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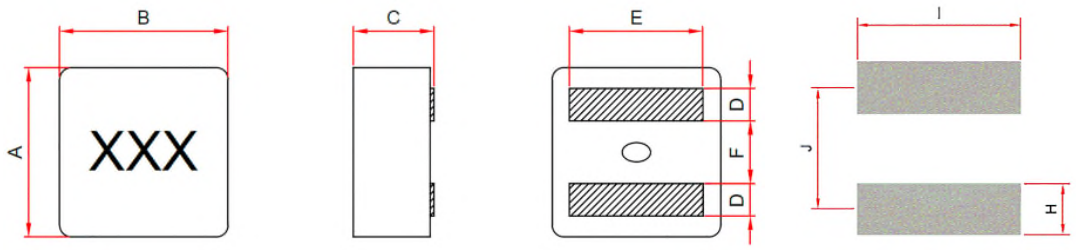
RoHS

Shielded SMT Power Inductor
AEC-Q200 standard compliance
STUA06-W Series

■ SHAPES AND DIMENSIONS



Unit: mm

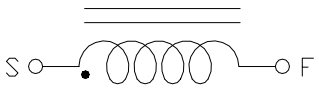
Recommend PAD Layout

P/N	A	B	C	D	E	F	H	I	J
STUA0631W	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
STUA0605W	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
STUA0606W	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



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■ PART NUMBER CODE

STUA	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 =1.0uH
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)		E(mm)
			Max.	Max.	Typ.	Max.	Typ.	±0.3
STUA0631W-R18MA	0.18	20	1.75	36.0	40.0	24.0	32.0	5.30
STUA0631W-R33MA	0.33	20	2.50	28.0	32.0	20.0	25.0	5.55
STUA0631W-R56MA	0.56	20	3.31	25.0	29.0	17.0	22.0	5.30
STUA0631W-R68MA	0.68	20	5.17	21.0	25.0	15.0	20.0	5.30
STUA0631W-1R0MA	1.00	20	6.05	18.0	22.0	13.0	18.0	5.20
STUA0631W-1R2MA	1.20	20	7.40	16.0	21.0	12.0	16.0	5.15
STUA0631W-1R5MA	1.50	20	9.13	13.5	17.5	11.0	15.0	5.15
STUA0631W-1R8MA	1.80	20	10.2	13.0	16.0	10.0	14.0	5.10
STUA0631W-2R2MA	2.20	20	12.2	11.0	15.9	7.00	10.0	5.05
STUA0631W-3R3MA	3.30	20	20.8	9.00	12.2	6.00	8.00	5.00
STUA0631W-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℃.

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Part No.	Inductance L0 (uH)	Tolerance (±%)	DCR(mΩ)	Isat(A)		Irms(A)		E(mm)
			Max.	Max.	Typ.	Max.	Typ.	±0.3
STUA0605W-R82MA	0.82	20	4.18	18.0	23.0	16.0	21.0	5.30
STUA0605W-1R0MA	1.00	20	4.52	18.0	23.0	15.0	20.0	5.30
STUA0605W-1R2MA	1.20	20	5.83	16.0	20.5	14.0	18.0	5.30
STUA0605W-1R5MA	1.50	20	6.30	14.5	19.5	13.0	17.0	5.30
STUA0605W-1R8MA	1.80	20	7.10	13.5	17.5	12.0	16.0	5.30
STUA0605W-2R2MA	2.20	20	8.50	12.0	14.5	10.0	13.0	5.20
STUA0605W-3R3MA	3.30	20	12.5	10.0	12.5	8.5	11.0	5.20
STUA0605W-4R3MA	4.30	20	16.2	8.5	11.0	7.0	9.0	5.20
STUA0605W-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.
- Test Condition: 100KHz, 0.1 Vrms.
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Part No.	Inductance L0 (uH)	Tolerance (±%)	DCR(mΩ)	Isat(A)		Irms(A)	
			Max.	Max.	Typ.	Max.	Typ.
STUA0606W-1R0MA	1.0	20	4.4	19.0	24.0	16.0	21.0
STUA0606W-1R5MA	1.5	20	6.1	15.0	20.0	13.5	17.5
STUA0606W-2R2MA	2.2	20	8.1	12.5	15.5	11.0	14.0
STUA0606W-3R3MA	3.3	20	12.3	11.0	13.0	9.0	12.0
STUA0606W-4R7MA	4.7	20	14.4	9.3	10.5	8.5	11.0
STUA0606W-5R6MA	5.6	20	15.9	8.7	9.9	7.6	10.0
STUA0606W-6R8MA	6.8	20	20.8	8.1	9.2	7.0	9.0
STUA0606W-8R2MA	8.2	20	26.4	8.0	8.4	6.0	8.0
STUA0606W-100MA	10.0	20	29.82	6.8	7.6	5.0	7.0
STUA0606W-150MA	15.0	20	43.75	5.0	5.8	4.5	6.0
STUA0606W-220MA	22.0	20	60.63	4.8	5.6	3.8	5.0

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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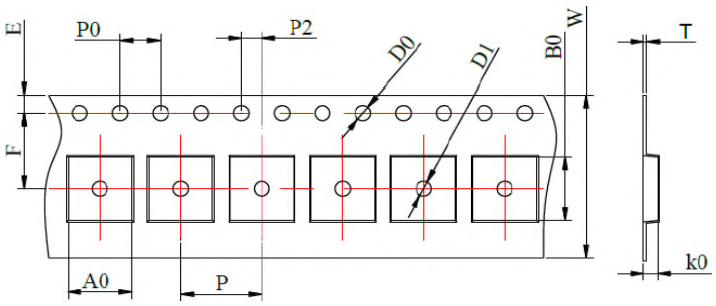
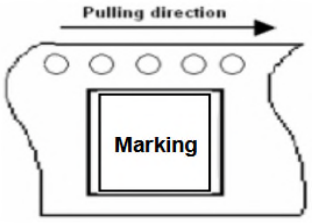
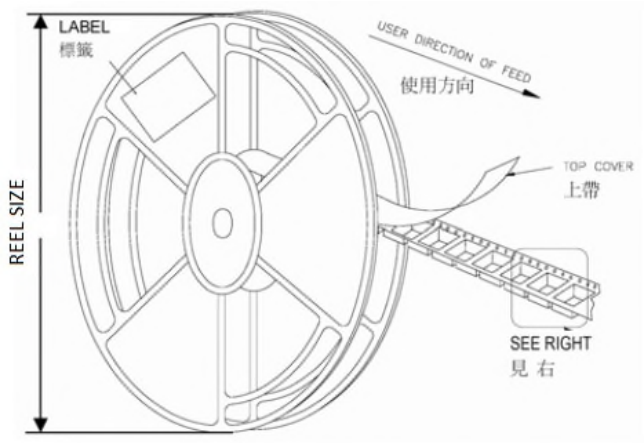
■ REEL DIMENSIONS AND PACKAGING QUANTITY







Unit: mm

TYPE	W	P	REEL SIZE	PCS / REEL
STUA0631W	16	12	330 mm (13”)	1000
STUA0605W	16	12	330 mm (13”)	800
STUA0606W	16	12	330 mm (13”)	750

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