09-0807-1R0M



SPI09-0807-1R5M



SPI09-0807-2R2M

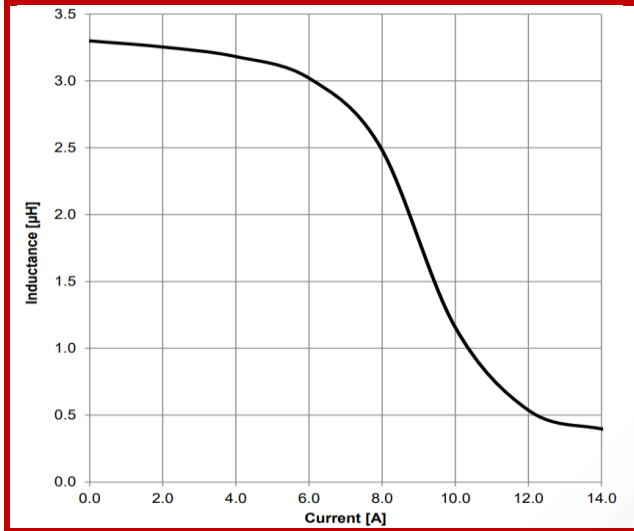




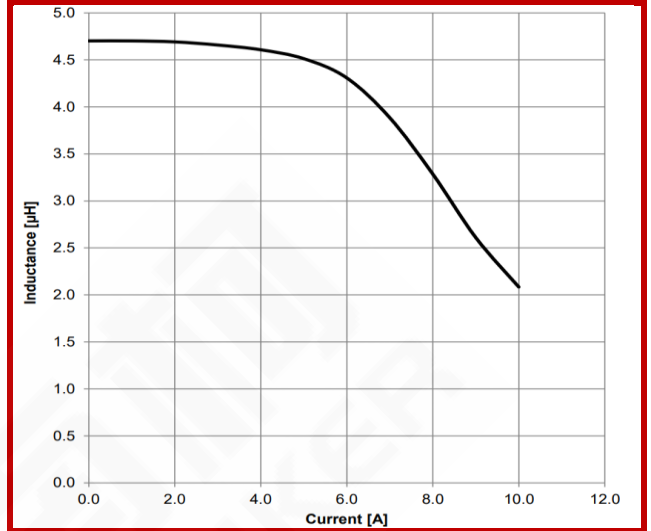
典型电感与电流特性

Typical Inductance vs. Current Characteristics

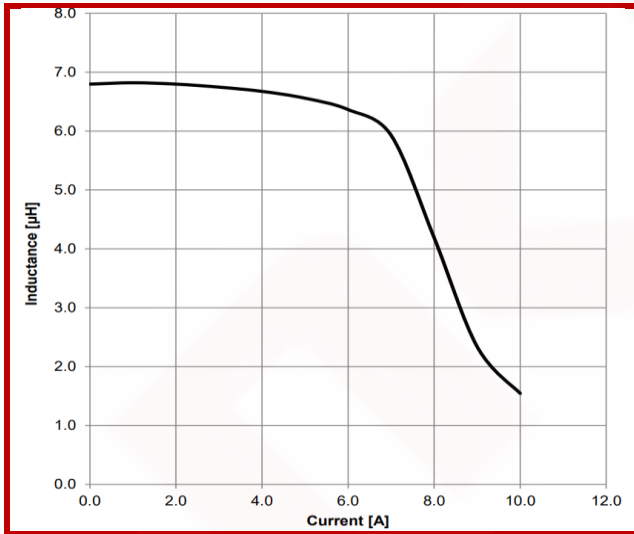
SPI09-0807-3R3M



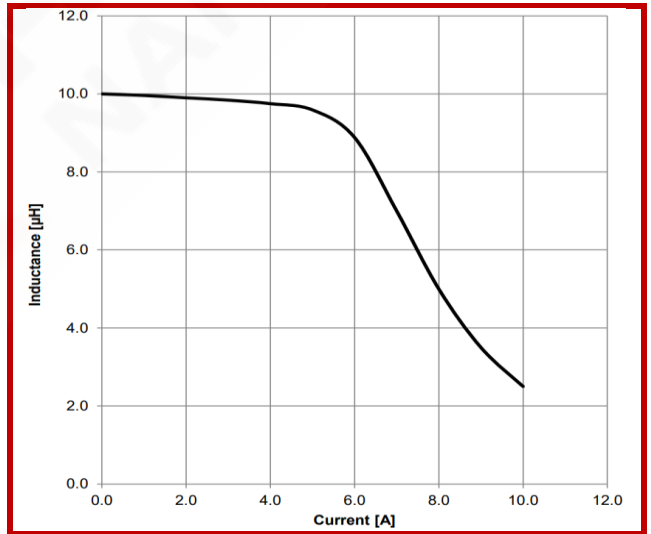
SPI09-0807-4R7M



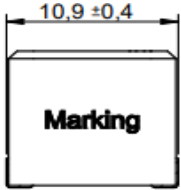
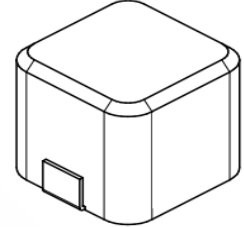
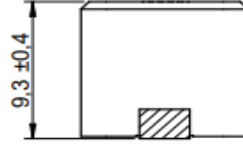
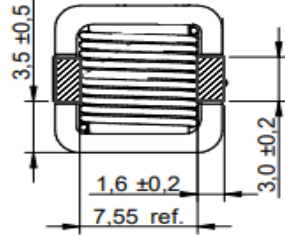
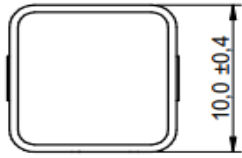
SPI09-0807-6R8M



SPI09-0807-100M



尺寸 Dimension (mm)



焊盘推荐 Land Pattern Recommended (mm)

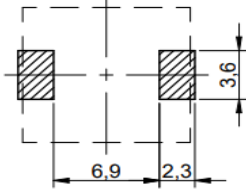


示意图 Schematics



电性特性 Electrical Properties

型号 Part No.	电感 Inductance μH	温升电流 Rated Current I _r typ 50°C (A)	直流电阻 DC Resistance DCR _{max} (mΩ)	饱和电流 Saturation Current I _{sat} typ (A)	磁芯材料 Core Material	卷盘数量 Taping Reel Qty. pcs
SPI09-1009-R22M	0.22 ±20%	21.50	1.60	96.00	Ferrite	400
SPI09-1009-R33M	0.33 ±20%	21.50	1.60	59.00	Ferrite	400
SPI09-1009-R47M	0.47 ±20%	20.50	1.85	54.90	Ferrite	400
SPI09-1009-R68M	0.68 ±20%	20.00	2.65	46.00	Ferrite	400
SPI09-1009-R82M	0.82 ±20%	20.00	2.65	41.90	Ferrite	400
SPI09-1009-1R0M	1.00 ±20%	20.00	2.65	31.10	Ferrite	400
SPI09-1009-1R5M	1.50 ±20%	18.00	4.00	31.00	Ferrite	400
SPI09-1009-2R2M	2.20 ±20%	16.50	4.80	25.60	Ferrite	400
SPI09-1009-3R3M	3.30 ±20%	14.00	7.15	22.80	Ferrite	400
SPI09-1009-4R7M	4.70 ±20%	13.00	9.90	17.90	Ferrite	400
SPI09-1009-6R8M	6.80 ±20%	11.50	15.00	16.60	Ferrite	400
SPI09-1009-8R2M	8.20 ±20%	11.50	15.00	12.50	Ferrite	400
SPI09-1009-100M	10.00 ±20%	9.00	23.10	11.70	Ferrite	400

测试状态

Test Condition

☆ 电感测试条件为 100 kHz / 10 mA

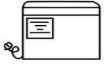
Inductance measure condition at 100 kHz / 10 mA

☆ 工作温度: -40°C ~ +125°C

Operating Temperature: -40°C ~ +125°C

☆ 饱和电流: 电感值下降其初始值的30%时所加载的实际直流电流值

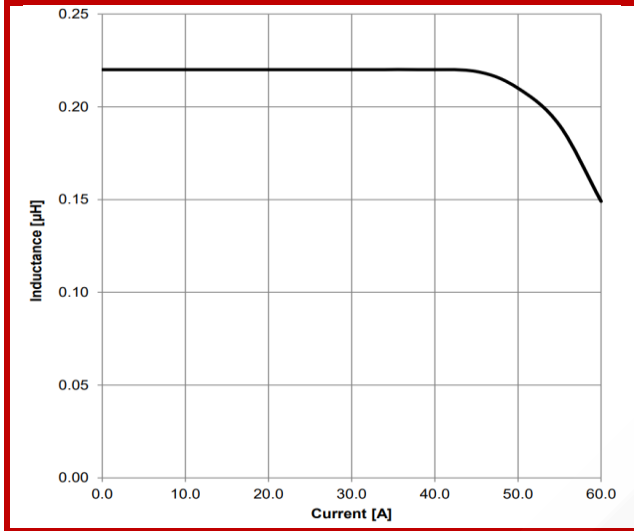
Saturation Current: The actual value of DC current when the inductance drop 30% of initial value



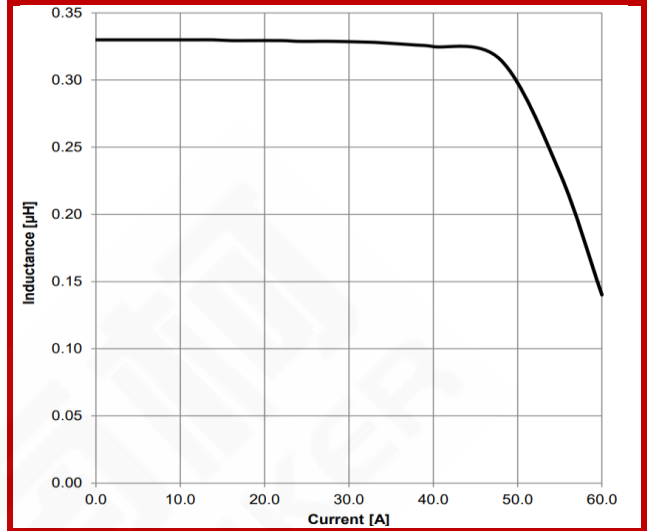
典型电感与电流特性

Typical Inductance vs. Current Characteristics

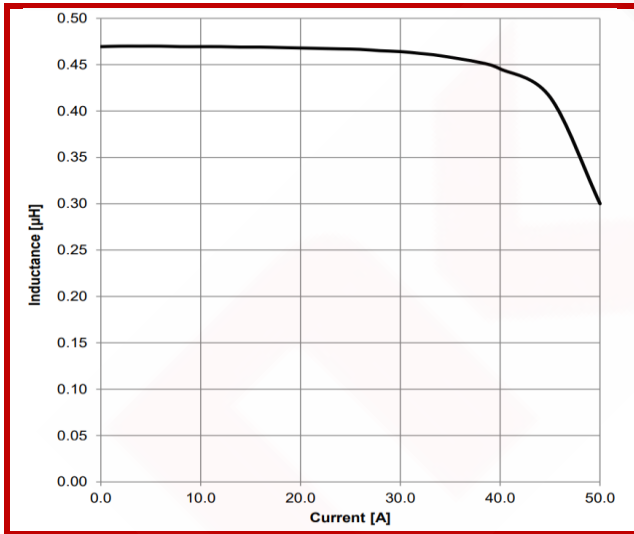
SPI09-1009-R22M



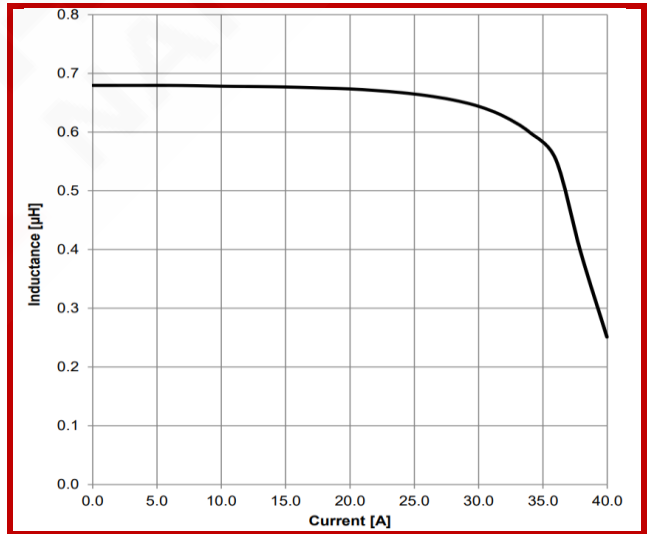
SPI09-1009-R33M



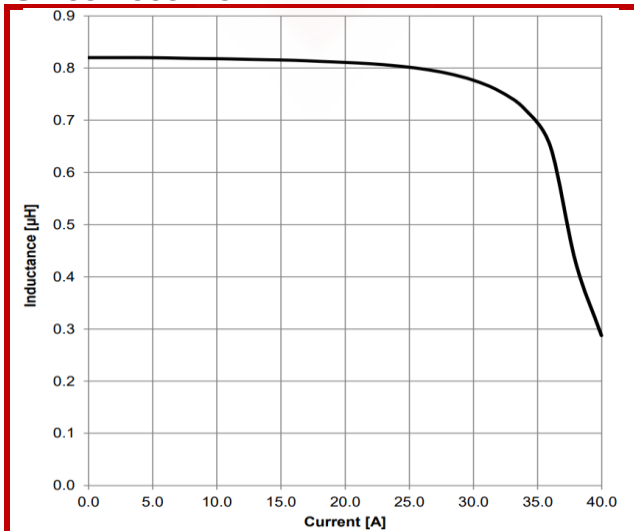
SPI09-1009-R47M



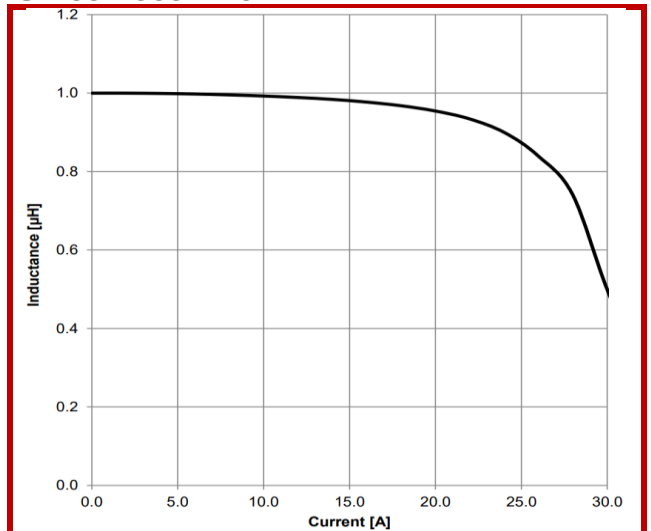
SPI09-1009-R68M



SPI09-1009-R82M



SPI09-1009-1R0M

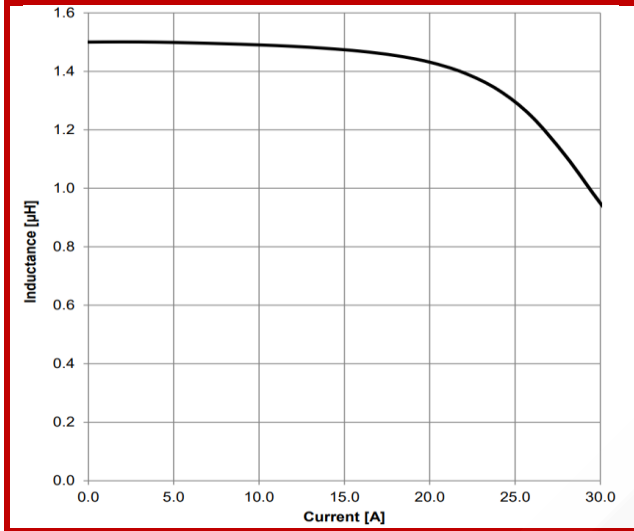




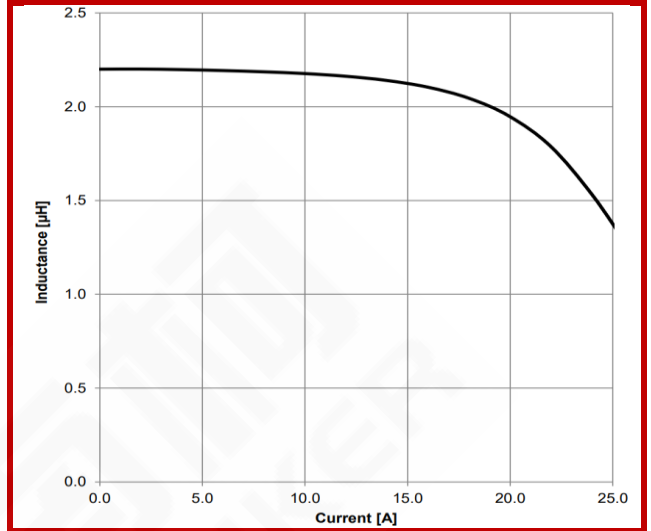
典型电感与电流特性

Typical Inductance vs. Current Characteristics

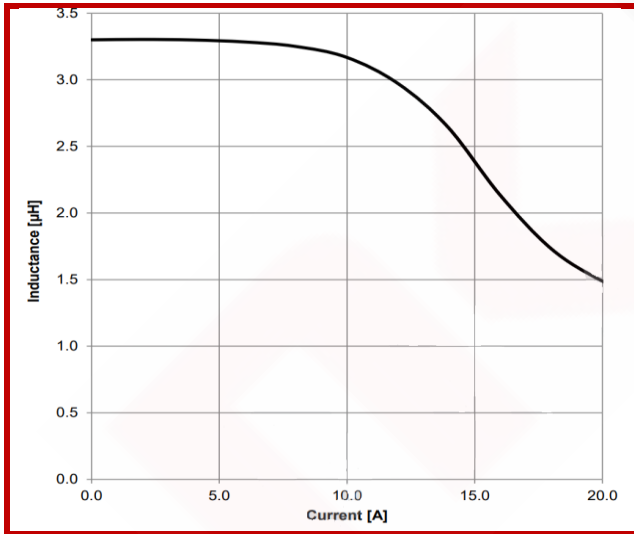
SPI09-1009-1R5M



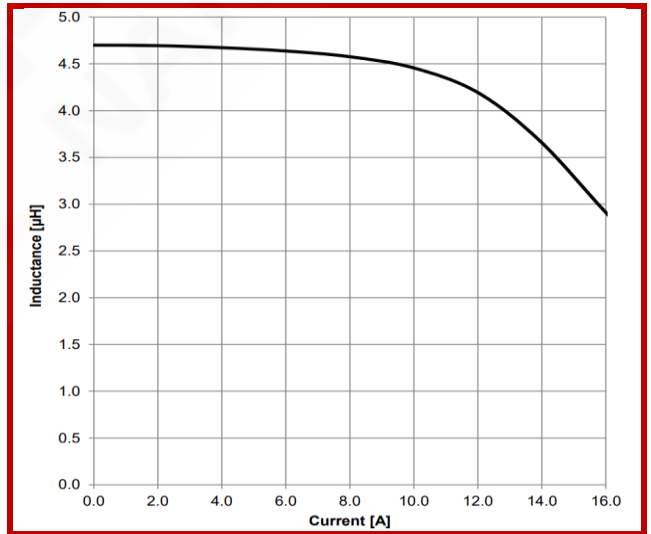
SPI09-1009-2R2M



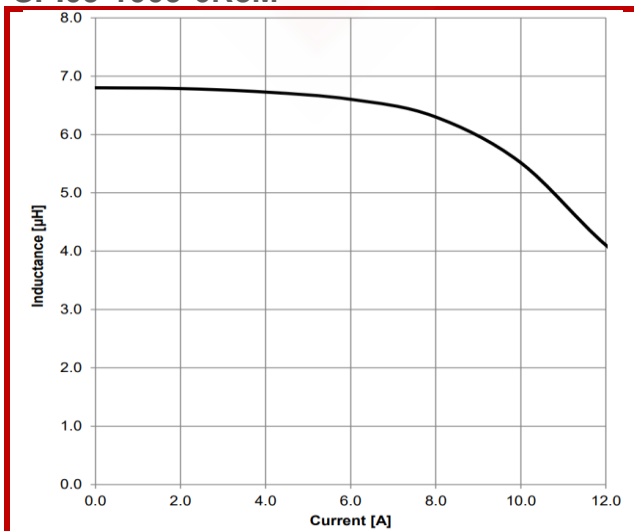
SPI09-1009-3R3M



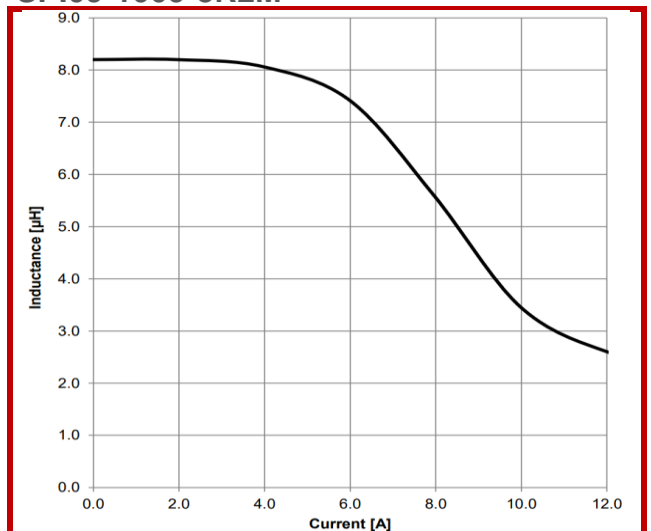
SPI09-1009-4R7M

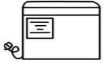


SPI09-1009-6R8M



SPI09-1009-8R2M

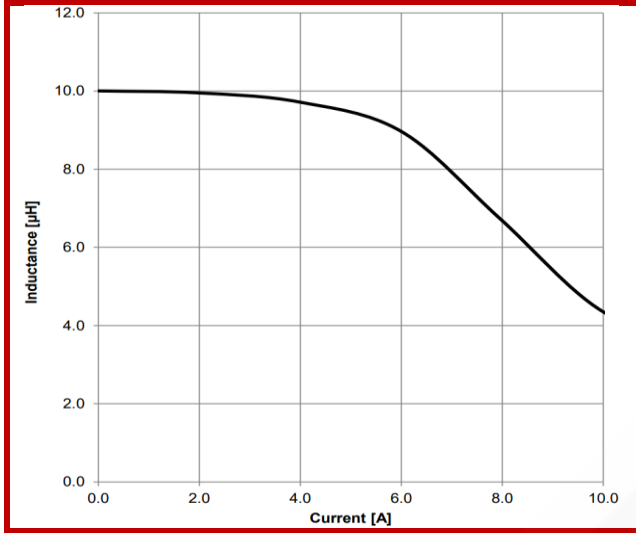




典型电感与电流特性

Typical Inductance vs. Current Characteristics

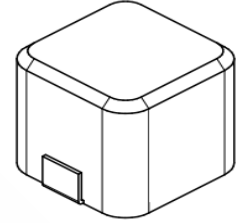
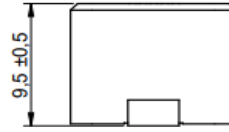
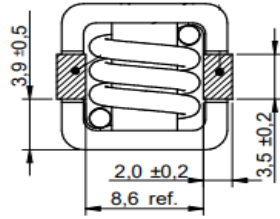
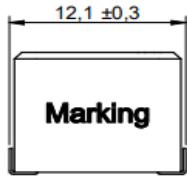
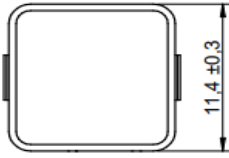
SPI09-1009-100M





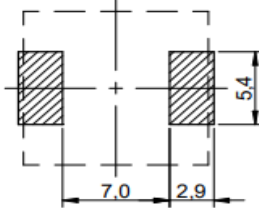
尺寸

Dimension (mm)



焊盘推荐

Land Pattern Recommended (mm)



示意图

Schematics



电性特性

Electrical Properties

型号 Part No.	电感 Inductance μH	温升电流 Rated Current I _r typ 50°C (A)	直流电阻 DC Resistance DCR _{max} (mΩ)	饱和电流 Saturation Current I _{sat} typ (A)	磁芯材料 Core Material	卷盘数量 Taping Reel Qty. pcs
SPI09-1109-R22M	0.22 ±20%	27.00	1.50	90.80	Ferrite	300
SPI09-1109-R33M	0.33 ±20%	27.00	1.50	62.10	Ferrite	300
SPI09-1109-R47M	0.47 ±20%	26.00	1.85	54.70	Ferrite	300
SPI09-1109-R68M	0.68 ±20%	26.00	1.85	39.10	Ferrite	300
SPI09-1109-R82M	0.82 ±20%	24.00	2.50	35.80	Ferrite	300
SPI09-1109-1R0M	1.00 ±20%	24.00	2.50	33.50	Ferrite	300
SPI09-1109-1R5M	1.50 ±20%	19.50	3.50	29.10	Ferrite	300
SPI09-1109-2R2M	2.20 ±20%	18.00	4.30	27.20	Ferrite	300
SPI09-1109-3R3M	3.30 ±20%	17.00	5.70	24.70	Ferrite	300
SPI09-1109-4R7M	4.70 ±20%	15.50	7.90	17.10	Ferrite	300
SPI09-1109-6R8M	6.80 ±20%	13.00	11.00	14.20	Ferrite	300
SPI09-1109-8R2M	8.20 ±20%	13.00	11.80	13.50	Ferrite	300
SPI09-1109-100M	10.00 ±20%	9.00	16.70	11.30	Ferrite	300

测试状态

Test Condition

☆ 电感测试条件为 100 kHz/ 10 mA

Inductance measure condition at 100 kHz/ 10 mA

☆ 工作温度: -40°C ~ +125°C

Operating Temperature: -40°C ~ +125°C

☆ 饱和电流: 电感值下降其初始值的30%时所加载的实际直流电流值

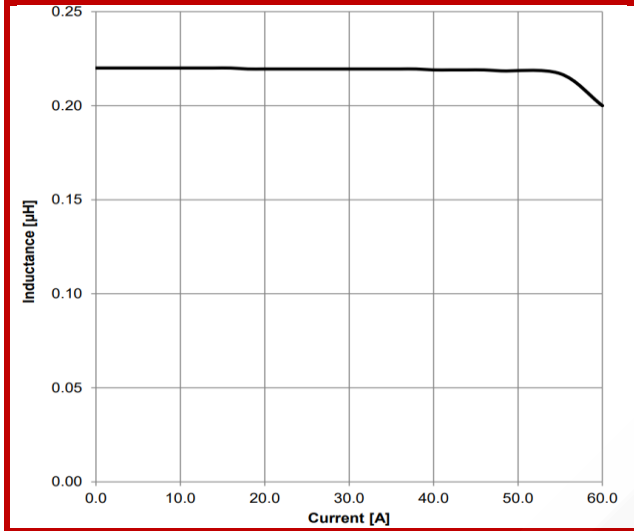
Saturation Current: The actual value of DC current when the inductance drop 30% of initial value



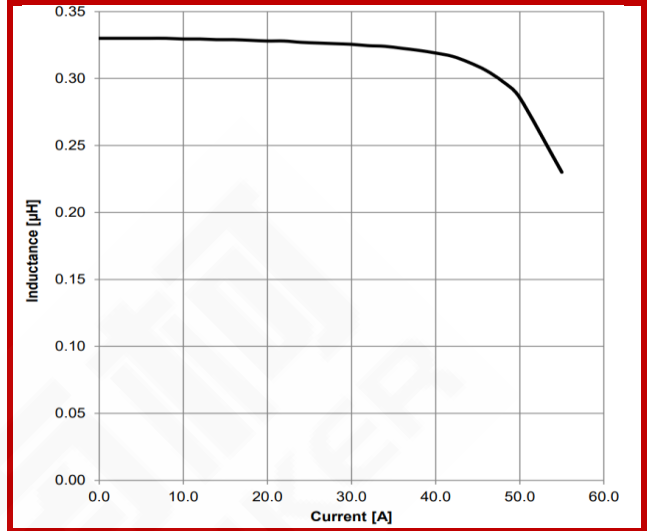
典型电感与电流特性

Typical Inductance vs. Current Characteristics

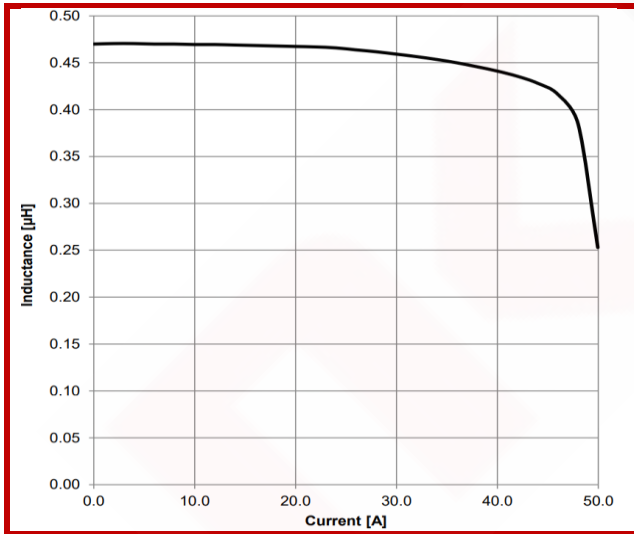
SPI09-1109-R22M



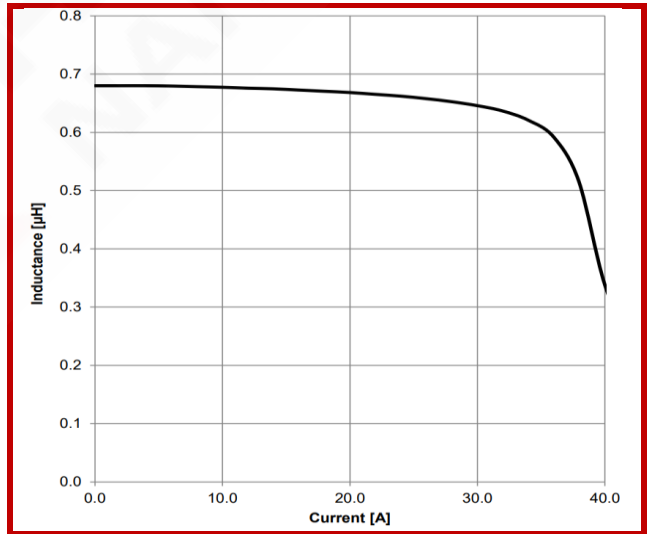
SPI09-1109-R33M



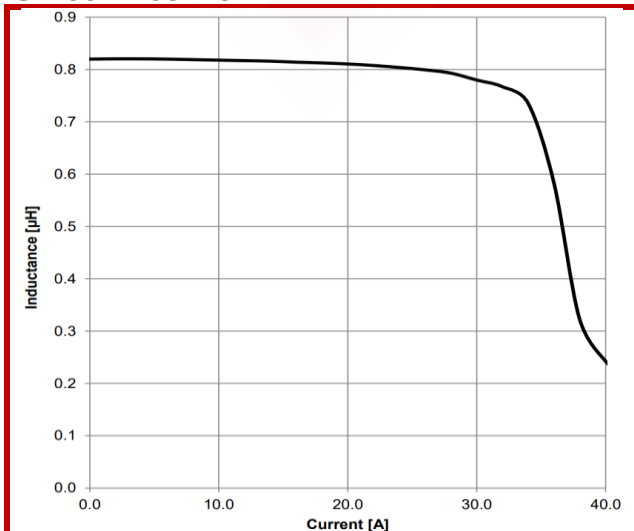
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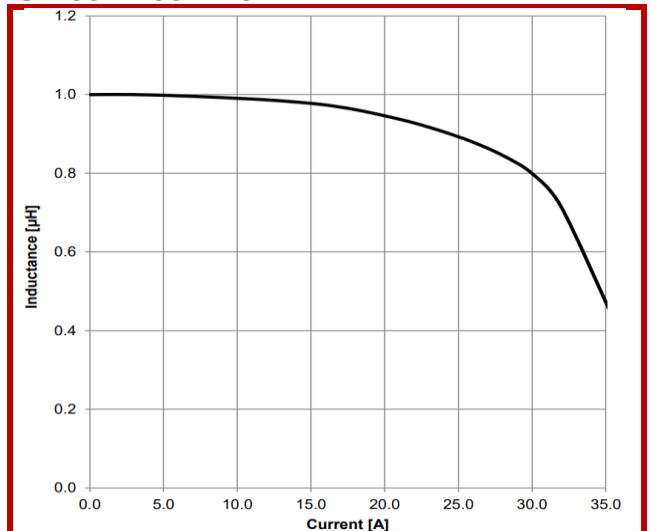
SPI09-1109-R68M

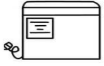


SPI09-1109-R82M



SPI09-1109-1R0M

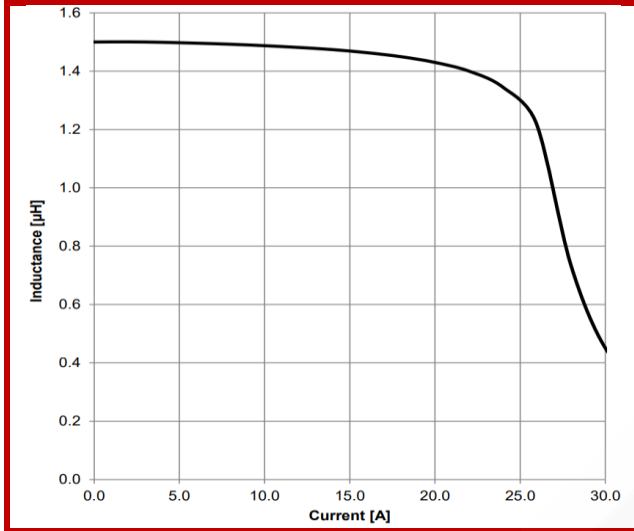




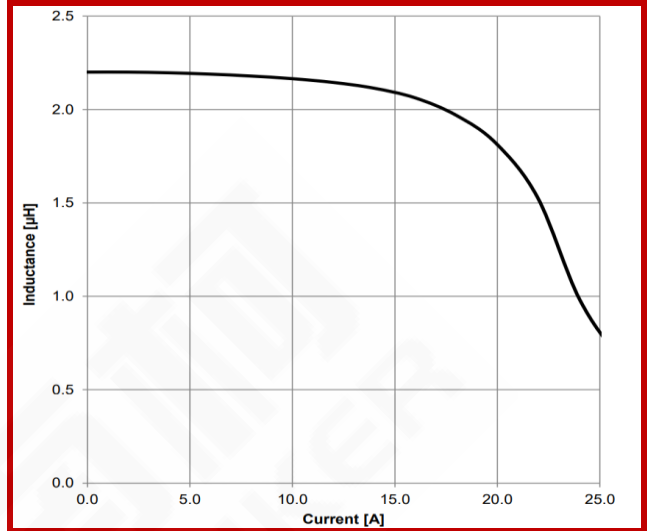
典型电感与电流特性

Typical Inductance vs. Current Characteristics

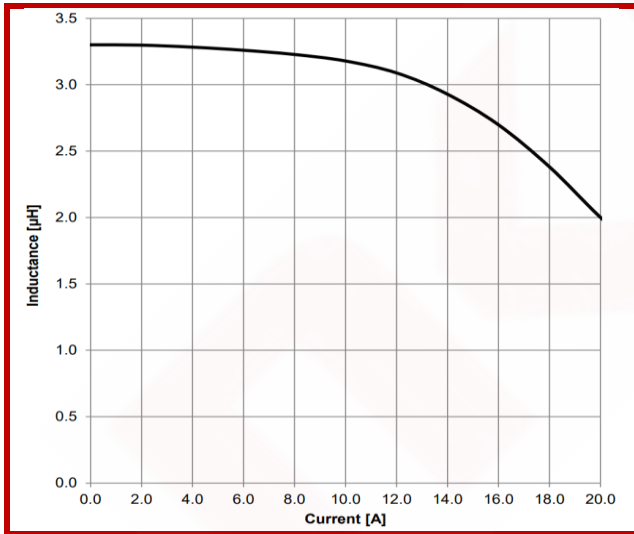
SPI09-1109-1R5M



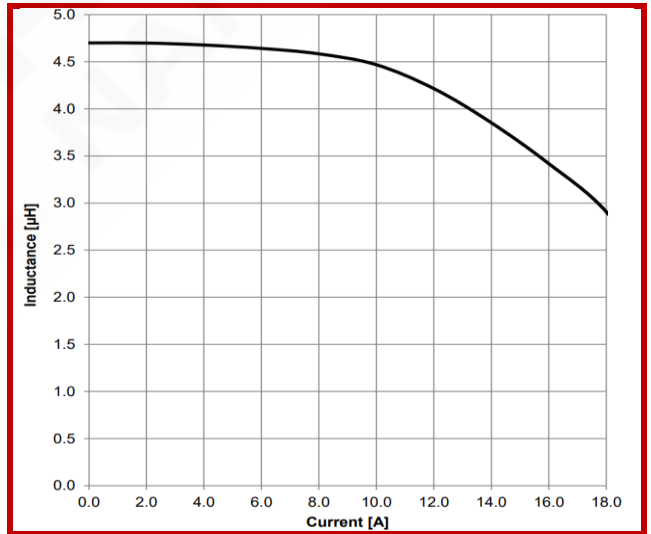
SPI09-1109-2R2M



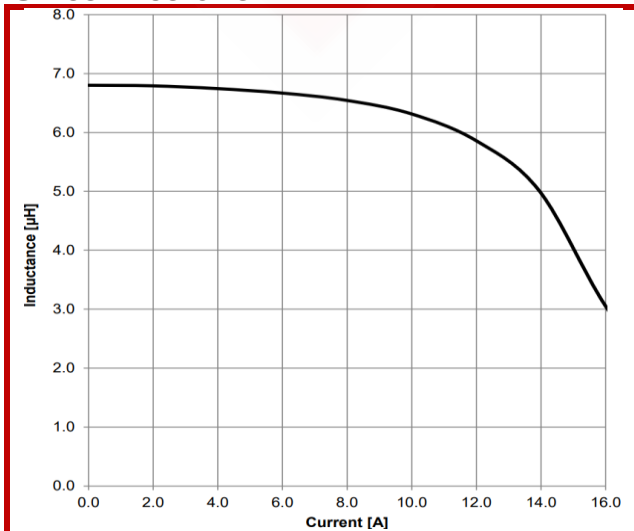
SPI09-1109-3R3M



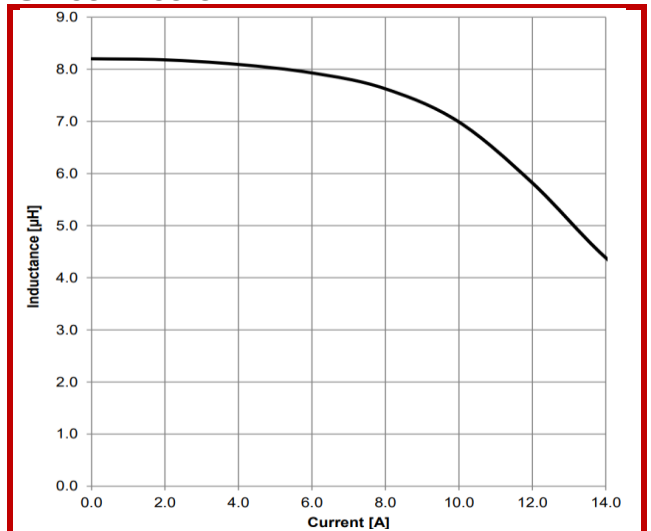
SPI09-1109-4R7M



SPI09-1109-6R8M



SPI09-1109-8R2M

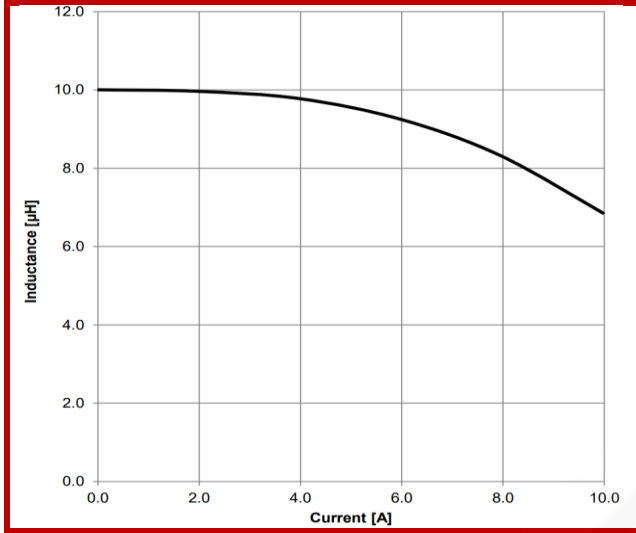


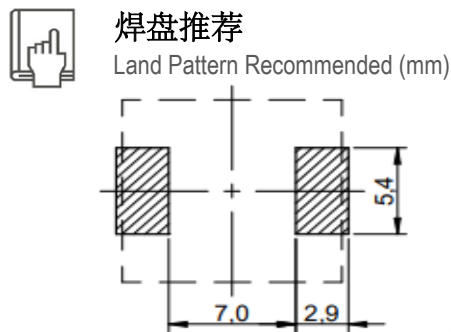
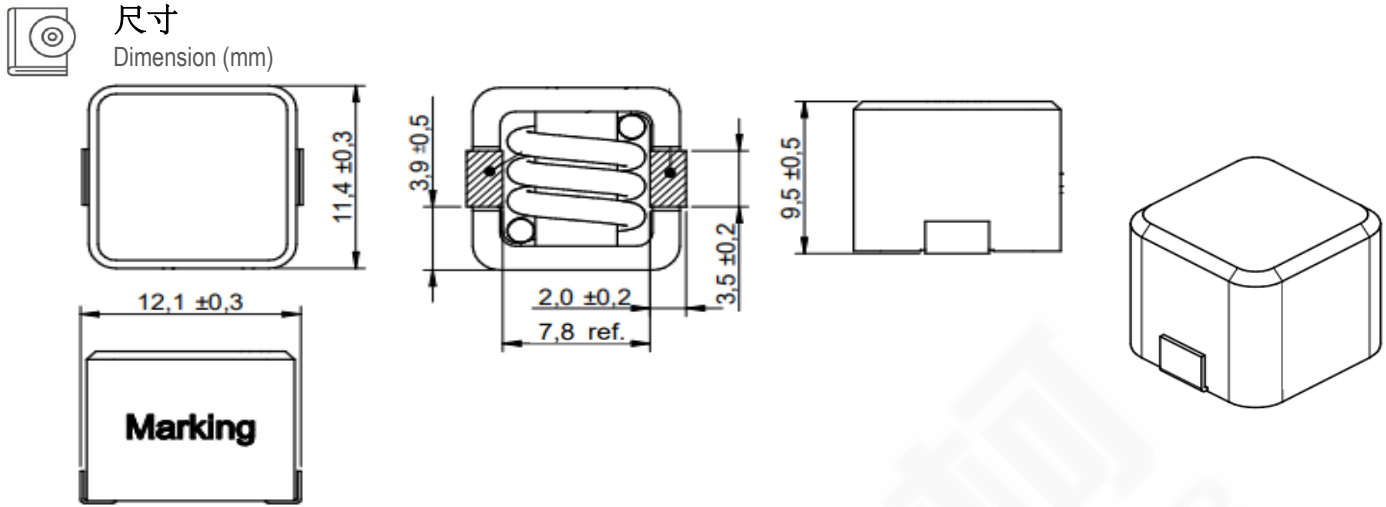


典型电感与电流特性

Typical Inductance vs. Current Characteristics

SPI09-1109-100M





电性特性
Electrical Properties

型号 Part No.	电感 Inductance μH	温升电流 Rated Current I _r typ 50°C (A)	直流电阻 DC Resistance DCR _{max} (mΩ)	饱和电流 Saturation Current I _{sat} typ (A)	磁芯材料 Core Material	卷盘数量 Taping Reel Qty. pcs
SPI09-1109A-R22M	0.22 ±20%	27.00	1.50	73.70	Iron Powder	300
SPI09-1109A-R33M	0.33 ±20%	27.00	1.50	67.30	Iron Powder	300
SPI09-1109A-R47M	0.47 ±20%	23.00	1.85	63.70	Iron Powder	300
SPI09-1109A-R68M	0.68 ±20%	23.00	1.85	59.20	Iron Powder	300
SPI09-1109A-R82M	0.82 ±20%	21.00	2.50	56.20	Iron Powder	300
SPI09-1109A-1R0M	1.00 ±20%	21.00	2.50	51.40	Iron Powder	300
SPI09-1109A-1R5M	1.50 ±20%	18.50	3.50	54.40	Iron Powder	300
SPI09-1109A-2R2M	2.20 ±20%	16.00	4.30	38.00	Iron Powder	300
SPI09-1109A-3R3M	3.30 ±20%	13.00	7.70	38.90	Iron Powder	300
SPI09-1109A-3R9M	3.90 ±20%	11.50	11.00	34.90	Iron Powder	300
SPI09-1109A-4R7M	4.70 ±20%	11.50	11.00	35.50	Iron Powder	300

测试状态

Test Condition

☆ 电感测试条件为 100 kHz/ 10 mA

Inductance measure condition at 100 kHz/ 10 mA

☆ 工作温度: -40°C ~ +125°C

Operating Temperature: -40°C ~ +125°C

☆ 饱和电流: 电感值下降其初始值的30%时所加载的实际直流电流值

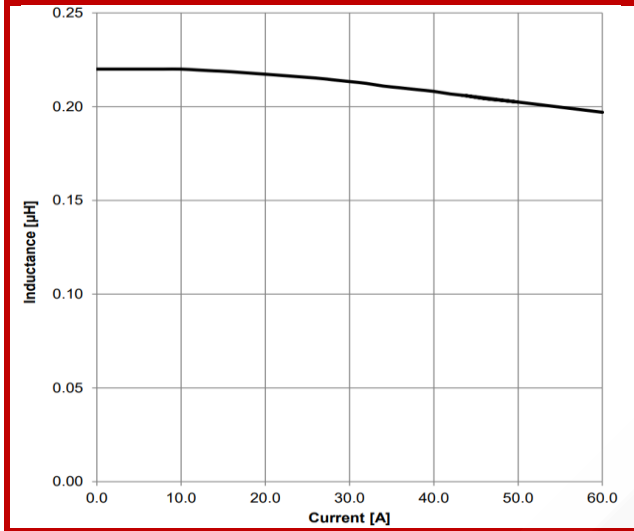
Saturation Current: The actual value of DC current when the inductance drop 30% of initial value



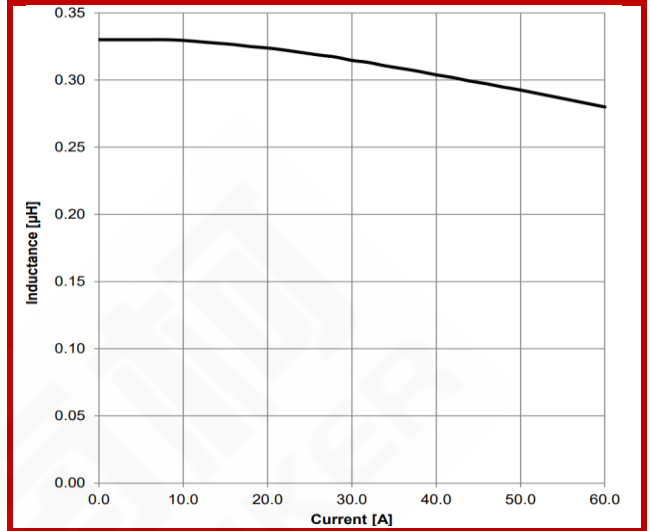
典型电感与电流特性

Typical Inductance vs. Current Characteristics

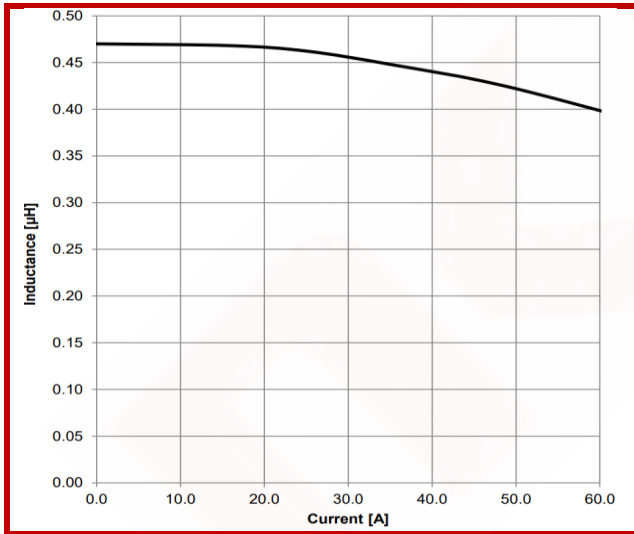
SPI09-1109A-R22M



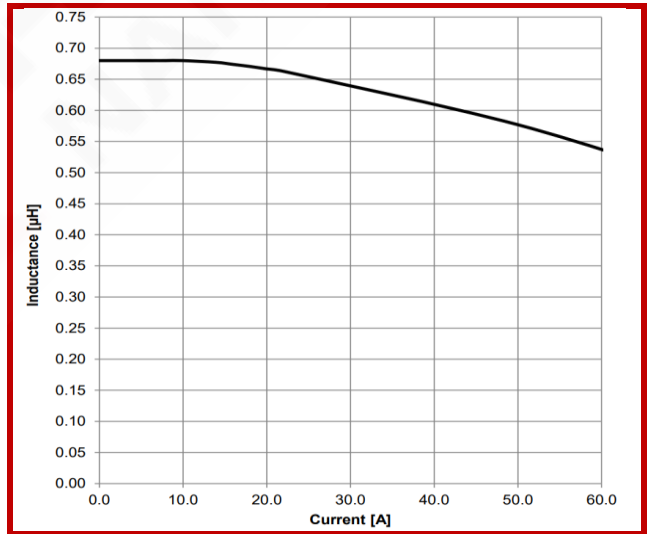
SPI09-1109A-R33M



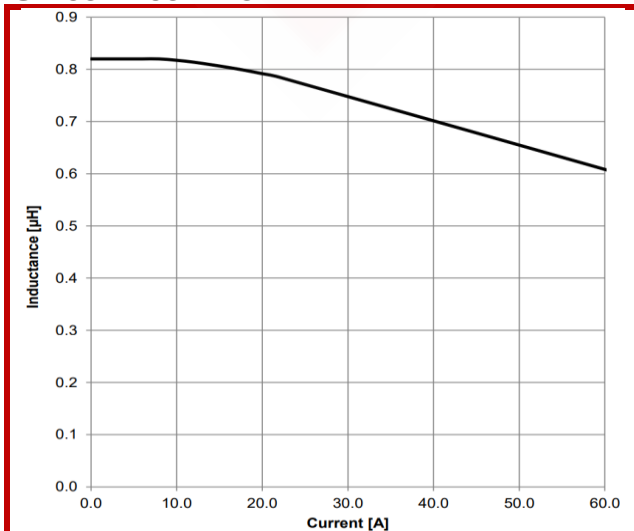
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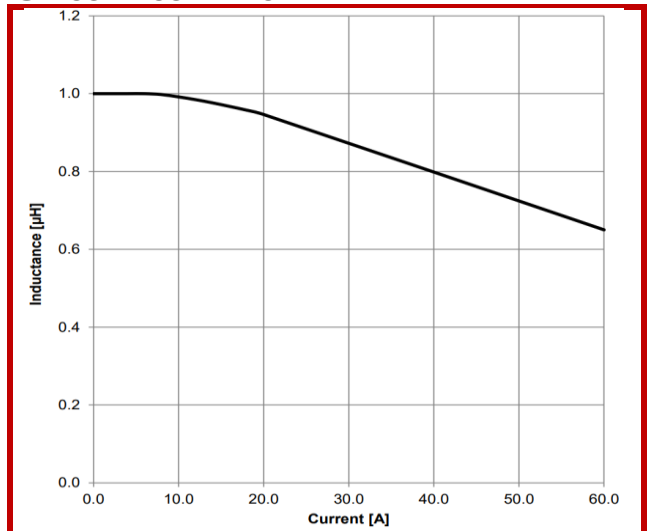
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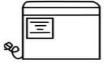


SPI09-1109A-R82M



SPI09-1109A-1R0M

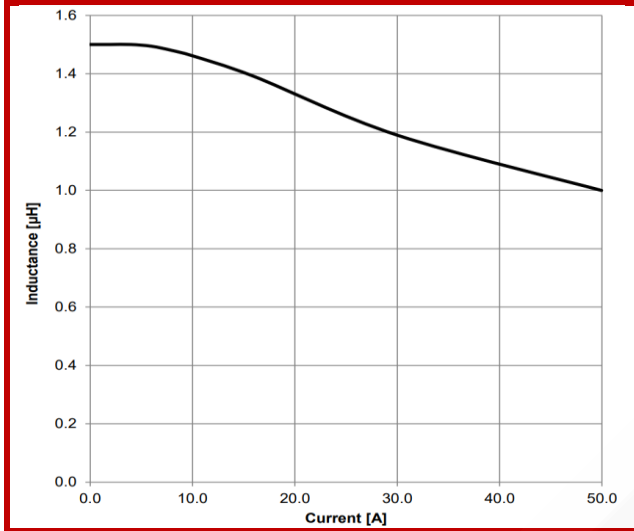




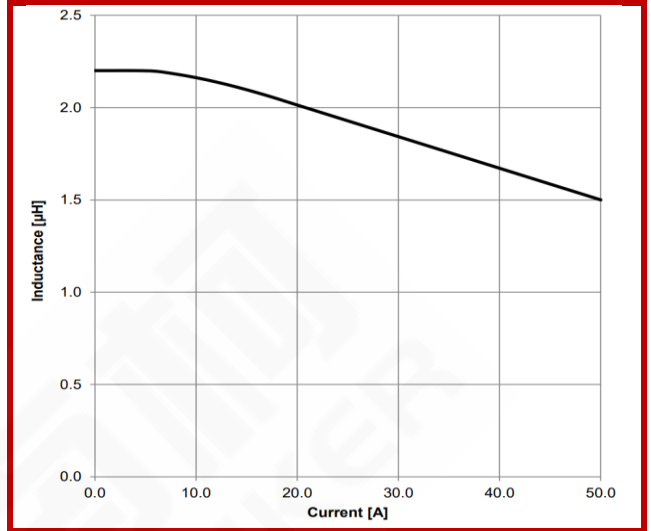
典型电感与电流特性

Typical Inductance vs. Current Characteristics

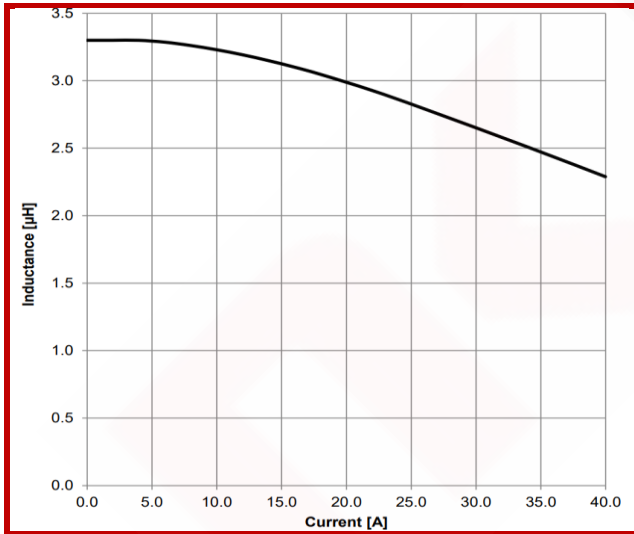
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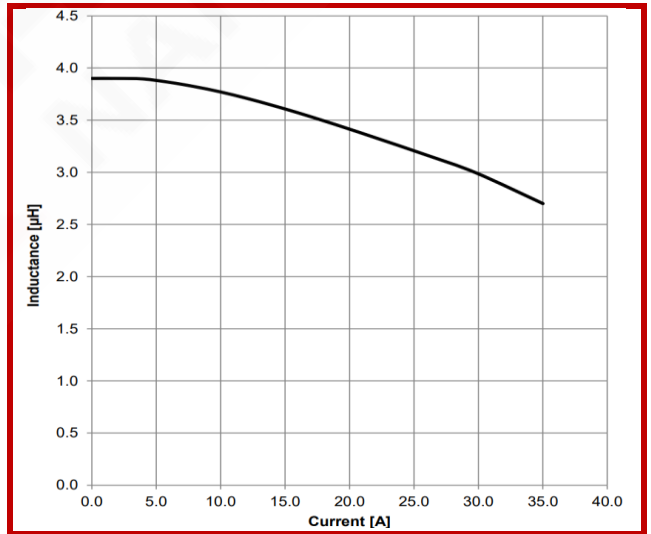
SPI09-1109A-2R2M



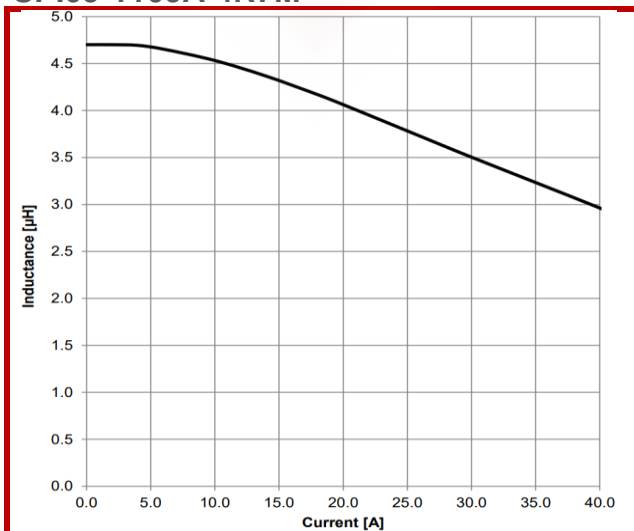
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SPI09-1109A-3R9M



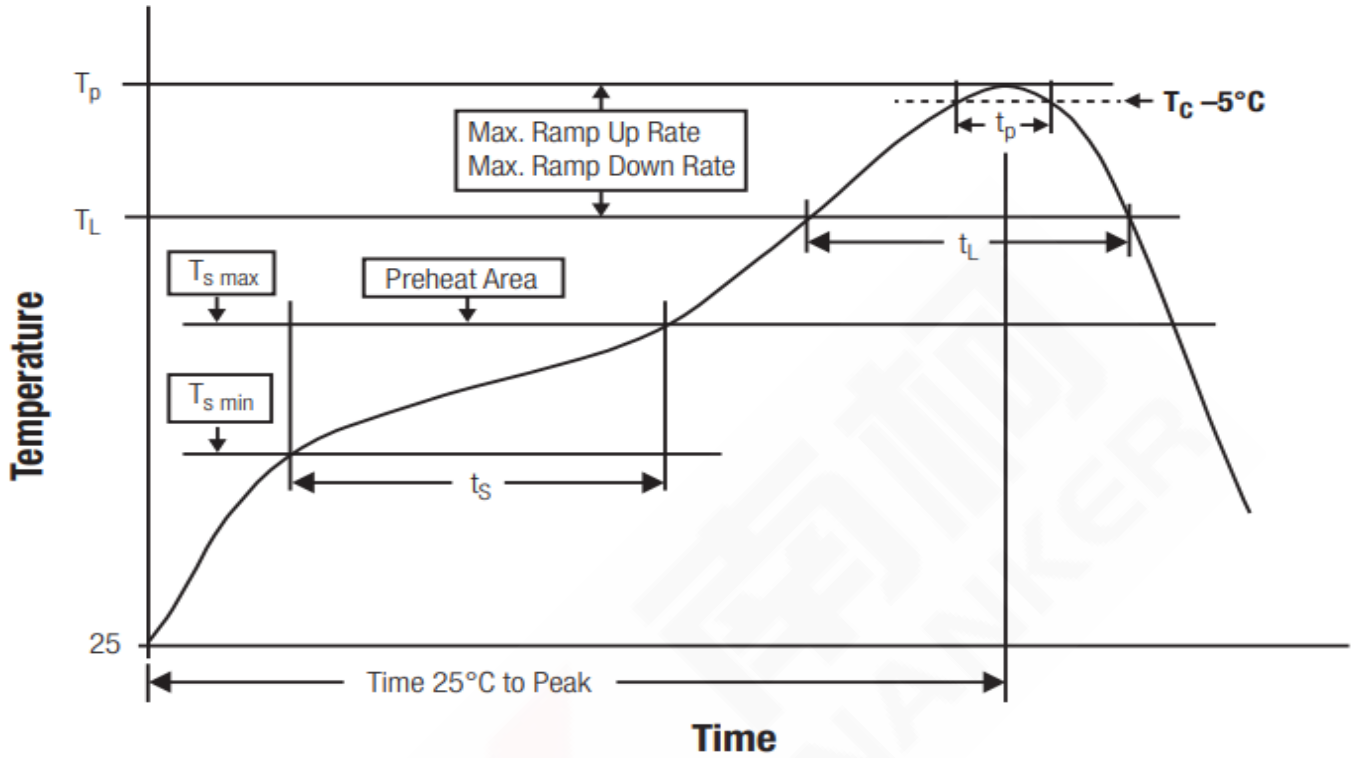
SPI09-1109A-4R7M





回流焊曲线图

Classification Reflow Profile for SMT Components



封装体峰值温度(Tp)分类

Classification Reflow Soldering Profile:

	封装厚度 Package Thickness	封装体积 Package Volume		
		<350 mm ³	350~2,000 mm ³	>2,000 mm ³
无铅装配 PB-Free Assembly	<1.60mm	260°C	260°C	260°C
	1.60~2.50mm	260°C	250°C	245°C
	>2.50mm	260°C	245°C	245°C

- ◆ 回流焊参照标准 IPC/JEDEC J-STD-020D。
Reflow is refer to standard IPC/JEDEC J-STD-020D.