SPECIFICATION FOR APPROVAL

CUSTOMER :
CUSTOMER P/N:
ITEM : SPIM0603BS series
DATE :
SAMPLE CODE :

PURCHASER CONFIRMED		
APPROVED	**CHECKED**	**DESIGNED**
Robert 2025/12/29	*Carol 2025/12/29*	*Tammy 2025/12/29*

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REVISION	CASE NO.	CONFIRMED
B_XA		V

RoHS

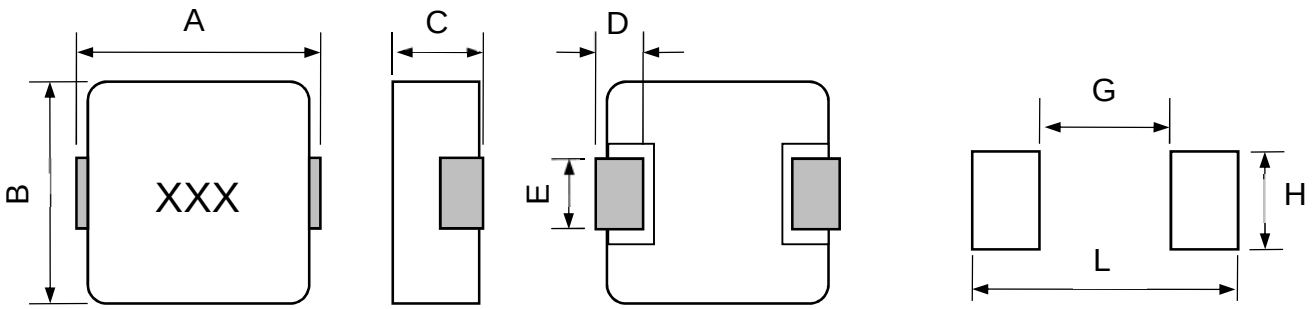
INDEX

■ REVISION CHANGE RECORD

REV	ISSUE OF NEW SPECIFICATION	DATE OF ISSUE
AB	Initial Release.	2023/8/29
B_XA	Standardize the marking format to three digit inductance code.	2025/12/29

Shielded SMT Power Inductor
SPIM0603BS Series

■ SHAPES AND DIMENSIONS



Unit	A Max.	B Max.	C Max.	D	E
mm	7.3	6.8	3.0	1.6 ± 0.3	3.0 ± 0.5
inch	0.287	0.268	0.118	0.063 ± 0.012	0.118 ± 0.020

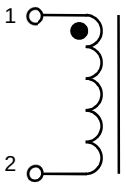
Recommend PAD Layout

G Ref.	H Ref.	L Ref.
3.7	3.5	8.0
0.146	0.138	0.315

Marking :

XXX = Inductance

Schematic :



■ PART NUMBER CODE

SPIM	0603	BS	-	1R0	M	A
1	2	3		4	5	6

1. Series Name
2. Size Code
3. Material Code
4. Inductance(R=Decimal Point) Unit：μH ; 1R0 =1.0uH
5. Inductance tolerance: ”M”±20%
6. Soldering：A=Lead Free

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■ ELECTRICAL CHARACTERISTICS

1. Test equipments

1.1. L : WK3260B LCR Meter.

1.2. DCR: Chroma 16502 Milli-ohm meter.

1.3. IWT test: Chroma 19301(A).(Impulse winding test)

1.4. Saturation Current (Isat): The DC current will cause L0 to drop approximately 30% typical.

1.5. Temperature Rise Current (Irms): The DC current will cause the coil temperature rise approximately △T of 40℃.

1.6. Operating temperature: -55℃ to 125℃

* Equivalent measurement equipment may be used.

2. Part Number and Characteristics Table

Part No.	Inductance L_0 (uH) ± 20%	DCR（mΩ）		Isat(A)		Irms (A)	
		Typ.	Max.	Typ.	Max.	Typ.	Max.
SPIM0603BS-R82MA	0.82	7.1	8.0	26.0	25.0	15.0	14.0
SPIM0603BS-1R0MA	1.0	9.3	10.0	25.0	22.0	14.0	11.0
SPIM0603BS-1R2MA	1.2	11.5	13.0	23.0	20.0	12.0	10.0
SPIM0603BS-1R5MA	1.5	13.5	15.0	22.0	18.0	11.0	9.0
SPIM0603BS-2R2MA	2.2	18.3	20.0	15.0	14.0	10.0	8.0
SPIM0603BS-3R3MA	3.3	23.5	30.0	13.5	12	7.5	6.5
SPIM0603BS-4R7MA	4.7	38.0	40.0	11.0	10.0	6.5	5.5
SPIM0603BS-6R8MA	6.8	54.8	60.0	9.0	8.0	5.0	4.5
SPIM0603BS-8R2MA	8.2	61.5	68.0	8.5	7.5	4.5	4.0
SPIM0603BS-100MA	10.0	102.5	105.0	7.5	7.5	4.0	3.0
SPIM0603BS-220MA	22.0	132.0	155.0	5.0	3.5	3.3	2.5

Note 1: Referenced ambient temperature 25℃.
Note 2: Test Condition: 100kHz, 0.25 Vrms.
Note 3: Isat (Typ): DC current（A）that will cause L0 to drop approximately 30%
Isat (Max): DC current（A）that will cause L0 to drop 30% Max
Irms (Typ): DC current（A）that will cause an approximate ΔT of 40℃
Irms (Max): DC current（A）that will cause an ΔT of 40℃ Max
Note 4: Operating Temperature range includes self-temperature rise.
Note 5: The part temperature (ambient + temp rise) should not exceed 125℃ under the worst case operating conditions. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.
Note 6: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

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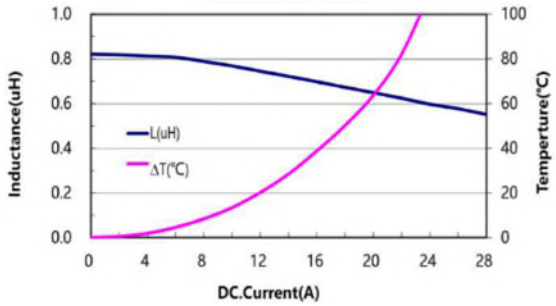
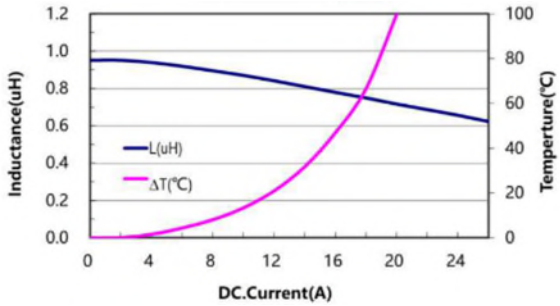
■ TYPICAL PERFORMANCE CURVES

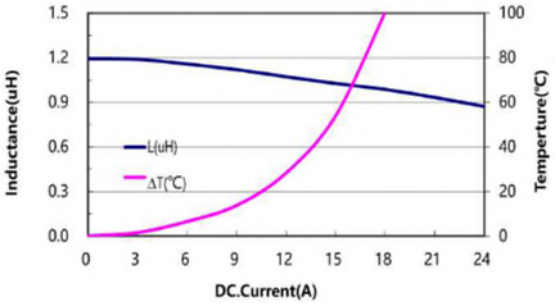
SPIM0603BS-R82MA



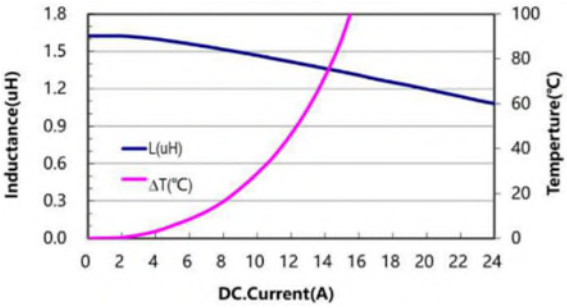
SPIM0603BS-1R0MA



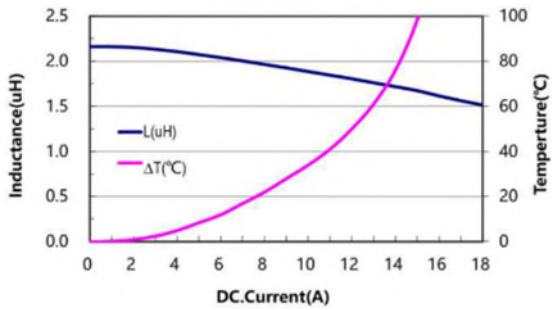
SPIM0603BS-1R2MA



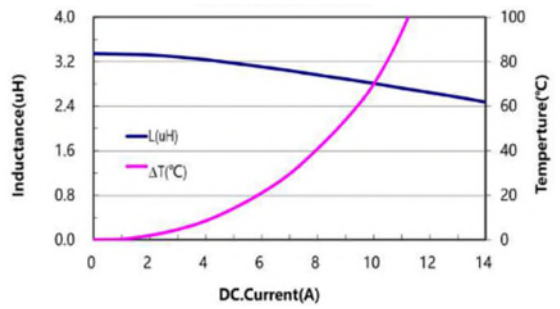
SPIM0603BS-1R5MA



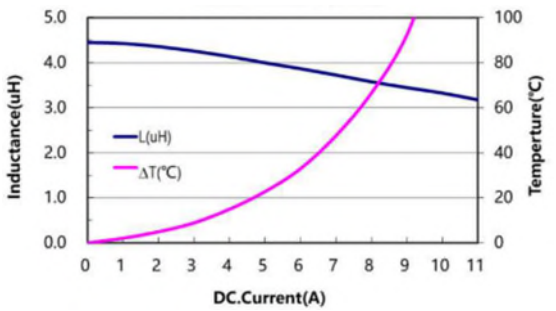
SPIM0603BS-2R2MA



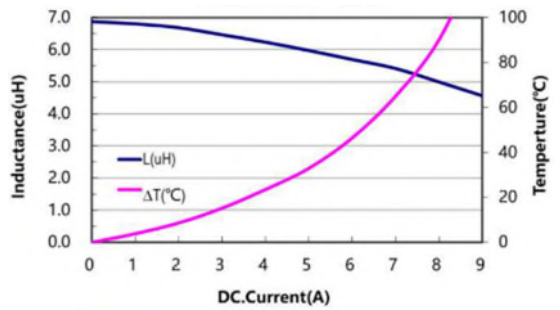
SPIM0603BS-3R3MA



SPIM0603BS-4R7MA



SPIM0603BS-6R8MA



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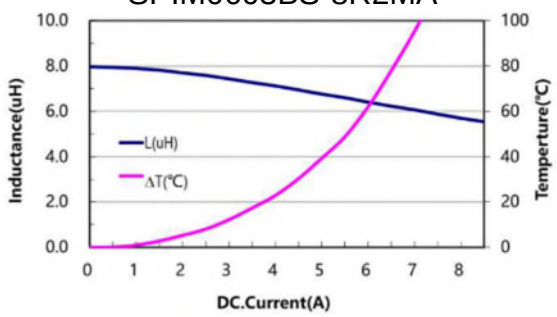
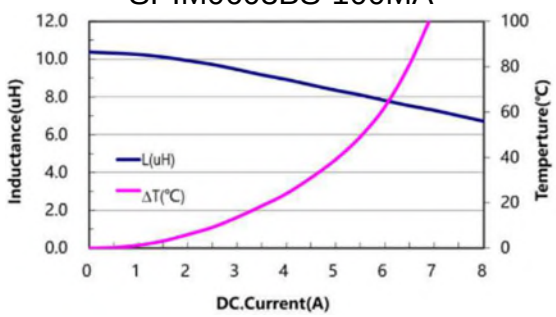
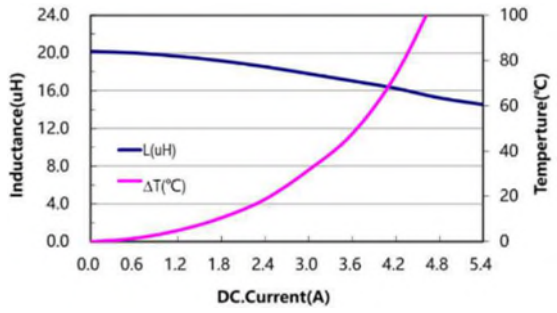
SPIM0603BS-8R2MA



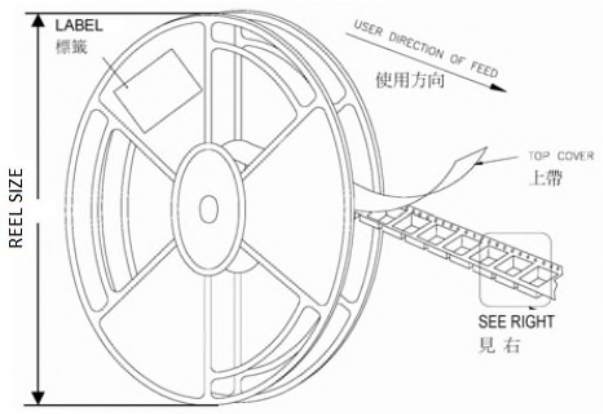
SPIM0603BS-100MA

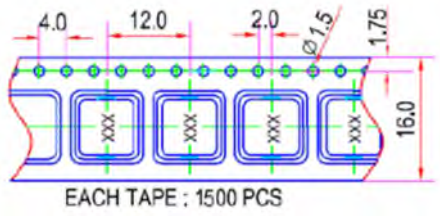


SPIM0603BS-220MA



■ REEL DIMENSIONS AND PACKAGING QUANTITY





Unit: mm

TYPE	W	P	REEL SIZE	PCS / REEL
SPIM0603BS Series	16	12	330 mm (13”)	1500

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■ NOTE

1. Storage condition:

To maintain the solderability of terminal electrodes:

1.1. Temperature and humidity conditions: 5~35℃ and 35~70%RH.

1.2. Storage life: 12 months Max. If product is preserved for more than 1 year, the solderability of their terminals may be deteriorated.

1.3. The packaging material should be kept where no chlorine or corrosive gas environment. (example: salt, sulfur, acid, etc ..)

2. Transportation

2.1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.

2.2. The use of tweezers or vacuum pick up is strongly recommended for individual components.

2.3. Bulk handling should ensure that abrasion and mechanical shock are minimized.

3. Application

The products listed on this datasheet are intended for use in general electronic equipment under a normal operation and use condition.
The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property. ETC shall not be held liable for any malfunction or breakdown caused by using product in the condition which is inconsistent with that recommended by ETC.

(1)Military equipment. (2)Medical equipment. (3)Aerospace equipment. (4) Other applications that are not considered general-purpose applications.