



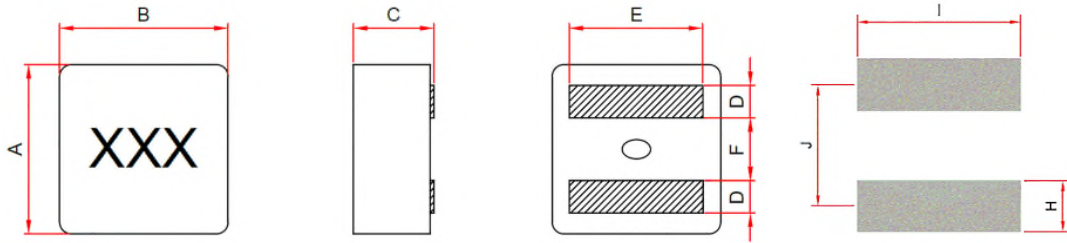
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Shielded SMT Power Inductor STU06-W Series

■ SHAPES AND DIMENSIONS



Unit: mm

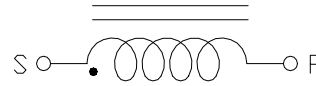
Recommend PAD Layout

P/N	A	B	C	D	E	F	H	I	J
STU0631W	6.40±0.2	6.60±0.2	3.10 Max	1.40±0.3	See table	2.60±0.3	1.55	5.60	4.05
STU0605W	6.40±0.2	6.60±0.2	5.00 Max	1.40±0.3	See table	2.60±0.3	1.55	5.60	4.05
STU0606W	6.40±0.2	6.60±0.2	6.00 Max	1.40±0.3	5.30±0.3	2.60±0.3	1.55	5.60	4.05

Marking :

XXX = Inductance

Equivalent circuit





■ PART NUMBER CODE

STU 0631 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)		E(mm)
			Max.	Max.	Typ.	Max.	Typ.	±0.3
STU0631W-R18MA	0.18	20	1.75	36.0	40.0	24.0	32.0	5.30
STU0631W-R33MA	0.33	20	2.50	28.0	32.0	20.0	25.0	5.55
STU0631W-R56MA	0.56	20	3.31	25.0	29.0	17.0	22.0	5.30
STU0631W-R68MA	0.68	20	5.17	21.0	25.0	15.0	20.0	5.30
STU0631W-1R0MA	1.00	20	6.05	18.0	22.0	13.0	18.0	5.20
STU0631W-1R2MA	1.20	20	7.40	16.0	21.0	12.0	16.0	5.15
STU0631W-1R5MA	1.50	20	9.13	13.5	17.5	11.0	15.0	5.15
STU0631W-1R8MA	1.80	20	10.2	13.0	16.0	10.0	14.0	5.10
STU0631W-2R2MA	2.20	20	12.2	11.0	15.9	7.00	10.0	5.05
STU0631W-3R3MA	3.30	20	20.8	9.00	12.2	6.00	8.00	5.00
STU0631W-4R5MA	4.50	20	25.3	8.00	10.0	5.00	7.00	5.00

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)		E(mm)
			Max.	Max.	Typ.	Max.	Typ.	±0.3
STU0605W-R82MA	0.82	20	4.18	18.0	23.0	16.0	21.0	5.30
STU0605W-1R0MA	1.00	20	4.52	18.0	23.0	15.0	20.0	5.30
STU0605W-1R2MA	1.20	20	5.83	16.0	20.5	14.0	18.0	5.30
STU0605W-1R5MA	1.50	20	6.30	14.5	19.5	13.0	17.0	5.30
STU0605W-1R8MA	1.80	20	7.10	13.5	17.5	12.0	16.0	5.30
STU0605W-2R2MA	2.20	20	8.50	12.0	14.5	10.0	13.0	5.20
STU0605W-3R3MA	3.30	20	12.5	10.0	12.5	8.5	11.0	5.20
STU0605W-4R3MA	4.30	20	16.2	8.5	11.0	7.0	9.0	5.20
STU0605W-4R7MA	4.70	20	18.4	8.0	10.5	6.5	8.5	5.20

Note:

- All test data is referenced to 25°C ambient.
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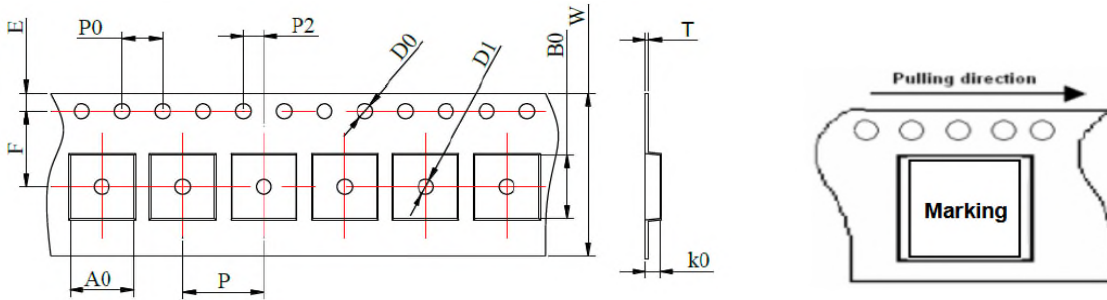
Part No.	Inductance L0 (uH)	Tolerance (±%)	DCR(mΩ)	Isat(A)		Irms(A)	
			Max.	Max.	Typ.	Max.	Typ.
STU0606W-1R0MA	1.0	20	4.4	19.0	24.0	16.0	21.0
STU0606W-1R5MA	1.5	20	6.1	15.0	20.0	13.5	17.5
STU0606W-2R2MA	2.2	20	8.1	12.5	15.5	11.0	14.0
STU0606W-3R3MA	3.3	20	12.3	11.0	13.0	9.0	12.0
STU0606W-4R7MA	4.7	20	14.4	9.3	10.5	8.5	11.0
STU0606W-5R6MA	5.6	20	15.9	8.7	9.9	7.6	10.0
STU0606W-6R8MA	6.8	20	20.8	8.1	9.2	7.0	9.0
STU0606W-8R2MA	8.2	20	26.4	8.0	8.4	6.0	8.0
STU0606W-100MA	10.0	20	29.82	6.8	7.6	5.0	7.0
STU0606W-150MA	15.0	20	43.75	5.0	5.8	4.5	6.0
STU0606W-220MA	22.0	20	60.63	4.8	5.6	3.8	5.0

Note:

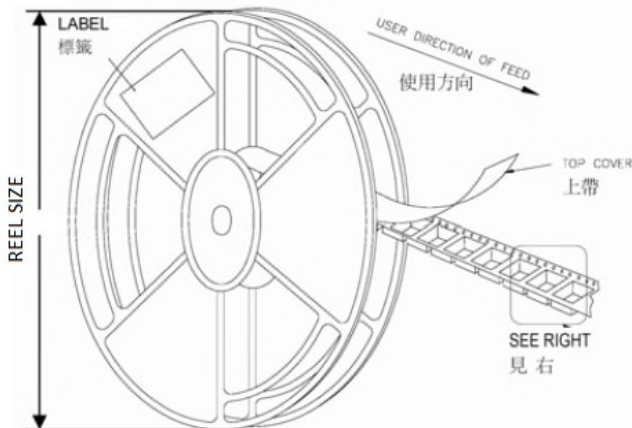
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- Test Condition: 100KHz, 0.1 Vrms.
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REEL DIMENSIONS AND PACKAGING QUANTITY



Tape dimensions (mm)												
P/N	W	P	P0	P2	D0	D1	T	A0	B0	K0	E	F
STU0631W	16±0.3	12±0.1	4±0.1	2±0.1	1.5±0.1	1.5±0.1	0.35±0.05	7.0±0.1	6.8±0.1	3.3±0.1	1.75±0.1	7.5±0.1
STU0605W	16±0.3	12±0.1	4±0.1	2±0.1	1.5±0.1	1.5±0.1	0.35±0.05	7.0±0.1	6.8±0.1	5.3±0.1	1.75±0.1	7.5±0.1
STU0606W	16±0.3	12±0.1	4±0.1	2±0.1	1.5±0.1	1.5±0.1	0.35±0.05	7.0±0.1	6.8±0.1	6.3±0.1	1.75±0.1	7.5±0.1



Unit: mm

TYPE	W	P	REEL SIZE	PCS / REEL
STU0631W	16	12	330 mm (13")	1000
STU0605W	16	12	330 mm (13")	800
STU0606W	16	12	330 mm (13")	750