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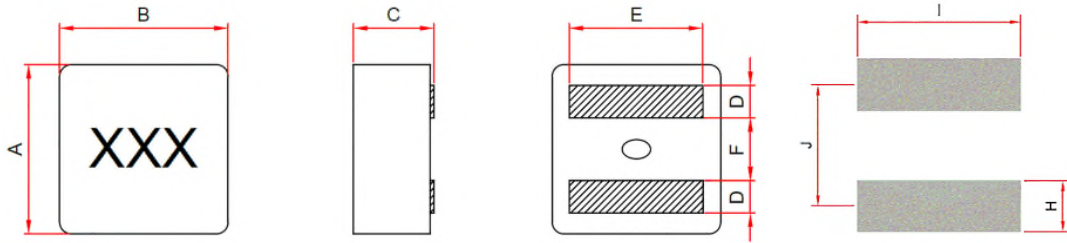
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Shielded SMT Power Inductor STU15-W Series

■ SHAPES AND DIMENSIONS



Unit: mm

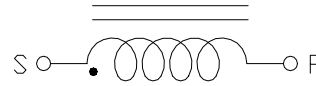
Recommend PAD Layout

P/N	A	B	C	D	E	F	H	I	J
STU1508W	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
STU1510W	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
STU1513W	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





■ PART NUMBER CODE

STU 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 =1.0 μH
5. Inductance tolerance: "M" $\pm 20\%$
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°C to 125°C (includes self-temperature rise)

The part temperature (ambient + temp rise) should not exceed 125°C 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.



2. Part Number and Characteristics Table

Part No.	Inductance L0 (uH)	Tolerance (±%)	DCR(mΩ)	Isat(A)		Irms(A)	
			Max.	Max.	Typ.	Max.	Typ.
STU1508W-2R0MA	2.0	20	2.21	52.0	57.0	29.5	40.0
STU1508W-2R2MA	2.2	20	2.48	47.0	50.0	28.0	37.0
STU1508W-3R0MA	3.0	20	3.00	41.0	46.0	26.0	34.5
STU1508W-4R2MA	4.2	20	4.68	33.0	38.0	20.5	27.0
STU1508W-5R3MA	5.3	20	5.34	31.0	35.0	19.5	26.0
STU1508W-6R2MA	6.2	20	6.50	31.0	34.0	17.0	23.0
STU1508W-7R2MA	7.2	20	7.20	27.0	32.0	15.0	21.0
STU1508W-8R2MA	8.2	20	7.92	25.0	28.0	13.0	19.0
STU1508W-100MA	10.0	20	9.60	21.0	24.0	11.0	16.0
STU1508W-150MA	15.0	20	15.0	18.0	19.0	10.0	13.0
STU1508W-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°C .



Part No.	Inductance L0 (uH)	Tolerance (±%)	DCR(mΩ)	Isat(A)		Irms(A)	
			Max.	Max.	Typ.	Max.	Typ.
STU1510W-4R7MA	4.7	20	3.8	39.0	43.0	22.0	30.0
STU1510W-5R6MA	5.6	20	4.2	34.0	38.0	21.0	28.0
STU1510W-6R8MA	6.8	20	4.6	30.0	36.0	20.0	26.0
STU1510W-8R2MA	8.2	20	7.2	28.0	32.0	19.0	25.0
STU1510W-100MA	10.0	20	8.6	26.0	29.0	18.0	24.0
STU1510W-150MA	15.0	20	11.5	18.0	20.0	14.0	18.0
STU1510W-220MA	22.0	20	15.8	16.0	18.0	10.5	14.2
STU1510W-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°C .



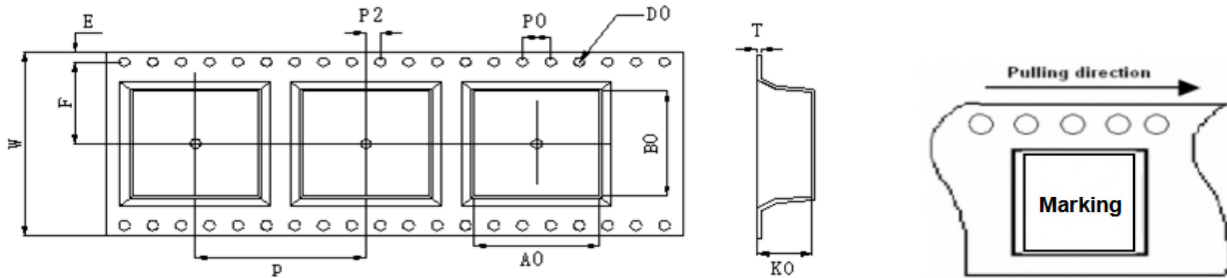
Part No.	Inductance L0 (uH)	Tolerance (±%)	DCR(mΩ)	Isat(A)		Irms(A)	
			Max.	Max.	Typ.	Max.	Typ.
STU1513W-4R7MA	4.7	20	3.3	36.0	44.0	23.0	31.0
STU1513W-5R6MA	5.6	20	3.9	35.0	40.0	22.0	29.0
STU1513W-6R8MA	6.8	20	4.2	32.0	37.0	21.0	27.0
STU1513W-8R2MA	8.2	20	5.74	29.0	33.0	20.0	26.0
STU1513W-100MA	10.0	20	7.0	24.0	29.0	19.0	25.0
STU1513W-150MA	15.0	20	7.5	21.0	25.5	16.0	22.0
STU1513W-220MA	22.0	20	13.86	17.0	22.0	12.0	17.0
STU1513W-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°C.

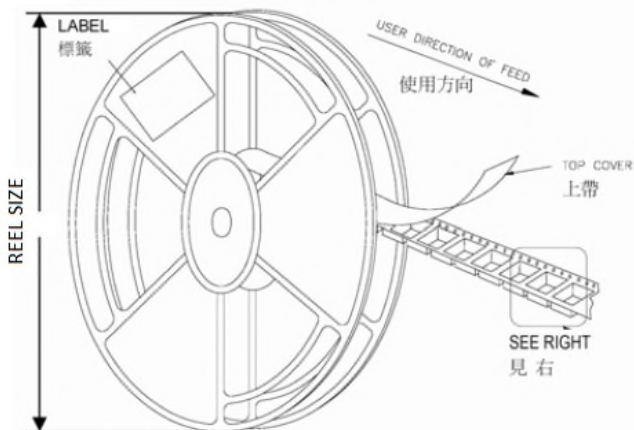


REEL DIMENSIONS AND PACKAGING QUANTITY



Tape dimensions (mm)

P/N	W	P	P0	P2	D0	T	A0	B0	K0	E	F
STU1508W	32±0.3	24±0.1	4±0.1	2±0.1	1.5±0.1	0.5±0.05	17.0±0.1	16.0±0.1	8.5±0.1	1.75±0.1	14.2±0.1
STU1510W	32±0.3	24±0.1	4±0.1	2±0.1	1.5±0.1	0.5±0.05	17.0±0.1	16.0±0.1	10.5±0.1	1.75±0.1	14.2±0.1
STU1513W	32±0.3	24±0.1	4±0.1	2±0.1	1.5±0.1	0.5±0.05	17.0±0.1	16.0±0.1	13.6±0.1	1.75±0.1	14.2±0.1



Unit: mm

TYPE	W	P	REEL SIZE	PCS / REEL
STU1508W	32	24	330 mm (13")	200
STU1510W	32	24	330 mm (13")	150
STU1513W	32	24	330 mm (13")	100