

## Revision and History

Part No.: SP05-12103R5M

Product code: TBD

Page: 1/4

Rev.	Date	Revision Description	Checked	Approved
A1	Jul/30/2019	Initial release.	Louise Liu	Cason Chen

# Spec Sheet

Part No.: SP05-12103R5M

Product code: TBD

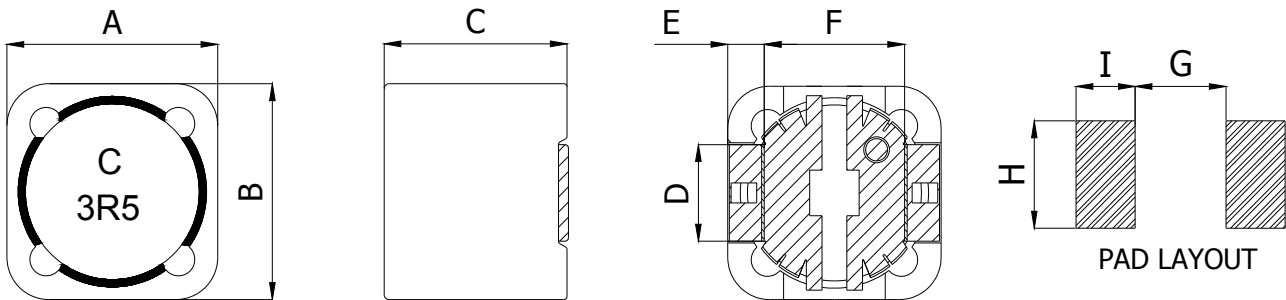
Page: 2/4

## Features

- Magnetically shielded construction
- Storage temperature range:-40°C to + 125°C
- Operating temperature range:-40°C to + 125°C  
(including coil's self-temperature rise)
- Moisture sensitivity level:1
- Packaging:250pcs. Per 13-inch reel
- RoHS&Halogen-free compliance

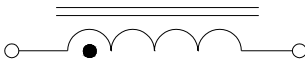


## Mechanical Dimension(Unit:mm/inches)



A	B	C	D	E	F	G	H	I
12.3±0.3	12.3±0.3	10.0 Max.	5.0±0.2	2.0±0.2	8.0±0.3	6.1	5.5	3.85
0.484±0.012	0.484±0.012	0.394 Max.	0.197±0.008	0.079±0.008	0.315±0.012	0.24	0.217	0.151

## Electrical Schematic



## Part Number Description

SP05 - 1210 3R5 M  
 ① ② ③ ④

- ① Type
- ② Dimensions
- ③ Inductance value
- ④ Tolerance code

## Electrical Characteristic

Inductance L0(uH)	DCR (mΩ)Max.	SRF (MHz)Typ.	Isat (A)Typ.	Irms (A)Typ.
3.5±20%	9.0	45	16.5	11.0

- Test frequency and voltage:100KHz,0.25Vrms.
- All test data referenced to 25°C ambient.
- Saturation current(Isat) will cause L0 to drop 35% typical.
- Heat rated current(Irms) will cause the coil temperature rise approximately Δt of 40°C.

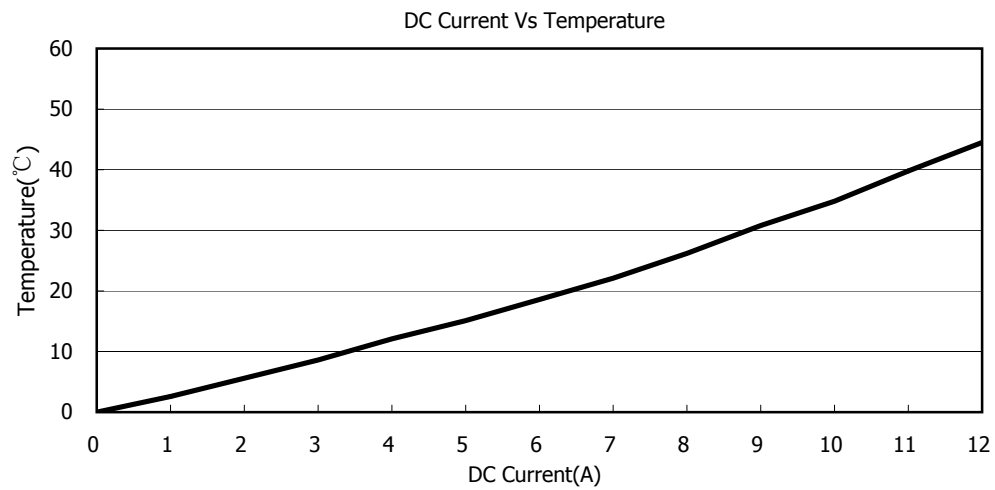
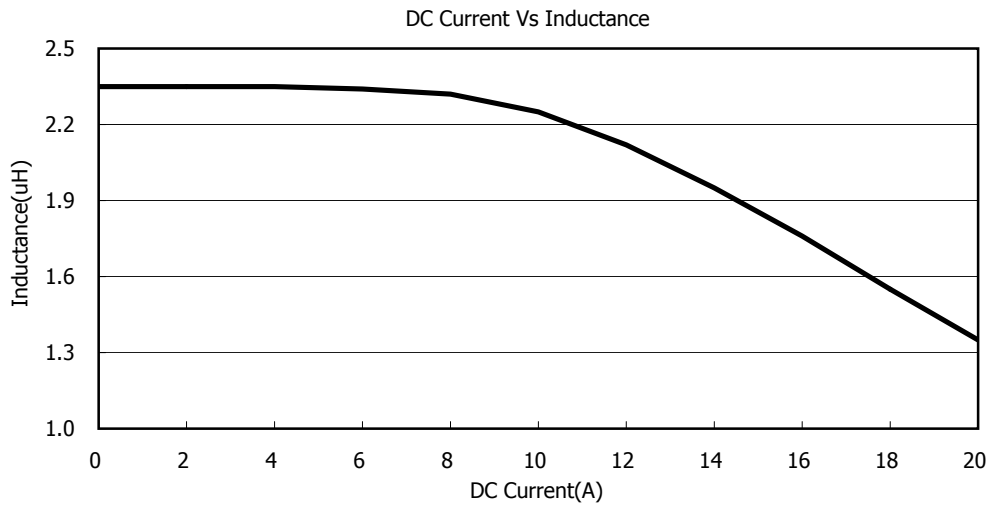
# Spec Sheet

Part No.: SP05-12103R5M

Product code: TBD

Page: 3/4

## Characteristic Curve



# Spec Sheet

Part No.: SP05-12103R5M

Product code: TBD

Page: 4/4

## Material List

No.	Materials	Description	Suppliers	UL No.
1	Core	Ni-Zn Ferrite	Zhongshan CASTLE Technology Co., Ltd. or Equivalent	/
2	Wire	P180 G1 180°C	Elektrisola Hangzhou Co.,Ltd. or Equivalent	E258243
3	Glue	Epoxy Black	Guangzhou WELLS Electronic Material Co. Ltd. or Equivalent	/
4	Tin	Lead-free Sn99.9	Dongguan Thousand Island Metal Foil Co.,Ltd. or Equivalent	/