



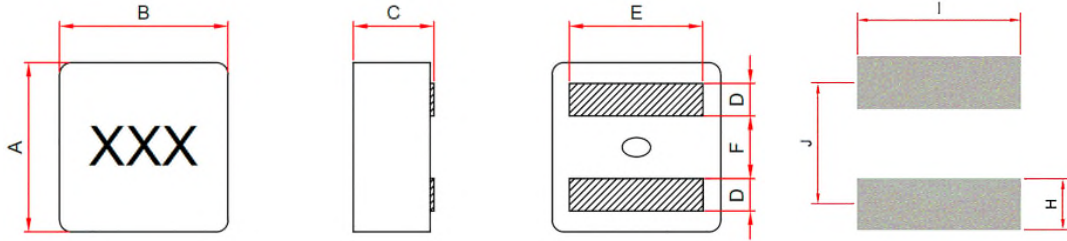
INDEX

SHAPES AND DIMENSIONS.....	1
PART NUMBER CODE	2
ELECTRICAL CHARACTERISTICS	2
REEL DIMENSIONS AND PACKAGING QUANTITY	5



Shielded SMT Power Inductor STU04-W Series

■ SHAPES AND DIMENSIONS



Unit: mm

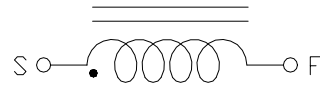
Recommend PAD Layout

P/N	A	B	C	D	E	F	H	I	J
STU0421W	4.10±0.20	4.10±0.20	2.10 Max	0.88±0.3	3.40±0.3	1.70±0.3	1.00	3.80	2.40
STU0403W	4.10±0.25	4.10±0.25	3.00 Max	0.88±0.3	3.40±0.3	1.70±0.3	1.00	3.80	2.40

Marking :

XXX = Inductance

Equivalent circuit





■ PART NUMBER CODE

STU 0421 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 $^{\circ}\text{C}$ to 125 $^{\circ}\text{C}$ (includes self-temperature rise)

The part temperature (ambient + temp rise) should not exceed 125 $^{\circ}\text{C}$ 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.
STU0421W-R10MA	0.10	20	2.42	33.0	38.0	13.5	18.0
STU0421W-R22MA	0.22	20	4.60	18.8	19.5	13.0	16.8
STU0421W-R36MA	0.36	20	6.30	15.0	17.0	11.0	14.5
STU0421W-R40MA	0.40	20	7.73	13.5	15.5	10.0	14.0
STU0421W-R47MA	0.47	20	8.58	13.0	14.5	9.0	12.5
STU0421W-R56MA	0.56	20	9.30	12.6	14.0	8.5	12.0
STU0421W-R60MA	0.60	20	9.52	12.3	13.7	8.0	11.7
STU0421W-R72MA	0.72	20	11.6	10.6	12.0	7.6	10.5
STU0421W-1R0MA	1.00	20	14.6	8.8	9.6	6.8	9.6
STU0421W-1R2MA	1.20	20	17.9	7.8	9.0	6.6	9.0
STU0421W-1R5MA	1.50	20	23.5	7.4	8.0	5.8	7.6
STU0421W-1R8MA	1.80	20	28.0	7.0	7.5	5.2	7.0
STU0421W-2R2MA	2.20	20	38.7	6.0	6.5	4.6	5.6

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.



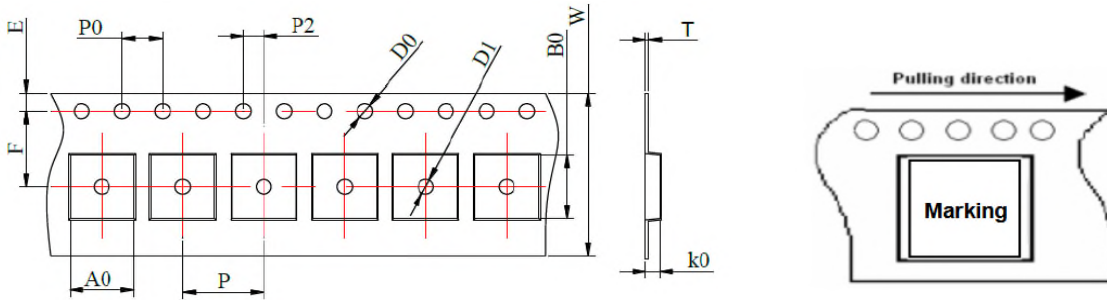
Part No.	Inductance L0 (uH)	Tolerance (±%)	DCR(mΩ)	Isat(A)		Irms(A)	
			Max.	Max.	Typ.	Max.	Typ.
STU0403W-R47MA	0.47	20	7.26	13.5	16.0	10.0	14.0
STU0403W-R90MA	0.90	20	10.1	9.2	10.0	8.2	11.2
STU0403W-1R0MA	1.00	20	10.1	9.2	9.8	8.0	11.0
STU0403W-1R2MA	1.20	20	11.5	8.7	9.2	7.8	9.8
STU0403W-1R5MA	1.50	20	13.2	7.0	8.0	7.0	9.0
STU0403W-2R2MA	2.20	20	22.6	6.1	7.0	6.0	7.8
STU0403W-3R3MA	3.30	20	28.6	5.3	6.2	5.0	6.6
STU0403W-4R7MA	4.70	20	44.1	4.0	4.5	3.9	5.1
STU0403W-6R8MA	6.80	20	74.1	3.0	3.6	3.0	3.9

Note:

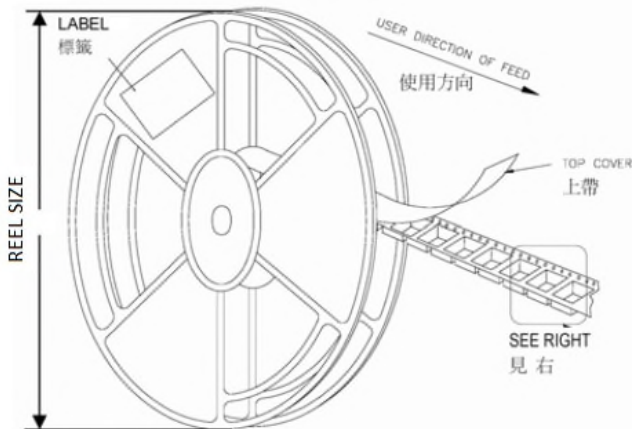
- All test data is referenced to 25°C ambient.
- Test Condition: 100KHz, 0.1 Vrms.
- Isat (Typ): DC current (A) that will cause L0 to drop approximately 30%.
- Irms (Typ): DC current (A) that will cause an approximate ΔT of 40°C.



REEL DIMENSIONS AND PACKAGING QUANTITY



Tape dimensions (mm)												
P/N	W	P	P0	P2	D0	D1	T	A0	B0	K0	E	F
STU0421W	12±0.3	8±0.1	4±0.1	2±0.1	1.5±0.1	1.5±0.1	0.35±0.05	4.5±0.1	4.5±0.1	2.3±0.1	1.75±0.1	5.5±0.1
STU0403W	12±0.3	8±0.1	4±0.1	2±0.1	1.5±0.1	1.5±0.1	0.35±0.05	4.5±0.1	4.5±0.1	3.3±0.1	1.75±0.1	5.5±0.1



Unit: mm

TYPE	W	P	REEL SIZE	PCS / REEL
STU0421W	12	8	330 mm (13")	3000
STU0403W	12	8	330 mm (13")	2000