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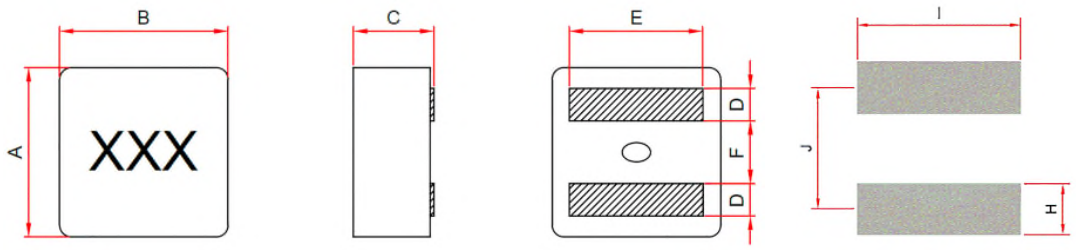
RoHS

Shielded SMT Power Inductor
AEC-Q200 standard compliance
STUA15-W Series

■ SHAPES AND DIMENSIONS



Unit: mm

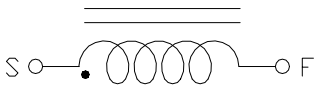
Recommend PAD Layout

P/N	A	B	C	D	E	F	H	I	J
STUA1508W	15.5±0.3	16.5±0.3	8.0 Max	3.20±0.3	13.2±0.5	7.00±0.5	4.50	15.0	10.5
STUA1510W	15.5±0.3	16.5±0.3	10.0 Max	3.20±0.3	13.2±0.5	7.00±0.5	4.50	15.0	10.5
STUA1513W	15.5±0.3	16.5±0.3	13.0 Max	3.20±0.3	13.2±0.5	7.00±0.5	4.50	15.0	10.5

Marking：

XXX = Inductance

Equivalent circuit



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■ PART NUMBER CODE

STUA	1510	W	-	1R0	M	A
1	2	3		4	5	6

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

■ ELECTRICAL CHARACTERISTICS

1. Test equipments

1.1. L : HP4285A,CH11025,CH3302,CH1320,CH1320S LCR Meter.

1.2. DCR: Chroma16502 Milliohm Meter.

1.3. Operating temperature range from -55℃ to 155℃ (includes self-temperature rise)

The part temperature (ambient + temp rise) should not exceed 155℃ under the worst case operating condition. Circuit design, component, PCB trace size and thickness airflow and other cooling provisions all could affect the part temperature. Part temperature should be verified in the end application.

* Equivalent measurement equipment may be used.

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2. Part Number and Characteristics Table

Part No.	Inductance L0 (uH)	Tolerance (±%)	DCR(mΩ)	Isat(A)		Irms(A)	
			Max.	Max.	Typ.	Max.	Typ.
STUA1508W-2R0MA	2.0	20	2.21	52.0	57.0	29.5	40.0
STUA1508W-2R2MA	2.2	20	2.48	47.0	50.0	28.0	37.0
STUA1508W-3R0MA	3.0	20	3.00	41.0	46.0	26.0	34.5
STUA1508W-4R2MA	4.2	20	4.68	33.0	38.0	20.5	27.0
STUA1508W-5R3MA	5.3	20	5.34	31.0	35.0	19.5	26.0
STUA1508W-6R2MA	6.2	20	6.50	31.0	34.0	17.0	23.0
STUA1508W-7R2MA	7.2	20	7.20	27.0	32.0	15.0	21.0
STUA1508W-8R2MA	8.2	20	7.92	25.0	28.0	13.0	19.0
STUA1508W-100MA	10.0	20	9.60	21.0	24.0	11.0	16.0
STUA1508W-150MA	15.0	20	15.0	18.0	19.0	10.0	13.0
STUA1508W-220MA	22.0	20	23.2	16.0	19.0	9.0	12.0

Note:

- All test data is referenced to 25°C ambient.
- Test Condition: 100KHz, 0.1 Vrms.
- Isat (Typ): DC current（A）that will cause L0 to drop approximately 30%.
- Irms (Typ): DC current（A）that will cause an approximate ΔT of 40℃.

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Part No.	Inductance L0 (uH)	Tolerance (±%)	DCR(mΩ)	Isat(A)		Irms(A)	
			Max.	Max.	Typ.	Max.	Typ.
STUA1510W-4R7MA	4.7	20	3.8	39.0	43.0	22.0	30.0
STUA1510W-5R6MA	5.6	20	4.2	34.0	38.0	21.0	28.0
STUA1510W-6R8MA	6.8	20	4.6	30.0	36.0	20.0	26.0
STUA1510W-8R2MA	8.2	20	7.2	28.0	32.0	19.0	25.0
STUA1510W-100MA	10.0	20	8.6	26.0	29.0	18.0	24.0
STUA1510W-150MA	15.0	20	11.5	18.0	20.0	14.0	18.0
STUA1510W-220MA	22.0	20	15.8	16.0	18.0	10.5	14.2
STUA1510W-330MA	33.0	20	20.0	13.0	16.7	8.6	12.3

Note:

- All test data is referenced to 25°C ambient.
- Test Condition: 100KHz, 0.1 Vrms.
- Isat (Typ): DC current（A）that will cause L0 to drop approximately 30%.
- Irms (Typ): DC current（A）that will cause an approximate ΔT of 40℃.

Part No.	Inductance L0 (uH)	Tolerance (±%)	DCR(mΩ)	Isat(A)		Irms(A)	
			Max.	Max.	Typ.	Max.	Typ.
STUA1513W-4R7MA	4.7	20	3.3	36.0	44.0	23.0	31.0
STUA1513W-5R6MA	5.6	20	3.9	35.0	40.0	22.0	29.0
STUA1513W-6R8MA	6.8	20	4.2	32.0	37.0	21.0	27.0
STUA1513W-8R2MA	8.2	20	5.74	29.0	33.0	20.0	26.0
STUA1513W-100MA	10.0	20	7.0	24.0	29.0	19.0	25.0
STUA1513W-150MA	15.0	20	7.5	21.0	25.5	16.0	22.0
STUA1513W-220MA	22.0	20	13.86	17.0	22.0	12.0	17.0
STUA1513W-330MA	33.0	20	22.2	16.0	17.0	9.0	14.0

Note:

- All test data is referenced to 25°C ambient.
- Test Condition: 100KHz, 0.1 Vrms.
- Isat (Typ): DC current（A）that will cause L0 to drop approximately 30%.
- Irms (Typ): DC current（A）that will cause an approximate ΔT of 40℃.

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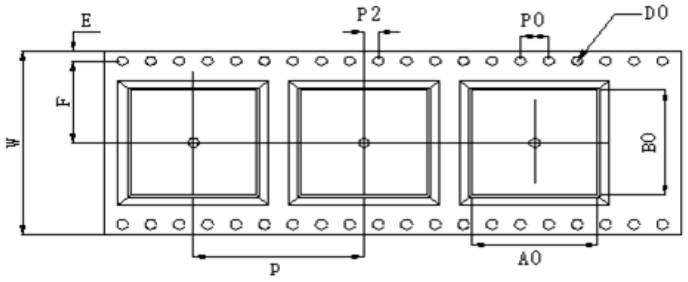
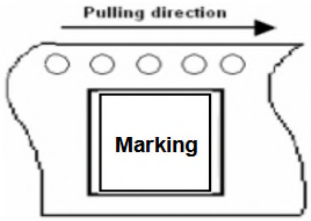
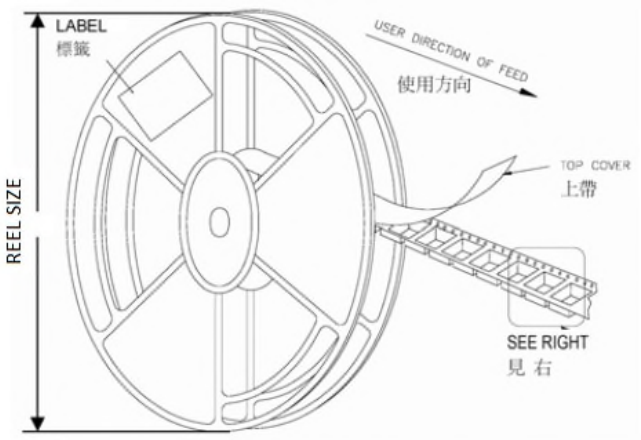
■ REEL DIMENSIONS AND PACKAGING QUANTITY







Unit: mm

TYPE	W	P	REEL SIZE	PCS / REEL
STUA1508W	32	24	330 mm (13”)	200
STUA1510W	32	24	330 mm (13”)	150
STUA1513W	32	24	330 mm (13”)	100

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