



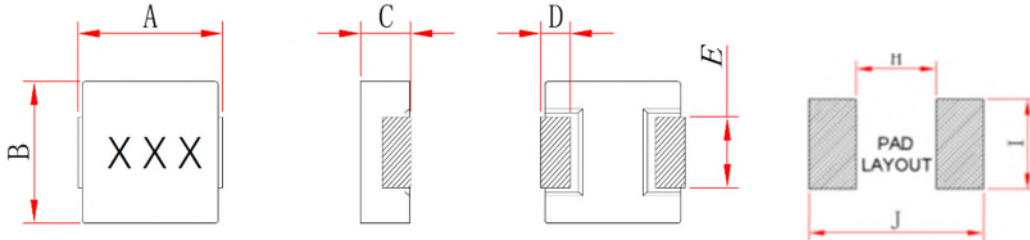
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**Shielded SMT High Current Power Inductor
AEC-Q200 standard compliance
SPIA0312 0302 series**

■ SHAPES AND DIMENSIONS



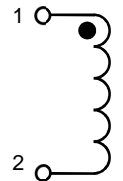
Unit: mm

Item	A	B	C	D	E	H	I	J
SPIA0312	3.4±0.2	3.0±0.2	1.0±0.2	0.7±0.3	1.3±0.2	1.2	2.0	4.2
SPIA0302	3.4±0.2	3.0±0.2	1.8±0.2	0.7±0.3	1.3±0.2	1.2	2.0	4.2

Marking :

XXX = Inductance

Schematic :



■ PART NUMBER CODE

SPIA 0312 - 1R0 M A
1 2 3 4 5

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



■ ELECTRICAL CHARACTERISTICS

1. Part Number and Characteristics Table

Part No.	Inductance L0 (uH)	DCR(mΩ)		Isat(A)		Irms(A)	
		Typ.	Max.	Typ.	Max.	Typ.	Max.
SPIA0312-R33MA	0.33	16.0	18.0	9.0	7.0	7.0	6.0
SPIA0312-1R0MA	1.0	38.0	45.0	4.8	4.0	3.5	3.0
SPIA0312-1R5MA	1.5	63.0	75.0	3.6	3.2	3.0	2.5
SPIA0312-2R2MA	2.2	82.0	102.0	2.8	2.4	2.2	2.0
SPIA0312-3R3MA	3.3	135.0	160.0	2.5	2.0	2.0	1.8
SPIA0312-4R7MA	4.7	150.0	180.0	2.2	1.8	1.6	1.4

Part No.	Inductance L0 (uH)	DCR(mΩ)		Isat(A)		Irms(A)	
		Typ.	Max.	Typ.	Max.	Typ.	Max.
SPIA0302-1R0MA	1.0	26.0	32.0	5.5	5.0	4.2	3.8
SPIA0302-1R5MA	1.5	36.0	45.0	4.8	4.2	3.6	3.2
SPIA0302-2R2MA	2.2	60.0	72.0	4.0	3.5	3.0	2.5
SPIA0302-3R3MA	3.3	81.0	100.0	3.2	2.8	2.4	2.0
SPIA0302-4R7MA	4.7	118.0	140.0	2.6	2.2	2.0	1.6
SPIA0302-6R8MA	6.8	152.0	180.0	2.2	1.8	1.4	1.0

Note 1: Referenced ambient temperature 25°C .

Note 2: Test Condition :1MHz ,1.0 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°C

Irms (Max): DC current (A) that will cause an ΔT of 40°C Max

Note 4: Operating temperature range includes self-temperature rise.

Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

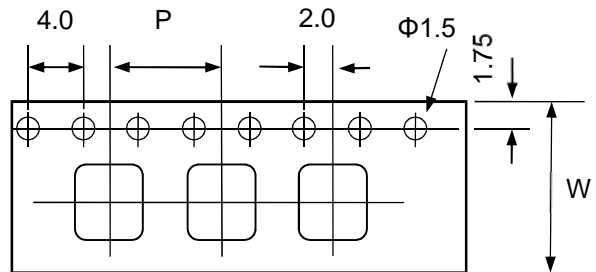
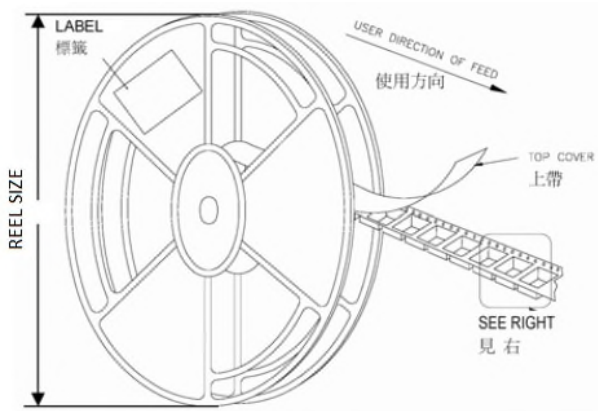
2. Test equipments

- 2.1. L: Agilent E4980 Precision LCR meter (Upgraded version of Agilent HP4284A) with HP42841A Current Source
- 2.2. DCR: Chroma16502 Milliohm Meter
- 2.3. IWT test: Chroma 19301(A) (Impulse winding test)
- 2.4. Operating temperature: -55°C to 155°C

* Equivalent measurement equipment may be used.



■ REEL DIMENSIONS AND PACKAGING QUANTITY



Unit: mm

TYPE	W	P	REEL SIZE	PCS / REEL
SPIA0312 series	12	8	330 mm (13")	4000
SPIA0302 series	12	8	330 mm (13")	3000