

SMPC系列功率电感
SMPC Series SMD Power Inductors

特征 Features

超薄大电流	Low Profile & High Current
温度最高125°C	High Temperature, Up to 125°C
车载AEC-Q200标准	Compliant with AEC-Q200

应用 Applications

辅助驾驶	ADAS
车载大灯	LED Head Light
车载DC/DC转换	Automotive DC/DC Converters

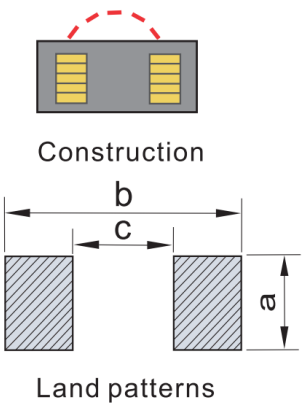
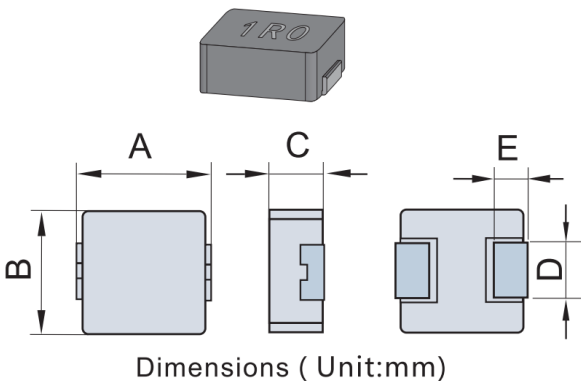


产品规格型号表示方法 How to Order

SMPC1265A - **100** **M** **C**
(1) (2) (3) (4)

- (1) 系列名称 Series Name
- (2) 电感感值 Inductance(μH)
- (3) 精度误差 Tolerance
- (4) 内部代码 Internal Code

外型尺寸 Dimensions



Type	A	B	C	D	E	a	b	c
SMPC1265A	13.5±0.5	12.6±0.3	6.2±0.3	4.0±0.5	2.3±0.5	4.3 Typ.	14.7 Typ.	7.4 Typ.

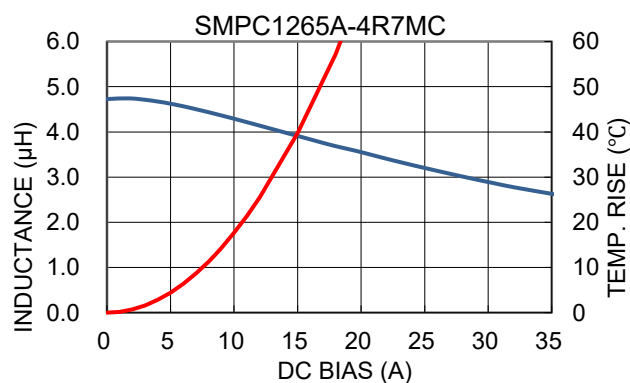
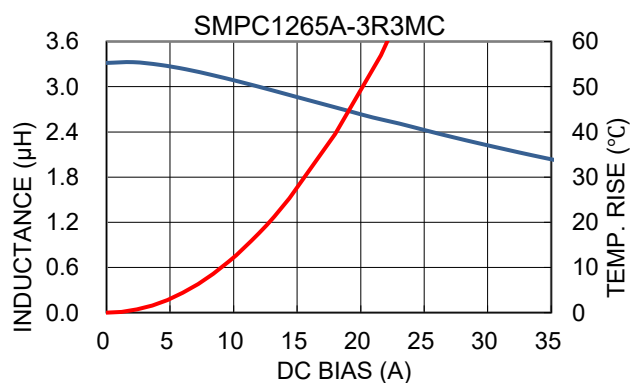
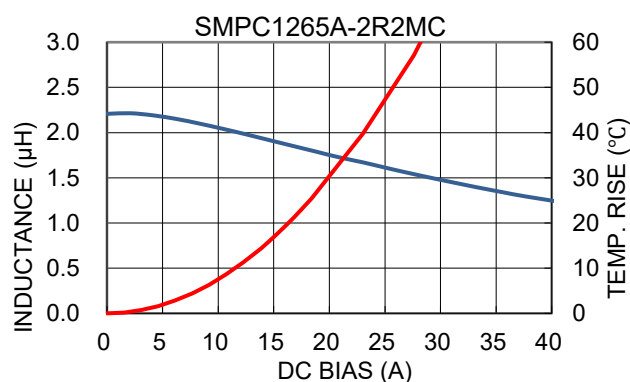
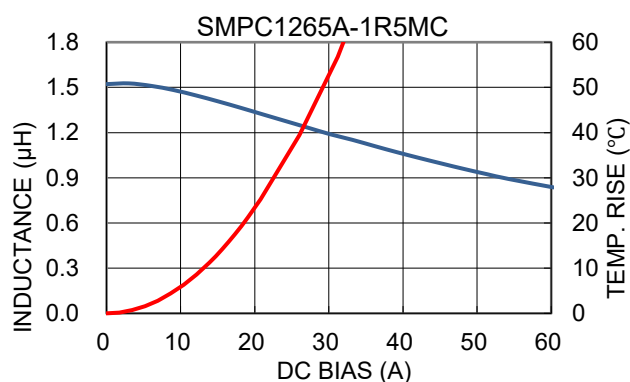
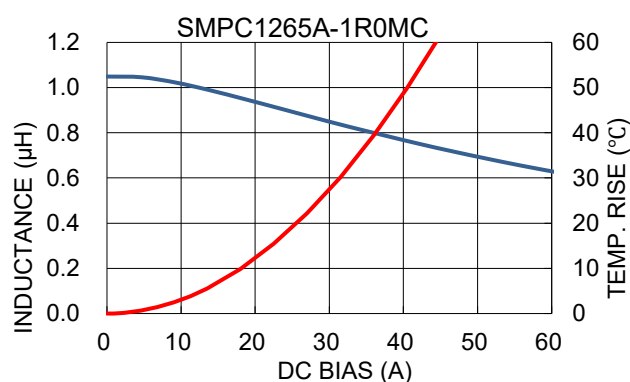
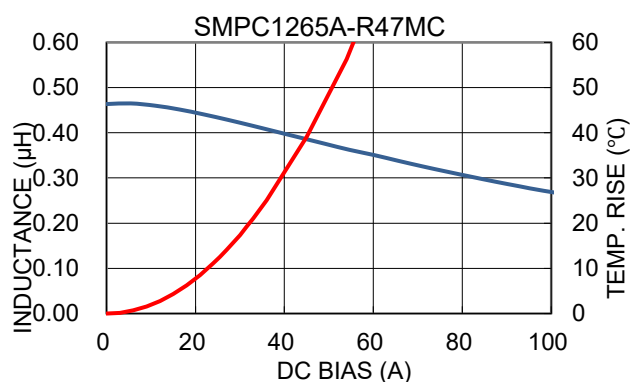
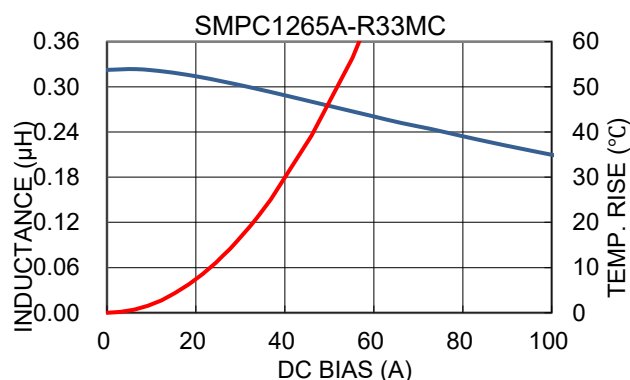
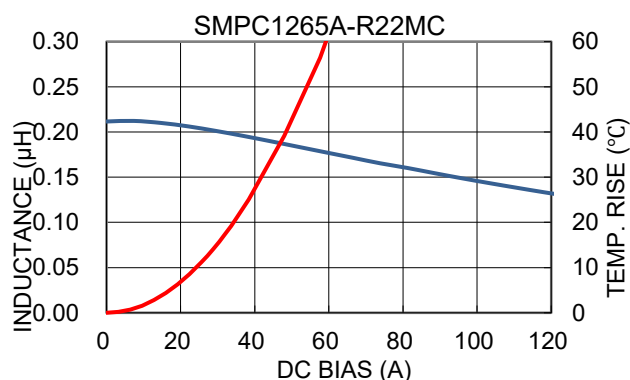
性能参数 Electrical Characteristics

规格型号 Part No.	电感值 Inductance (μ H)	直流电阻 R_{DC} (m Ω)		温升电流 I_{rms} (A)		饱和电流 I_{sat} (A)		额定电压 V_{DC} (V)
		Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.
SMPC1265A-R22MC	0.22 $\pm$ 20%	0.65	0.80	48.0	43.0	95.0	80.0	100
SMPC1265A-R33MC	0.33 $\pm$ 20%	0.85	1.10	46.0	41.0	85.0	70.0	100
SMPC1265A-R47MC	0.47 $\pm$ 20%	0.90	1.20	45.0	40.0	70.0	60.0	100
SMPC1265A-1R0MC	1.00 $\pm$ 20%	1.40	2.00	36.0	32.0	46.0	40.0	100
SMPC1265A-1R5MC	1.50 $\pm$ 20%	2.50	3.00	26.0	23.0	39.0	35.0	100
SMPC1265A-2R2MC	2.20 $\pm$ 20%	3.50	4.20	23.0	20.0	27.0	24.0	100
SMPC1265A-3R3MC	3.30 $\pm$ 20%	5.30	6.20	19.0	17.0	27.0	24.0	100
SMPC1265A-4R7MC	4.70 $\pm$ 20%	7.80	9.20	15.0	13.0	23.0	20.0	100
SMPC1265A-6R8MC	6.80 $\pm$ 20%	8.50	11.3	14.0	12.0	18.0	16.0	100
SMPC1265A-100MC	10.0 $\pm$ 20%	15.0	18.0	11.0	9.5	15.0	13.0	100
SMPC1265A-150MC	15.0 $\pm$ 20%	23.0	27.0	9.0	8.0	11.5	10.0	100
SMPC1265A-220MC	22.0 $\pm$ 20%	34.0	40.0	7.5	6.5	9.0	7.8	100
SMPC1265A-330MC	33.0 $\pm$ 20%	50.0	60.0	5.8	5.3	8.6	7.0	100
SMPC1265A-470MC	47.0 $\pm$ 20%	60.0	72.0	5.5	5.0	6.8	6.0	100
SMPC1265A-680MC	68.0 $\pm$ 20%	110.0	130.0	3.8	3.3	5.5	5.0	100
SMPC1265A-101MC	100.0 $\pm$ 20%	150.0	180.0	3.2	2.8	4.2	3.8	100

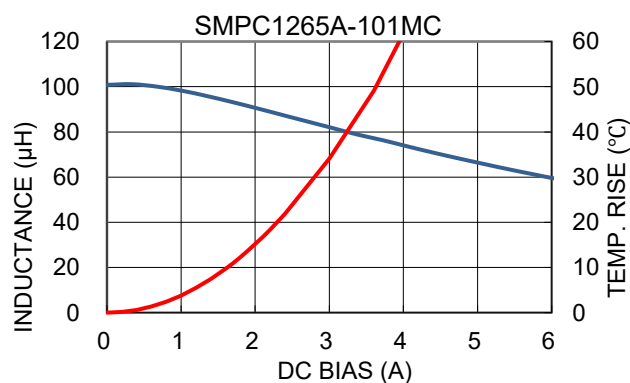
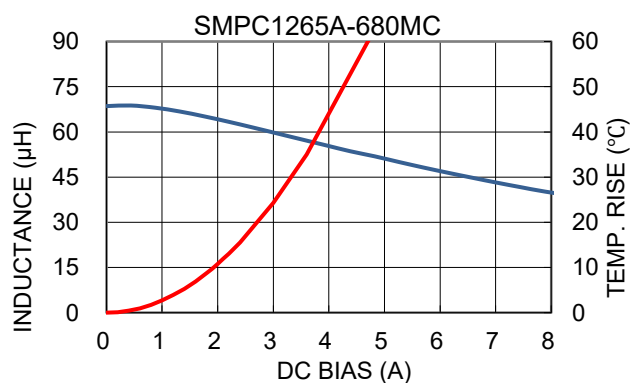
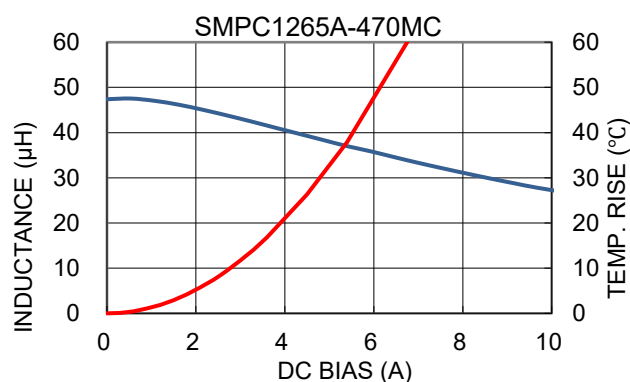
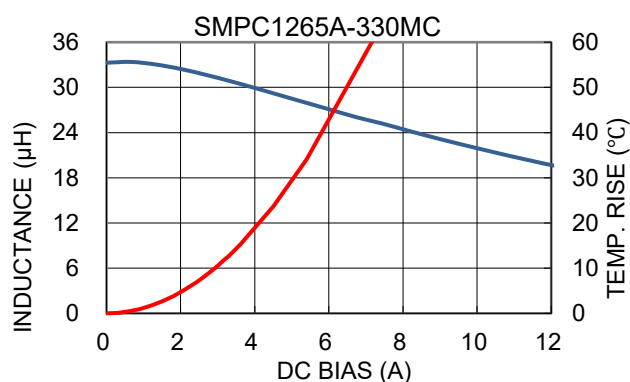
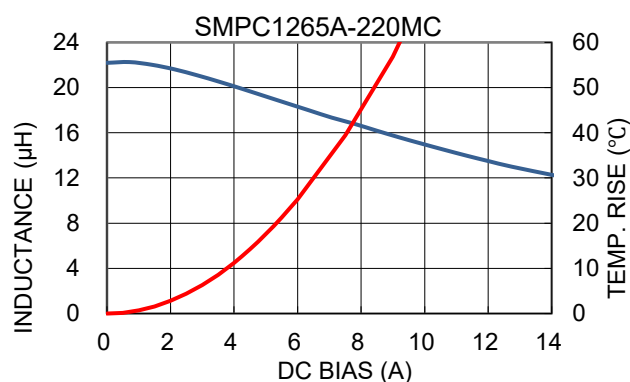
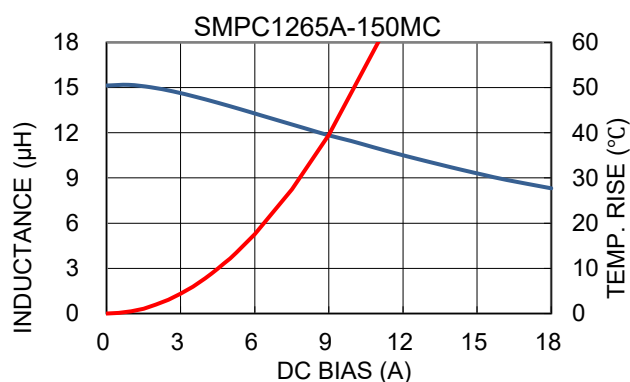
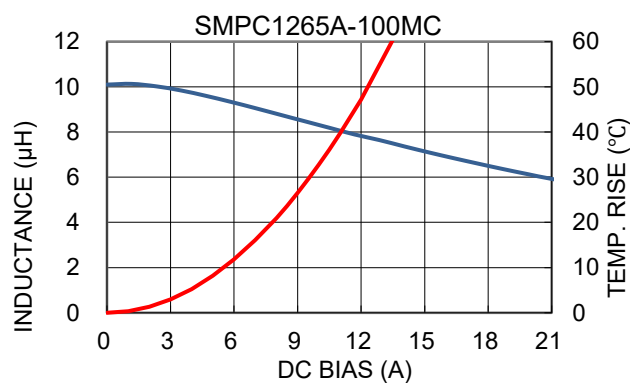
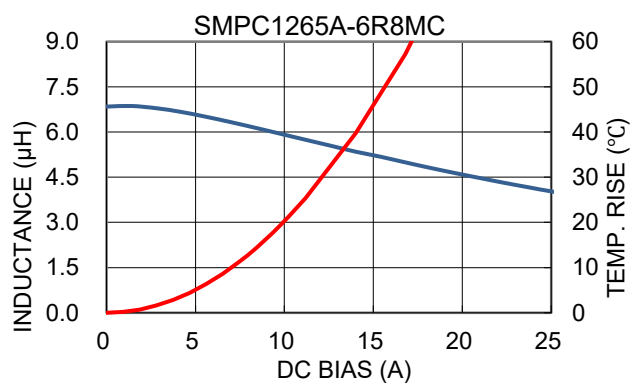
备注 Remark:

- 所有测试数据均参考18-25℃环境温度
All test data is referenced to 18-25℃ ambient.
- 电感测试条件为用WK3260B或同等设备以100KHz/0.25V测试
Inductance tested at 100KHz/0.25V with WK3260B LCR Meter or equivalent.
- 饱和电流: 加电流时电感量下降小于或等于30%
 I_{sat} : DC current at which the inductance drops 30% from its value without saturation.
- 温升电流: 加电流时产品温度上升小于等于40℃
 I_{rms} : DC current that causes the temperature rise ($\Delta T = 40^\circ\text{C}$) from ambient temperature.
- 工作温度 (包括自身发热) : -40℃~+ 125℃
Operating temperature rang(including coil's self-temperature rise): -40℃~+ 125℃.

电流特性曲线 DC BIAS Characteristics

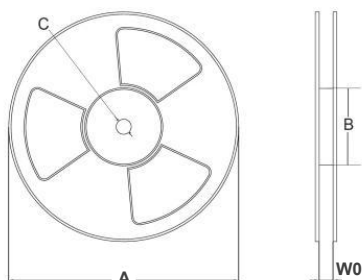


电流特性曲线 DC BIAS Characteristics

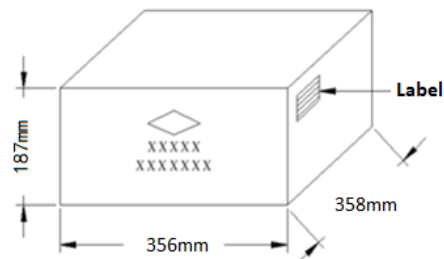
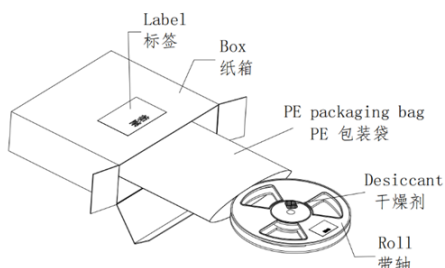
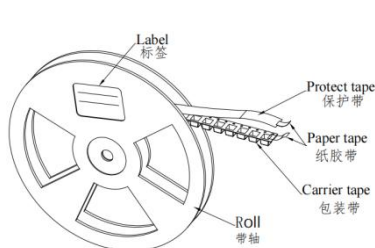
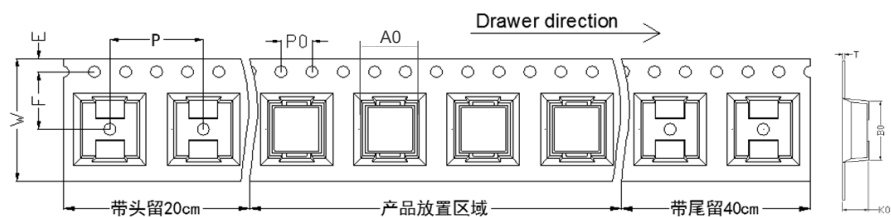


包装材料及规格 Packaging Materials and Specifications(Unit: mm)

卷轴尺寸图 Reel Size



包装带尺寸图 Tape Size



Item	A	B	C	W0	P	W	P0	E	F	A0	B0	K0	T	pcs/Reel
Specification	330	100	13.5	24.4	16.0	24.0	4.0	1.75	11.5	13.1	14.6	6.6	0.4	500

内外箱标识内容 Inside and Outside Box Identification Content



Made in China

<HSF/RoHS>

P/O:



Customer P/N:



CYGE P/N:



LOT NO:



DATE:

QTY: PCS

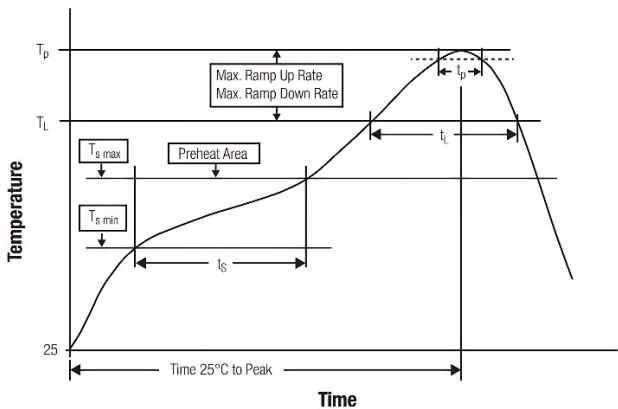
CODE



匠 心 致 远 追 求 卓 越 感 动 人 心

Following ingenuity, pursuing, excellence, touching hearts

推荐回流焊条件 Recommended Reflow Soldering Conditions



Profile Feature	Lead-Free Assembly
Preheat Temperature Min (T_s min)	150°C
Preheat Temperature Max (T_s max)	200°C
Preheat Time t_s from T_s min to T_s max	60-120 seconds
Average Ramp-Up Rate (T_L to T_P)	3°C /second max.
Liquidous Temperature (T_L)	217°C
Time t_L maintained above T_L (t_L)	60-150 seconds
Peak/Classification Temperature (T_P)	255°C
Time within 5°C of actual peak temperature (t_p)	20-30 second
Ramp-down Rate (T_P to T_L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

储存条件/注意的事项 Storage Conditions/Note Things

- 1、贮存温度、湿度条件Storage temperature and humidity conditions :
- 1.1、产品包装与载体:- 5°C~ + 40°C,低于60% RH.
Product packing with Carrier tape: -5°C~+40°C and less than 60% RH.
- 1.2、单独的产品:-20°C~ + 60°C,低于60% RH.
Product alone: -20°C~+60°C and less than 60% RH.
- 2、产品在6个月内使用(注意:产品一经拆开包装,须尽快使用).
Products should be used within 6 months.
(Note that the product should be used as soon as possible once it is folded) .
- 3、包装材料应保存在空气中不存在氯或硫的地方.
The packaging material should be kept where no chlorine or sulfur exists in the air.
- 4、不要用手指触摸电极(焊接端子),因为这可能导致焊接能力的下降.
Do not touch the electrodes (soldering terminals) with fingers as this may lead to deterioration of solderability.
- 5、个别零件强烈建议使用镊子或真空取料机散装搬运应减少磨损和机械冲击.
The use of tweezers or vacuum pick-ups is strongly recommended for individual components.
Bulk handling should ensure that abrasion and mechanical shock are minimized.

版本 Rev.	修改时间 Modified Date	页次 Page	变更内容 Contents
A0	2020-03-02	-	New approval
A1	2025-08-06	Page 7	Add The history of revision change for the specification
A2	2025-09-08	Page 5	Change Label

Remark: The specification is subject to change without prior notice due to product improvements or other reasons.