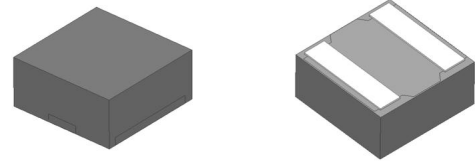


SMD MOLDING POWER INDUCTOR



● FEATURES 特性

- 1.磁屏蔽结构,T core 工艺,闭合磁路,抗电磁干扰强.
- 2.低DCR和ACR损耗.
- 3.在高频和高温环境下保持优良的温升电流及饱和电流特性.
- 4.满足AEC-Q200 Grade1(-40-125°C).

● PART NUMBERING SYSTEM 品名系统

ACKSTW 0603S - 1uH - M

A B C D

A: Type 型号 B: External Dimensions 外形尺寸

C: Indutance 电感值 D: Indutance Tolerance 电感值公差 (M:±20% N:±30%)

● EXTERNAL DIMENSIONS 外形尺寸 (Unit:mm)

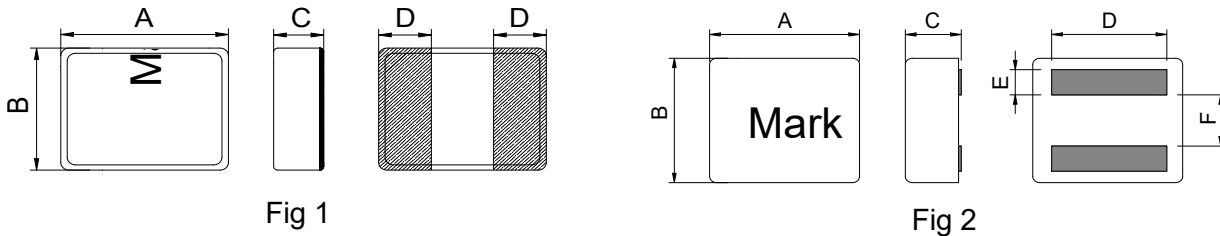
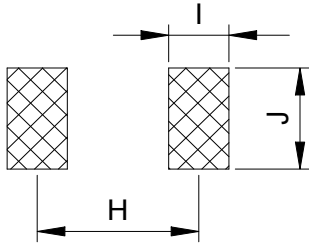


Fig 1

Fig 2

TYPE(型号)	A	B	C	D	E	F	Fig
ACKSTT0402	4.0±0.3	4.0±0.3	2.1 Max	1.1±0.3	/	/	1
ACKSTT0403	4.0±0.3	4.0±0.3	3.1 Max.	1.1±0.3	/	/	1
ACKSTT0503	5.28±0.3	5.48±0.3	3.1 Max.	1.7±0.3	/	/	1
ACKSTF0402S	4.0±0.2	4.0±0.2	2.1 Max.	3.25 Typ.	0.85±0.2	1.57±0.3	2
ACKSTW0503S	5.48±0.3	5.28±0.3	3.1 Max.	4.2 Typ.	1.0±0.2	2.3±0.3	2
ACKSTW0603S	6.6±0.3	6.4±0.3	3.1 Max.	5.0 Typ.	1.25±0.2	2.8±0.3	2
ACKSTW0805S	8.6±0.3	8.1±0.3	5.0 Max.	6.5 Typ.	1.6±0.2	3.56±0.3	2
ACKSTW0806S	8.6±0.3	8.1±0.3	6.0 Max.	6.5 Typ.	1.6±0.2	3.56±0.3	2
ACKSTW0807S	8.6±0.3	8.1±0.3	7.0 Max.	6.5 Typ.	1.6±0.2	3.56±0.3	2
ACKSTF1004S	11.3±0.5	10.0±0.5	4.0 Max.	8.0 Typ.	2.2±0.2	4.45±0.3	2
ACKSTW1006S	11.3±0.5	10.0±0.5	6.0 Max.	8.0 Typ.	2.2±0.2	4.45±0.3	2

● **RECOMMENDED PATTERNS**



ACKSTT Series

TYPE(型号)	H	I	J
ACKSTT0402	3.5	1.5	4.5
ACKSTT0403	3.5	1.5	4.5
ACKSTT0503	3.8	2.2	6

ACKSTF,ACKSTW Series

TYPE(型号)	H	I	J
ACKSTF0402S	2.37	1.1	3.8
ACKSTW0503S	3.3	1.3	4.7
ACKSTW0603S	4.05	1.55	5.5
ACKSTW0805S	5.2	2.0	7.0
ACKSTW0806S	5.2	2.0	7.0
ACKSTW0807S	5.2	2.0	7.0
ACKSTF1004S	6.65	2.6	9.0
ACKSTW1006S	6.65	2.6	9.0



● SPECIFICATION TABLE:

ACKSTF0402S Series

PART NUMBER	INDUCTANCE (μ H)	DCR (m Ω) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTF0402S-0.47uH/M	0.47 \pm 20%	4.80	5.80	15.0	17.0
ACKSTF0402S-0.6uH/M	0.6 \pm 20%	6.80	7.50	13.0	14.1
ACKSTF0402S-1uH/M	1 \pm 20%	10.00	11.00	9.7	10.5
ACKSTF0402S-1.2uH/M	1.2 \pm 20%	11.20	13.50	9.0	9.7
ACKSTF0402S-1.5uH/M	1.5 \pm 20%	20.30	23.30	8.0	8.7
ACKSTF0402S-2.2uH/M	2.2 \pm 20%	22.50	25.80	8.0	8.0
ACKSTF0402S-3.3uH/M	3.3 \pm 20%	34.20	38.30	6.0	5.5
ACKSTF0402S-4.7uH/M	4.7 \pm 20%	47.20	54.20	4.8	5.2

Remark: ● All test data is reference to 25 $^{\circ}$ C ambient.

- Test Condition: 1MHz, 0.1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate Δ T of 40 $^{\circ}$ C
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 60V



● **SPECIFICATION TABLE:**

ACKSTT0402 Series

PART NUMBER	INDUCTANCE (μ H)	DCR (m Ω) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTT0402-0.68uH/M	0.68 \pm 20%	5.90	6.80	15.0	16.7
ACKSTT0402-1uH/M	1 \pm 20%	7.50	8.50	11.0	12.4
ACKSTT0402-1.5uH/M	1.5 \pm 20%	13.00	14.30	9.0	11.1
ACKSTT0402-2.2uH/M	2.2 \pm 20%	18.10	20.00	7.5	9.0
ACKSTT0402-3.3uH/M	3.3 \pm 20%	28.60	31.50	7.0	7.3
ACKSTT0402-4.7uH/M	4.7 \pm 20%	43.00	47.30	6.0	5.6
ACKSTT0402-5.6uH/M	5.6 \pm 20%	45.00	49.50	5.0	5.3
ACKSTT0402-6.8uH/M	6.8 \pm 20%	74.40	85.00	5.0	4.0
ACKSTT0402L-6.8uH/M	6.8 \pm 20%	63.60	70.00	4.5	4.2
ACKSTT0402-8.2uH/M	8.2 \pm 20%	71.00	78.10	4.5	4.1
ACKSTT0402-10uH/M	10 \pm 20%	100.00	115.00	4.0	2.7

Remark: ● All test data is reference to 25 $^{\circ}$ C ambient.

- Test Condition: 1MHz, 1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate Δ T of 40 $^{\circ}$ C
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 60V



● **SPECIFICATION TABLE:**

ACKSTT0403 Series

PART NUMBER	INDUCTANCE (μ H)	DCR (m Ω) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTT0403-1uH/M	1 \pm 20%	6.50	7.20	14.0	13.0
ACKSTT0403-1.2uH/M	1.2 \pm 20%	8.50	9.40	12.3	12.2
ACKSTT0403-1.5uH/M	1.5 \pm 20%	8.50	9.40	10.5	12.2
ACKSTT0403-2.2uH/M	2.2 \pm 20%	13.50	15.00	10.0	8.7
ACKSTT0403-3.3uH/M	3.3 \pm 20%	22.30	24.60	7.0	7.3
ACKSTT0403L-3.3uH/M	3.3 \pm 20%	18.00	20.70	7.0	7.7
ACKSTT0403-4.7uH/M	4.7 \pm 20%	35.20	38.80	6.0	5.5
ACKSTT0403L-4.7uH/M	4.7 \pm 20%	26.70	30.70	6.7	6.7
ACKSTT0403-5.6uH/M	5.6 \pm 20%	31.50	34.70	6.0	5.5
ACKSTT0403-6.8uH/M	6.8 \pm 20%	43.50	47.90	5.5	4.7
ACKSTT0403-8.2uH/M	8.2 \pm 20%	45.60	52.50	4.5	4.4
ACKSTT0403-10uH/M	10 \pm 20%	63.00	69.50	5.0	3.9
ACKSTT0403-12uH/M	12 \pm 20%	78.50	86.50	4.5	3.4

Remark: ● All test data is reference to 25 $^{\circ}$ C ambient.

- Test Condition: 1MHz, 1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate Δ T of 40 $^{\circ}$ C
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 60V



● **SPECIFICATION TABLE:**

ACKSTW0503 Series

PART NUMBER	INDUCTANCE (μ H)	DCR (m Ω) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTW0503S-2.2uH/M	2.2 \pm 20%	12.40	14.00	11.0	9.7
ACKSTW0503S-3.3uH/M	3.3 \pm 20%	21.20	23.30	10.0	8.1
ACKSTW0503S-4.7uH/M	4.7 \pm 20%	27.00	31.00	8.0	7.1
ACKSTW0503S-6.8uH/M	6.8 \pm 20%	40.90	47.00	7.0	6.3

● **SPECIFICATION TABLE:**

ACKSTT0503 Series

PART NUMBER	INDUCTANCE (μ H)	DCR (m Ω) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTT0503-1uH/M	1 \pm 20%	4.80	5.80	17.0	17.8
ACKSTT0503-1.5uH/M	1.5 \pm 20%	6.70	7.80	14.4	15.4
ACKSTT0503-2.2uH/M	2.2 \pm 20%	9.20	10.60	11.0	12.9
ACKSTT0503-3.3uH/M	3.3 \pm 20%	13.30	14.90	10.0	10.0
ACKSTT0503-4.7uH/M	4.7 \pm 20%	17.30	20.80	7.0	8.8
ACKSTT0503-6.8uH/M	6.8 \pm 20%	25.50	30.60	5.5	7.4
ACKSTT0503-10uH/M	10 \pm 20%	37.60	42.40	5.5	6.2

Remark: ● All test data is reference to 25 $^{\circ}$ C ambient.

- Test Condition: ACKSTW0503S: 1MHz, 0.1Vrms, ACKSTT0503: 1MHz, 1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate Δ T of 40 $^{\circ}$ C
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 60V



● **SPECIFICATION TABLE:**

AACKSTW0603 Series

PART NUMBER	INDUCTANCE (μ H)	DCR (m Ω) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTW0603S-0.47uH/M	0.47 \pm 20%	2.20	2.70	35.0	25.0
ACKSTW0603S-1uH/M	1 \pm 20%	4.20	4.90	23.0	18.1
ACKSTW0603S-1.2uH/M	1.2 \pm 20%	5.20	5.80	22.0	16.5
ACKSTW0603S-1.8uH/M	1.8 \pm 20%	7.00	8.00	16.0	14.0
ACKSTW0603S-2.2uH/M	2.2 \pm 20%	8.70	10.30	15.0	12.0
ACKSTW0603S-3.3uH/M	3.3 \pm 20%	13.10	15.40	11.0	10.5
ACKSTW0603S-4.7uH/M	4.7 \pm 20%	17.50	21.00	11.0	10.0
ACKSTW0603S-6.8uH/M	6.8 \pm 20%	25.10	28.00	8.4	8.5
ACKSTW0603S-8.2uH/M	8.2 \pm 20%	34.00	38.00	8.0	7.5
ACKSTW0603S-10uH/M	10 \pm 20%	38.00	44.00	7.2	7.0
ACKSTW0603S-12uH/M	12 \pm 20%	46.00	53.00	6.5	6.0
ACKSTW0603S-18uH/M	18 \pm 20%	55.80	64.20	5.0	5.4

Remark: ● All test data is reference to 25 $^{\circ}$ C ambient.

- Test Condition: 1MHz, 0.1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate Δ T of 40 $^{\circ}$ C
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C (Including self - temperature rise)
- Absolute maximum voltage: DC 60V



● **SPECIFICATION TABLE:**

ACKSTW0805S Series

PART NUMBER	INDUCTANCE (μ H)	DCR (m Ω) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTW0805S-3.3uH/M	3.3 \pm 20%	6.60	7.90	25.0	16.3
ACKSTW0805S-22uH/M	22 \pm 20%	39.30	47.10	6.2	6.6

● **SPECIFICATION TABLE:**

ACKSTW0806S Series

PART NUMBER	INDUCTANCE (μ H)	DCR (m Ω) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTW0806S-4.7uH/M	4.7 \pm 20%	8.60	9.90	25.0	14.5

● **SPECIFICATION TABLE:**

ACKSTW0807S Series

PART NUMBER	INDUCTANCE (μ H)	DCR (m Ω) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTW0807S-4.7uH/M	4.7 \pm 20%	7.50	9.00	18.0	16.0

Remark: ● All test data is reference to 25 $^{\circ}$ C ambient.

- Test Condition: 1MHz, 0.1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate Δ T of 40 $^{\circ}$ C
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 60V



● SPECIFICATION TABLE:

ACKSTF1004S Series

PART NUMBER	INDUCTANCE (μ H)	DCR (m Ω) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTF1004S-0.47uH/M	0.47 \pm 20%	0.95	1.15	46.0	36.0
ACKSTF1004S-0.68uH/M	0.68 \pm 20%	1.30	1.50	39.0	33.0
ACKSTF1004S-1uH/M	1 \pm 20%	2.10	2.40	36.0	25.0
ACKSTF1004S-1.5uH/M	1.5 \pm 20%	2.80	3.10	26.0	20.0
ACKSTF1004S-2.2uH/M	2.2 \pm 20%	4.50	5.00	22.0	15.0
ACKSTF1004S-3.3uH/M	3.3 \pm 20%	7.50	8.30	16.2	13.0
ACKSTF1004S-4.7uH/M	4.7 \pm 20%	9.50	10.50	15.2	12.0
ACKSTF1004S-5.6uH/M	5.6 \pm 20%	13.50	14.90	14.1	11.0
ACKSTF1004S-6.8uH/M	6.8 \pm 20%	15.00	16.50	12.0	10.0
ACKSTF1004S-8.2uH/M	8.2 \pm 20%	16.70	18.40	11.0	9.5
ACKSTF1004S-10uH/M	10 \pm 20%	17.80	19.60	10.0	9.0

Remark: ● All test data is reference to 25 $^{\circ}$ C ambient.

- Test Condition: 1MHz, 0.1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate Δ T of 40 $^{\circ}$ C
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 60V



● SPECIFICATION TABLE:

ACKSTW1006S Series

PART NUMBER	INDUCTANCE (μ H)	DCR (m Ω) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTW1006S-1uH/M	1 \pm 20%	1.60	1.90	50.0	30.0
ACKSTW1006S-1.2uH/M	1.2 \pm 20%	2.00	2.20	49.0	29.0
ACKSTW1006S-1.5uH/M	1.5 \pm 20%	2.00	2.20	42.0	29.0
ACKSTW1006S-2.2uH/M	2.2 \pm 20%	3.50	4.00	32.0	24.0
ACKSTW1006S-3.3uH/M	3.3 \pm 20%	4.90	5.60	26.0	19.0
ACKSTW1006S-4.7uH/M	4.7 \pm 20%	6.30	7.30	25.0	17.2
ACKSTW1006S-6.8uH/M	6.8 \pm 20%	7.80	9.00	18.0	13.0

Remark: ● All test data is reference to 25 $^{\circ}$ C ambient.

- Test Condition: 1MHz, 0.1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate Δ T of 40 $^{\circ}$ C
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 60V