



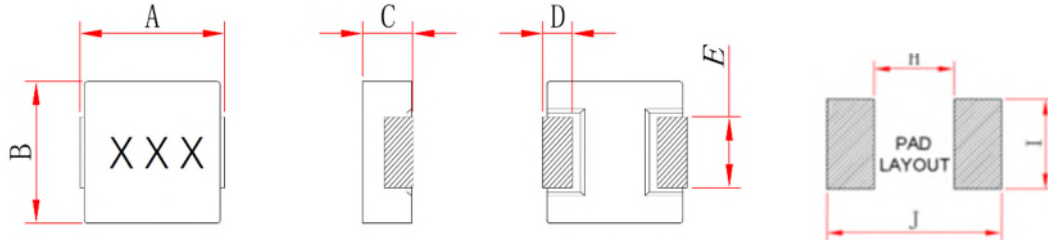
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**Shielded SMT High Current Power Inductor
AEC-Q200 standard compliance
SPIA0412 0402 series**

■ SHAPES AND DIMENSIONS



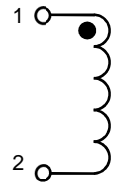
Unit: mm

Item	A	B	C	D	E	H	I	J
SPIA0412	4.4±0.2	4.0±0.2	1.0±0.2	0.76±0.3	2.0±0.3	2.16	2.30	4.95
SPIA0402	4.4±0.2	4.0±0.2	1.8±0.2	0.76±0.3	2.0±0.3	2.16	2.30	4.95

Marking :

XXX = Inductance

Schematic :



■ PART NUMBER CODE

SPIA 0412 - 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.
SPIA0412-R22MA	0.22	9.0	11.0	12.0	10.0	9.0	7.5
SPIA0412-1R0MA	1.0	36.0	43.0	6.5	5.5	4.5	4.0
SPIA0412-2R2MA	2.2	72.0	80.0	3.5	3.0	3.5	2.8
SPIA0412-4R7MA	4.7	130.0	145.0	2.5	2.0	2.0	1.6

Part No.	Inductance L0 (uH)	DCR(mΩ)		Isat(A)		Irms(A)	
		Typ.	Max.	Typ.	Max.	Typ.	Max.
SPIA0402-R47MA	0.47	12.0	14.0	11.0	10.0	8.5	7.5
SPIA0402-1R0MA	1.0	15.0	16.0	7.5	6.0	6.5	5.5
SPIA0402-2R2MA	2.2	32.0	38.0	5.0	4.2	4.0	3.5
SPIA0402-4R7MA	4.7	60.0	70.0	4.0	3.4	2.5	2.1
SPIA0402-6R8MA	6.8	99.0	120.0	2.5	2.2	2.0	1.6
SPIA0402-100MA	10.0	150.0	190.0	2.2	2.0	1.4	1.2
SPIA0402-150MA	15.0	250.0	290.0	1.8	1.5	1.3	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.

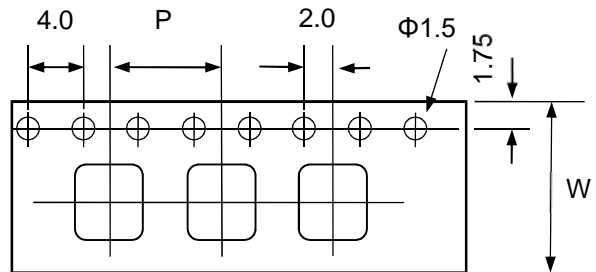
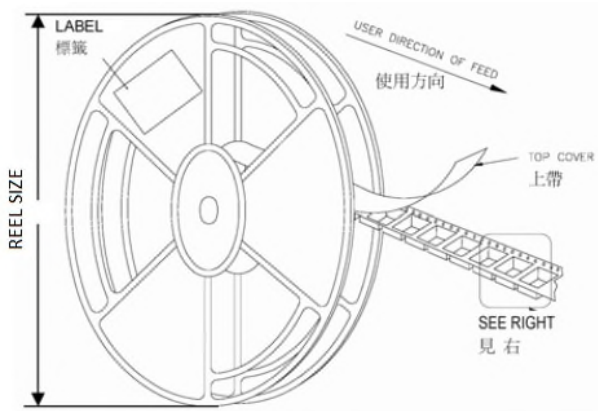
2. Test equipments

- 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
SPIA0412 series	12	8	330 mm (13")	4000
SPIA0402 series	12	8	330 mm (13")	3000