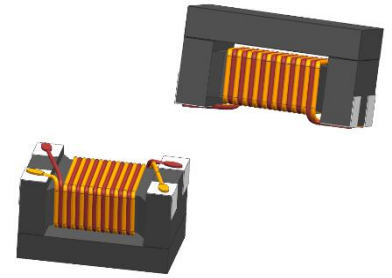


SMC 系列共模线圈 SMC Series Common Mode Chokes

特征 Features

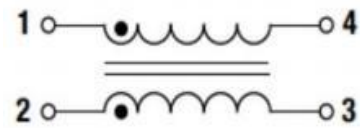
- 超薄小型化 Low Profile & Small Size
- 温度最高125°C High Temperature, Up to 125°C
- 车载AEC-Q200标准 Compliant with AEC-Q200



应用 Applications

- 车载通信总线 LIN/CAN/FlexRay BUS
- 车联网智能终端 T-BOX
- 共模信号滤波 Common Mode Filtering

电路接线图 Circuit

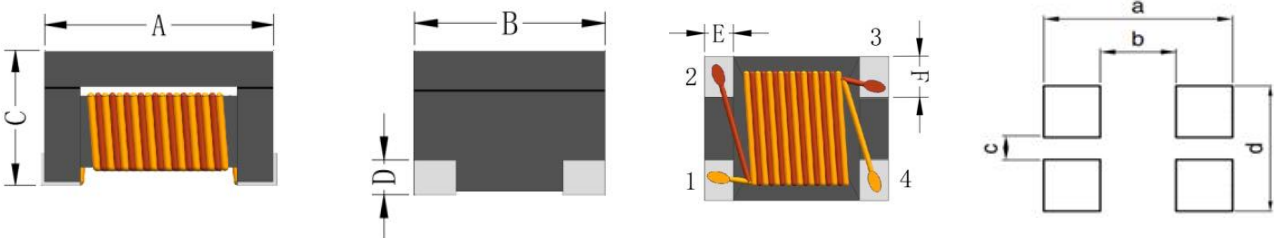


产品规格型号表示方法 How to Order

SMC 1210 B - 101 Y C
① ② ③ ④ ⑤ ⑥

①	②	③		④	⑤	⑥	
产品代号 Product Code	规格尺寸(L×W×T) Dimensions(mm)	型号规格 Type Code		电感值 Inductance	误差 Tolerance	应用领域 application area	
SMC 系列 SMC Series	3.2×2.5×2.55	B	For CAN/CAN-FD	1R0=1.0μH	K=10% M=20% P=25% N=30% Y=其他误差	C	车载品 125°C
		R	For A2B® (50Mbps)	100=10μH		A	车载品 155°C
		E	For Ethernet	101=100μH			Automotive 155°C.
		F	For CAN/CAN-FD (DCMR Class 3)	102=1000μH		CT	车载特制品 Automotive special.

外型尺寸 Dimensions(Unit:mm)



Type Name	A	B	C	E	F	a	b	c	d
SMC1210	3.2±0.2	2.5±0.2	2.35±0.2	0.7 Typ.	0.95 Typ.	4.1 Typ.	2.0 Typ.	0.6 Typ.	2.5 Typ.

性能参数 Electrical Characteristics

SMC1210B Series

Part No.	Inductance -30%~50% (uH)	DCR (Ω) Max.	I _{DC} (mA) Max.	V _{DC} (V)	IR (MΩ) Min.	Withstanding Voltage (Vdc)
SMC1210B-110YC	11@0.1MHz,0.1V	0.4	400	80	10	200
SMC1210B-220YC	22@0.1MHz,0.1V	0.5	300	80	10	200
SMC1210B-510YC	51@0.1MHz,0.1V	0.7	200	80	10	200
SMC1210B-101YC	100@0.1MHz,0.1V	1.5	150	80	10	200

SMC1210R Series

Part No.	Inductance -30%~50% (uH)	DCR (Ω) Max.	I _{DC} (mA) Max.	V _{DC} (V)	IR (MΩ) Min.	Withstanding Voltage (Vdc)
SMC1210R-101YC	100@0.1MHz,0.1V	3.36	100	50	10	125

SMC1210E Series

Part No.	Inductance -30%/+50% (uH)	DCR (Ω) Max.	I _{DC} (mA) Max.	V _{DC} (V)	IR (MΩ) Min.	Withstanding Voltage (Vdc)
SMC1210E-101YC	100 (Typ.) (@0.1MHz,0.5V) 80 -25%/+50% (@0.1MHz,0.1V)	3.12	150	50	10	125
SMC1210E-201YC	200@0.1MHz,0.1V	4.8	70	50	10	125

SMC1210F Series

Part No.	Inductance -30%~50% (uH)	DCR (Ω) Max.	I _{DC} (mA) Max.	V _{DC} (V)	IR (MΩ) Min.	Withstanding Voltage (Vdc)
SMC1210F-101YC	100@0.1MHz,0.1V	2.1	100	50	10	125

备注 Remark

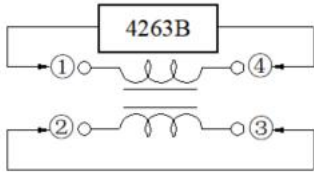
Temperature : 20±2℃

Humidity : 60 to 75% (RH)

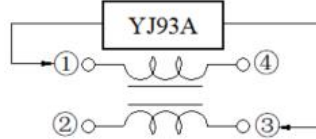
Atmospheric Pressure : 86 to 106 kPa

测试设备 Test Equipment

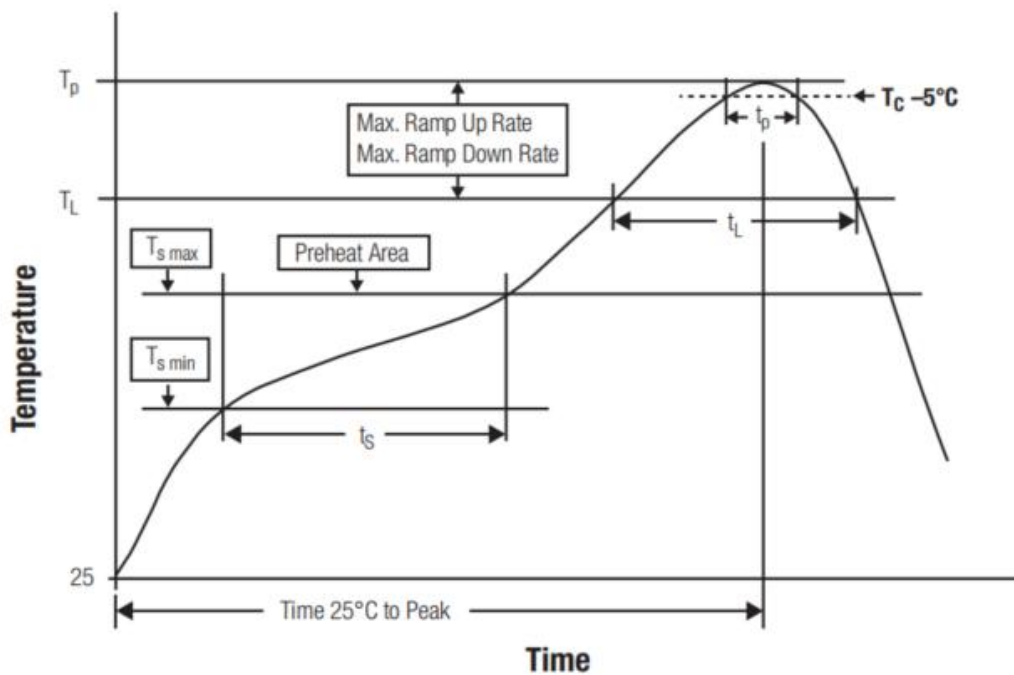
共模阻抗
Common Mode Impedance



直流电阻
DC Resistance

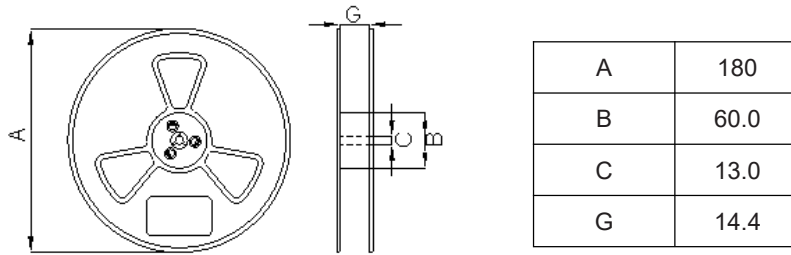


推荐回流焊条件 Recommended Reflow Soldering Conditions

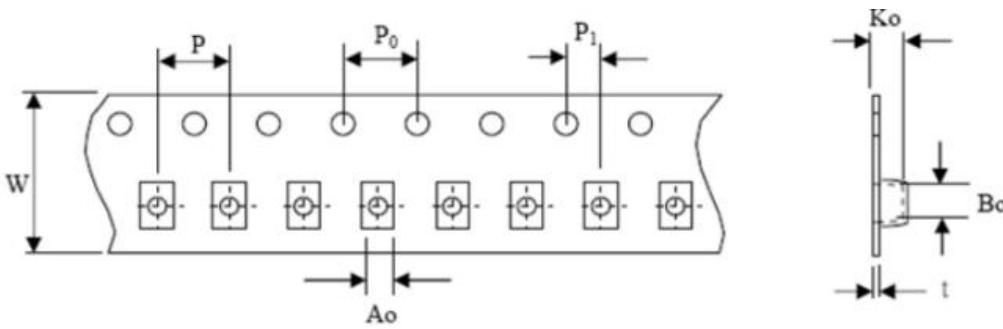


Profile Feature	Lead-Free Assembly
Average Ramp-Up Rate (T _{smax} to T _p)	3°C /second max.
Preheat - Temperature Min (T _{smin}) - Temperature Max (T _{smax}) - Time (t _{smin} to t _{smax}) min to t _{smax})	150 °C 200 °C 60-180 seconds
Time maintained above: - Temperature (T _L) - Time (t _L)	217 °C 60-150 seconds
Peak/Classification Temperature (T _p) Peak/Classification Time (T _p)	255 °C 30 seconds max.
Time within 5 °C of actual Peak Temperature (t _p)	20-40 seconds
Ramp-Down Rate	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

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



包装方式及数量 The Packing Method and Quantity (mm):

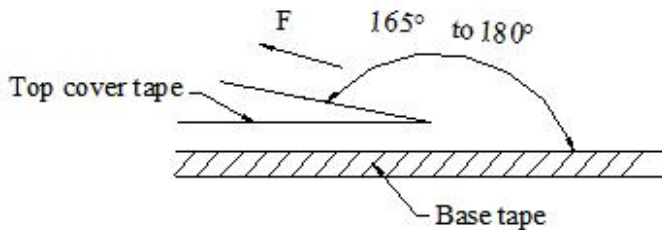


Part No.	W	P	P0	P1	A0	B0	K0	t	pcs/Reel
SMC1210	8.0	4.0	4.0	2.0	2.85	3.55	2.75	0.24	1500

剥离强度 Peeling Strength

在箭头方向上撕下10克到100克(0.1N到1.0N)的力,剥离速度300mm/MIN以上.

The force tearing off cover 10 to 100 grams (0.1N to 1.0N) in the arrow direction under the following conditions,
The stripping speed is above 300mm/minute.



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



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℃ ~ +40℃, 低于60% RH.
Product packing with Carrier tape: -5℃ ~ +40℃ and less than 60% RH.
 - 1.2. 单独的产品: -20℃ ~ +60℃, 低于60% RH.
Product alone: -20℃ ~ +60℃ 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 solder ability.
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.