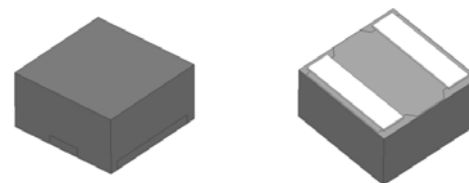


## SMD MOLDING POWER INDUCTOR

### ● 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℃).

### ● 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)

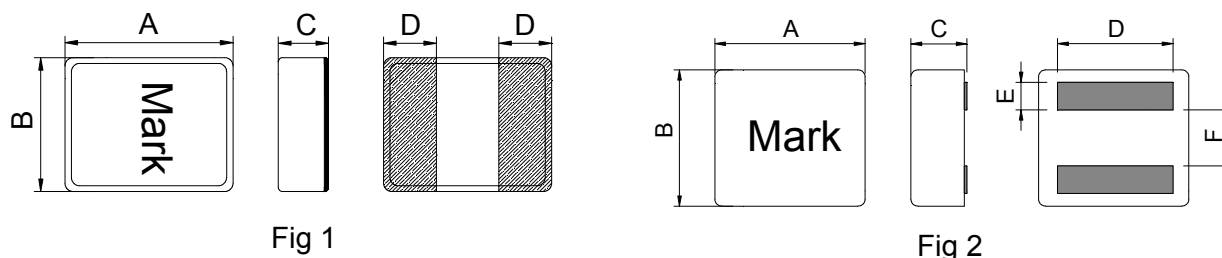


Fig 1

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
ACKSTTH0404	4.0±0.3	4.0±0.3	4.1 Max.	1.1±0.3	/	/	1
ACKSTT0503	5.28±0.3	5.48±0.3	3.1 Max.	1.7±0.3	/	/	1
ACKSTTH0505	5.28±0.3	5.48±0.3	5.1 Max.	1.7±0.3	/	/	1
ACKSTW0402S	4.0±0.3	4.0±0.3	2.1 Max.	3.25 Typ.	0.85±0.2	1.57±0.3	2
ACKSTW0403S	4.0±0.3	4.0±0.3	3.1 Max.	3.25 Typ.	0.85±0.2	1.57±0.3	2
ACKSTWH0404S	4.0±0.3	4.0±0.3	4.1 Max.	3.25 Typ.	0.85±0.2	1.57±0.3	2
ACKSTW0502S	5.48±0.3	5.28±0.3	2.1 Max.	4.2 Typ.	1.0±0.2	2.3±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

● EXTERNAL DIMENSIONS 外形尺寸 (Unit:mm)

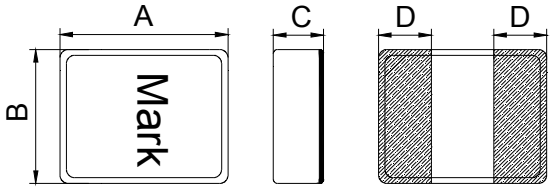


Fig 1

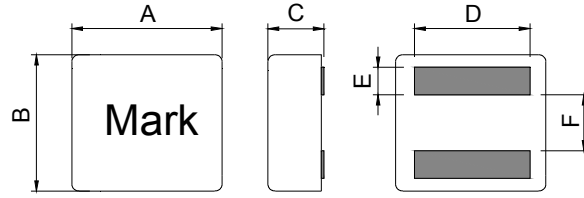
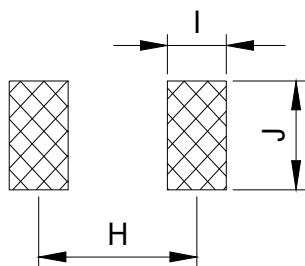


Fig 2

TYPE(型号)	A	B	C	D	E	F	Fig
ACKSTW0603S	6.6±0.3	6.4±0.3	3.1 Max.	5.0 Typ.	1.25±0.2	2.8±0.3	2
ACKSTWH0606S	6.6±0.3	6.4±0.3	6.1 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
ACKSTWH0808S	8.6±0.3	8.1±0.3	8.0 Max.	6.5 Typ.	1.6±0.2	3.56±0.3	2
ACKSTW1003S	11.3±0.5	10.0±0.5	3.0 Max.	8.0 Typ.	2.2±0.2	4.45±0.3	2
ACKSTW1004S	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
ACKSTW1007S	11.3±0.5	10.0±0.5	7.0 Max.	8.0 Typ.	2.2±0.2	4.45±0.3	2
ACKSTWH1010S	11.3±0.5	10.0±0.5	10.0 Max.	8.0 Typ.	2.2±0.2	4.45±0.3	2
ACKSTWH1507S	16.2±0.3	15.2±0.3	7.0 Max.	12.5 Typ.	3.0±0.3	7.6±0.3	2
ACKSTWH1508S	16.2±0.3	15.2±0.3	8.0 Max.	12.5 Typ.	3.0±0.3	7.6±0.3	2
ACKSTWH1510S	16.2±0.3	15.2±0.3	10.0 Max.	12.5 Typ.	3.0±0.3	7.6±0.3	2
ACKSTWH1513S	16.2±0.3	15.2±0.3	13.0 Max.	12.5 Typ.	3.0±0.3	7.6±0.3	2

● **RECOMMENDED PATTERNS**



ACKSTT Series

TYPE(型号)	H	I	J
ACKSTT0402	3.0	1.5	4.5
ACKSTT0403	3.0	1.5	4.5
ACKSTTH0404	3.0	1.5	4.5
ACKSTT0503	3.8	2.2	5.8
ACKSTTH0505	3.8	2.2	5.8

ACKSTW Series

TYPE(型号)	H	I	J
ACKSTW0402S	2.37	1.1	3.8
ACKSTW0403S	2.37	1.1	3.8
ACKSTWH0404S	2.37	1.1	3.8
ACKSTW0502S	3.3	1.3	4.7
ACKSTW0503S	3.3	1.3	4.7
ACKSTW0603S	4.05	1.55	5.5
ACKSTWH0606S	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
ACKSTWH0808S	5.2	2.0	7.0
ACKSTW1003S	6.65	2.6	9.0
ACKSTW1004S	6.65	2.6	9.0
ACKSTW1006S	6.65	2.6	9.0
ACKSTW1007S	6.65	2.6	9.0
ACKSTWH1010S	6.65	2.6	9.0
ACKSTWH1507S	10.6	3.5	13.2
ACKSTWH1508S	10.6	3.5	13.2
ACKSTWH1510S	10.6	3.5	13.2
ACKSTWH1513S	10.6	3.5	13.2

**● SPECIFICATION TABLE:**

## ACKSTT0402 Series

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTT0402-0.47 $\mu$ H/M	0.47 $\pm$ 20%	4.00	4.80	17.2	20.1
ACKSTT0402-0.6 $\mu$ H/M	0.6 $\pm$ 20%	4.90	5.70	12.0	18.5
ACKSTT0402-0.68 $\mu$ H/M	0.68 $\pm$ 20%	5.90	6.80	15.0	16.7
ACKSTT0402-1 $\mu$ H/M	1 $\pm$ 20%	7.50	8.50	11.0	12.4
ACKSTT0402-1.5 $\mu$ H/M	1.5 $\pm$ 20%	13.00	14.30	9.0	11.1
ACKSTT0402-2.2 $\mu$ H/M	2.2 $\pm$ 20%	18.10	20.00	7.5	9.0
ACKSTT0402-3.3 $\mu$ H/M	3.3 $\pm$ 20%	28.60	31.50	7.0	7.3
ACKSTT0402-4.7 $\mu$ H/M	4.7 $\pm$ 20%	43.00	47.30	6.0	5.6
ACKSTT0402-5.6 $\mu$ H/M	5.6 $\pm$ 20%	45.00	49.50	5.0	5.3
ACKSTT0402-6.8 $\mu$ H/M	6.8 $\pm$ 20%	74.40	85.00	5.0	4.0
ACKSTT0402L-6.8 $\mu$ H/M	6.8 $\pm$ 20%	63.60	70.00	4.5	4.2
ACKSTT0402-8.2 $\mu$ H/M	8.2 $\pm$ 20%	71.00	78.10	4.5	4.1
ACKSTT0402-10 $\mu$ H/M	10 $\pm$ 20%	100.00	115.00	4.0	2.7
ACKSTT0402-15 $\mu$ H/M	15 $\pm$ 20%	170.00	200.00	2.4	2.0

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

- Test Condition: 1MHz, 0.1Vrms
- Isat: Max.Value, DC current at which the inductance drops less than 30% from its value without current;  
Typ. Value, DC current at which the inductance drops 30% from its value without current.
- Irms: For Max. Value,  $\Delta T < 40^{\circ}$ C; for Typ. Value,  $\Delta T$  is approximate 40 $^{\circ}$ C.
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C (Including self - temperature rise)
- Absolute maximum voltage: DC 30V

## ACKSTW0402S Series

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTW0402S-0.22uH/M	0.22 $\pm$ 20%	3.00	3.30	19.4	19.0
ACKSTW0402S-0.33uH/M	0.33 $\pm$ 20%	3.00	3.30	21.0	23.0
ACKSTW0402S-0.4uH/M	0.4 $\pm$ 20%	4.00	4.60	14.0	20.1
ACKSTW0402S-0.47uH/M	0.47 $\pm$ 20%	4.80	5.80	15.0	17.0
ACKSTW0402S-0.6uH/M	0.6 $\pm$ 20%	6.80	7.50	13.0	14.1
ACKSTW0402S-1uH/M	1.0 $\pm$ 20%	10.00	11.00	9.7	10.5
ACKSTW0402S-1.2uH/M	1.2 $\pm$ 20%	11.20	13.50	9.0	9.7
ACKSTW0402S-1.5uH/M	1.5 $\pm$ 20%	20.30	23.30	8.0	8.7
ACKSTW0402S-2.2uH/M	2.2 $\pm$ 20%	22.50	25.80	8.0	8.0
ACKSTW0402S-3.3uH/M	3.3 $\pm$ 20%	34.20	38.30	6.0	5.5
ACKSTW0402S-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: Max.Value, DC current at which the inductance drops less than 30% from its value without current;  
Typ. Value, DC current at which the inductance drops 30% from its value without current.
- Irms: For Max. Value,  $\Delta T < 40^{\circ}$ C; for Typ. Value,  $\Delta T$  is approximate 40 $^{\circ}$ C.
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 30V

## ACKSTW0403S Series

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTW0403S-0.1uH/M	0.1 $\pm$ 20%	1.50	1.80	26.5	27.0
ACKSTW0403S-0.3uH/M	0.3 $\pm$ 20%	2.50	2.90	19.0	24.0
ACKSTW0403S-0.4uH/M	0.4 $\pm$ 20%	2.80	3.20	15.8	22.5
ACKSTW0403S-0.47uH/M	0.47 $\pm$ 20%	3.40	3.90	14.2	21.2
ACKSTW0403S-0.62uH/M	0.62 $\pm$ 20%	4.10	4.60	20.0	15.0
ACKSTW0403S-1uH/M	1 $\pm$ 20%	8.00	9.00	12.0	11.0
ACKSTW0403S-1.5uH/M	1.5 $\pm$ 20%	14.00	15.40	10.0	8.6
ACKSTW0403S-2.2uH/M	2.2 $\pm$ 20%	20.10	22.10	8.0	7.8
ACKSTW0403S-3.3uH/M	3.3 $\pm$ 20%	25.00	27.50	7.0	6.6
ACKSTW0403S-4.7uH/M	4.7 $\pm$ 20%	36.00	39.60	6.0	5.3

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

- Test Condition: 1MHz, 0.1Vrms
- Isat: Max.Value, DC current at which the inductance drops less than 30% from its value without current;  
Typ. Value, DC current at which the inductance drops 30% from its value without current.
- Irms: For Max. Value,  $\Delta T < 40^{\circ}$ C; for Typ. Value,  $\Delta T$  is approximate 40 $^{\circ}$ C.
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 30V

**ACKSTTH0403 Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @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

**ACKSTWH0404S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTWH0404S- 0.15uH/M	0.15 $\pm$ 20%	1.50	1.80	21.0	30.2
ACKSTWH0404S-0.3uH/M	0.3 $\pm$ 20%	2.20	2.60	15.3	24.6
ACKSTWH0404S- 0.47uH/M	0.47 $\pm$ 20%	2.80	3.20	14.6	20.8
ACKSTWH0404S-1uH/M	1 $\pm$ 20%	4.80	5.60	9.3	14.8

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

● Test Condition: 1MHz, 0.1Vrms

● Isat: Max.Value, DC current at which the inductance drops less than 30% from its value without current;  
Typ. Value, DC current at which the inductance drops 30% from its value without current.

● Irms: For Max. Value,  $\Delta T < 40^{\circ}$ C; for Typ. Value,  $\Delta T$  is approximate 40 $^{\circ}$ C.

● Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)

● Absolute maximum voltage: DC 30V

## ACKSTT0404 Series

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTTH0404-1.5uH/M	1.5 $\pm$ 20%	6.80	7.90	7.9	12.5
ACKSTTH0404-2.2uH/M	2.2 $\pm$ 20%	10.10	11.50	7.0	11.0
ACKSTTH0404-3.3uH/M	3.3 $\pm$ 20%	15.00	16.60	5.8	8.7
ACKSTTH0404-4.7uH/M	4.7 $\pm$ 20%	22.20	24.50	4.8	7.1
ACKSTTH0404-6.8uH/M	6.8 $\pm$ 20%	31.50	34.70	4.3	5.6
ACKSTTH0404-8.2uH/M	8.2 $\pm$ 20%	37.40	41.20	4.0	5.4
ACKSTTH0404-10uH/M	10 $\pm$ 20%	56.00	67.20	4.0	4.7
ACKSTTH0404L-10uH/M	10 $\pm$ 20%	45.80	50.50	5.5	5.0
ACKSTTH0404-15uH/M	15 $\pm$ 20%	74.50	82.20	4.0	3.6
ACKSTTH0404-22uH/M	22 $\pm$ 20%	104.00	114.70	1.9	3.3

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

- Test Condition: 1MHz, 0.1Vrms
- Isat: Max.Value, DC current at which the inductance drops less than 30% from its value without current;  
Typ. Value, DC current at which the inductance drops 30% from its value without current.
- Irms: For Max. Value,  $\Delta T < 40^{\circ}$ C; for Typ. Value,  $\Delta T$  is approximate 40 $^{\circ}$ C.
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 30V



**ACKSTW0503S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @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

**ACKSTT0503 Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTT0503-0.8uH/M	0.8 $\pm$ 20%	3.80	4.60	18.6	21.1
ACKSTT0503-0.9uH/M	0.9 $\pm$ 20%	4.00	4.80	14.5	19.8
ACKSTT0503-1uH/M	1 $\pm$ 20%	4.80	5.80	17.0	17.8
ACKSTT0503-1.2uH/M	1.2 $\pm$ 20%	4.80	5.80	13.0	16.9
ACKSTT0503-1.5uH/M	1.5 $\pm$ 20%	6.80	7.90	16.0	15.4
ACKSTT0503-1.8uH/M	1.8 $\pm$ 20%	6.70	7.80	10.6	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
ACKSTT0503-5.6uH/M	5.6 $\pm$ 20%	23.60	26.50	6.0	8.0
ACKSTT0503-6.8uH/M	6.8 $\pm$ 20%	25.50	30.60	5.5	7.4
ACKSTT0503-8.2uH/M	8.2 $\pm$ 20%	32.90	37.00	5.0	6.5
ACKSTT0503-10uH/M	10 $\pm$ 20%	37.60	42.40	5.5	6.2
ACKSTT0503-12uH/M	12 $\pm$ 20%	50.00	56.50	4.0	5.4
ACKSTT0503-15uH/M	15 $\pm$ 20%	67.00	75.10	3.6	4.5
ACKSTT0503-18uH/M	18 $\pm$ 20%	78.00	93.60	3.3	4.1
ACKSTT0503-22uH/M	22 $\pm$ 20%	106.00	118.80	3.0	3.6

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

- Test Condition: 1MHz, 0.1Vrms
- Isat: Max.Value, DC current at which the inductance drops less than 30% from its value without current;  
Typ. Value, DC current at which the inductance drops 30% from its value without current.
- Irms: For Max. Value,  $\Delta T < 40^{\circ}$ C; for Typ. Value,  $\Delta T$  is approximate 40 $^{\circ}$ C.
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 30V

## ACKSTTH0505 Series

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTTH0505-1.8uH/M	1.8 $\pm$ 20%	6.50	7.80	11.4	15.3
ACKSTTH0505-2.2uH/M	2.2 $\pm$ 20%	6.80	8.20	10.9	13.8
ACKSTTH0505-3.3uH/M	3.3 $\pm$ 20%	10.00	11.50	9.0	11.3
ACKSTTH0505-4.7uH/M	4.7 $\pm$ 20%	11.90	13.10	9.0	10.5
ACKSTTH0505-5.6uH/M	5.6 $\pm$ 20%	16.60	18.30	7.3	8.1
ACKSTTH0505-6.8uH/M	6.8 $\pm$ 20%	20.20	22.30	7.0	7.6
ACKSTTH0505-8.2uH/M	8.2 $\pm$ 20%	22.60	25.00	6.8	7.2
ACKSTTH0505-10uH/M	10 $\pm$ 20%	30.00	33.00	5.5	6.2
ACKSTTH0505-12uH/M	12 $\pm$ 20%	34.60	38.10	5.4	5.3
ACKSTTH0505-15uH/M	15 $\pm$ 20%	45.30	50.00	6.0	4.7
ACKSTTH0505-18uH/M	18 $\pm$ 20%	56.50	62.50	3.7	4.5
ACKSTTH0505-22uH/M	22 $\pm$ 20%	72.10	79.50	3.8	4.0
ACKSTTH0505-33uH/M	33 $\pm$ 20%	107.00	118.00	2.5	3.2

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

● Test Condition: 1MHz, 0.1Vrms

● Isat: Max.Value, DC current at which the inductance drops less than 30% from its value without current;  
 Typ. Value, DC current at which the inductance drops 30% from its value without current.

● Irms: For Max. Value,  $\Delta T < 40^{\circ}$ C; for Typ. Value,  $\Delta T$  is approximate 40 $^{\circ}$ C.

● Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C (Including self - temperature rise)

● Absolute maximum voltage: DC 30V

## ACKSTW0603S Series

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTW0603S-0.33uH/M	0.33 $\pm$ 20%	1.50	1.80	34.0	32.0
ACKSTW0603S-0.47uH/M	0.47 $\pm$ 20%	2.20	2.70	35.0	25.0
ACKSTW0603S-0.56uH/M	0.56 $\pm$ 20%	2.50	2.90	29.0	24.0
ACKSTW0603S-0.68uH/M	0.68 $\pm$ 20%	2.80	3.40	24.0	23.0
ACKSTW0603S-0.82uH/M	0.82 $\pm$ 20%	3.40	4.00	22.0	21.0
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-1.5uH/M	1.5 $\pm$ 20%	6.20	7.00	18.0	15.2
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-5.6uH/M	5.6 $\pm$ 20%	20.50	24.10	9.4	8.8
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-15uH/M	15 $\pm$ 20%	62.10	72.00	6.0	5.2
ACKSTW0603S-18uH/M	18 $\pm$ 20%	67.00	77.00	5.0	4.8

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

- Test Condition: 1MHz, 0.1Vrms
- Isat: Max.Value, DC current at which the inductance drops less than 30% from its value without current;  
Typ. Value, DC current at which the inductance drops 30% from its value without current.
- Irms: For Max. Value,  $\Delta T < 40^{\circ}C$ ; for Typ. Value,  $\Delta T$  is approximate 40 $^{\circ}C$ .
- Operat between temperature range -40 $^{\circ}C$  to +125 $^{\circ}C$ (Including self - temperature rise)
- Absolute maximum voltage: DC 30V

## ACKSTWH0606S Series

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTWH0606S-0.22uH/M	0.22 $\pm$ 20%	1.10	1.30	65.0	29.0
ACKSTWH0606S-0.68uH/M	0.68 $\pm$ 20%	2.00	2.30	26.5	22.7
ACKSTWH0606S-1uH/M	1 $\pm$ 20%	2.50	2.90	23.0	22.0
ACKSTWH0606S-1.2uH/M	1.2 $\pm$ 20%	2.90	3.40	21.0	21.5
ACKSTWH0606S-1.5uH/M	1.5 $\pm$ 20%	3.30	3.80	20.1	20.2
ACKSTWH0606S-1.8uH/M	1.8 $\pm$ 20%	3.80	4.30	17.5	19.7
ACKSTWH0606S-2.2uH/M	2.2 $\pm$ 20%	4.30	4.80	16.0	17.2
ACKSTWH0606S-3.3uH/M	3.3 $\pm$ 20%	5.90	6.50	13.4	16.6
ACKSTWH0606S-4.7uH/M	4.7 $\pm$ 20%	9.10	10.10	10.2	13.5
ACKSTWH0606S-5.6uH/M	5.6 $\pm$ 20%	10.60	11.70	9.6	12.6
ACKSTWH0606S-6.8uH/M	6.8 $\pm$ 20%	12.70	14.00	8.9	11.5
ACKSTWH0606S-8.2uH/M	8.2 $\pm$ 20%	15.20	16.80	8.1	10.1
ACKSTWH0606S-10uH/M	10 $\pm$ 20%	18.50	20.40	7.3	9.1
ACKSTWH0606S-12uH/M	12 $\pm$ 20%	22.00	24.20	6.7	8.3
ACKSTWH0606S-15uH/M	15 $\pm$ 20%	28.20	31.10	5.8	7.4
ACKSTWH0606S-18uH/M	18 $\pm$ 20%	33.90	37.30	6.3	6.4
ACKSTWH0606S-22uH/M	22 $\pm$ 20%	42.60	46.90	5.1	5.8
ACKSTWH0606S-33uH/M	33 $\pm$ 20%	63.10	69.50	4.0	4.9
ACKSTWH0606S-47uH/M	47 $\pm$ 20%	97.00	107.00	3.2	3.7

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

- Test Condition: 1MHz, 0.1Vrms
- Isat: Max.Value, DC current at which the inductance drops less than 30% from its value without current;  
Typ. Value, DC current at which the inductance drops 30% from its value without current.
- Irms: For Max. Value,  $\Delta T < 40^{\circ}C$ ; for Typ. Value,  $\Delta T$  is approximate 40 $^{\circ}C$ .
- Operat between temperature range -40 $^{\circ}C$  to +125 $^{\circ}C$ (Including self - temperature rise)
- Absolute maximum voltage: DC 30V

**ACKSTW0805S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @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	7.0	6.6

**ACKSTW0806S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @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
ACKSTW0806S-10uH/M	10 $\pm$ 20%	16.30	18.00	14.0	10.0

**ACKSTW0807S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @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: Max.Value, DC current at which the inductance drops less than 30% from its value without current;  
Typ. Value, DC current at which the inductance drops 30% from its value without current.
- Irms: For Max. Value,  $\Delta T < 40^{\circ}$ C; for Typ. Value,  $\Delta T$  is approximate 40 $^{\circ}$ C.
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 60V

**ACKSTWH0808S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTWH0808S-1uH/M	1 $\pm$ 20%	2.00	2.30	34.0	35.0
ACKSTWH0808S-2.2uH/M	2.2 $\pm$ 20%	3.80	4.40	25.2	22.5
ACKSTWH0808S-4.7uH/M	4.7 $\pm$ 20%	7.50	8.70	18.0	16.0
ACKSTWH0808S-6.8uH/M	6.8 $\pm$ 20%	11.40	13.00	14.2	12.3
ACKSTWH0808S-10uH/M	10 $\pm$ 20%	16.30	18.70	12.0	10.0
ACKSTWH0808S-22uH/M	22 $\pm$ 20%	30.40	35.00	7.0	8.0
ACKSTWH0808S-47uH/M	47 $\pm$ 20%	71.00	81.70	4.7	4.8

**ACKSTW1003S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTW1003S-0.16uH/M	0.16 $\pm$ 20%	0.70	0.80	88.0	50.0
ACKSTW1003S-0.33uH/M	0.33 $\pm$ 20%	1.22	1.40	68.0	40.0
ACKSTW1003S-0.56uH/M	0.56 $\pm$ 20%	2.50	2.75	44.0	32.0
ACKSTW1003S-1uH/M	1 $\pm$ 20%	4.00	4.50	35.0	25.0

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

- Test Condition: 1MHz, 0.1Vrms
- Isat: Max.Value, DC current at which the inductance drops less than 30% from its value without current;  
Typ. Value, DC current at which the inductance drops 30% from its value without current.
- Irms: For Max. Value,  $\Delta T < 40^{\circ}$ C; for Typ. Value,  $\Delta T$  is approximate 40 $^{\circ}$ C.
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 60V

**ACKSTW1004S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTW1004S-0.47uH/M	0.47 $\pm$ 20%	0.95	1.15	46.0	36.0
ACKSTW1004S-0.68uH/M	0.68 $\pm$ 20%	1.30	1.50	39.0	33.0
ACKSTW1004S-1uH/M	1 $\pm$ 20%	2.10	2.40	36.0	25.0
ACKSTW1004S-1.5uH/M	1.5 $\pm$ 20%	2.80	3.10	26.0	20.0
ACKSTW1004S-2.2uH/M	2.2 $\pm$ 20%	4.50	5.00	22.0	15.0
ACKSTW1004S-3.3uH/M	3.3 $\pm$ 20%	7.50	8.30	16.2	13.0
ACKSTW1004S-4.7uH/M	4.7 $\pm$ 20%	9.50	10.50	15.2	12.0
ACKSTW1004S-5.6uH/M	5.6 $\pm$ 20%	13.50	14.90	14.1	11.0
ACKSTW1004S-6.8uH/M	6.8 $\pm$ 20%	15.00	16.50	12.0	10.0
ACKSTW1004S-8.2uH/M	8.2 $\pm$ 20%	16.70	18.40	11.0	9.5
ACKSTW1004S-10uH/M	10 $\pm$ 20%	17.80	19.60	10.0	9.0

**ACKSTW1006S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTW1006S-1.0uH/M	1.0 $\pm$ 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: Max.Value, DC current at which the inductance drops less than 30% from its value without current;  
Typ. Value, DC current at which the inductance drops 30% from its value without current.

● Irms: For Max. Value,  $\Delta T < 40^{\circ}$ C; for Typ. Value,  $\Delta T$  is approximate 40 $^{\circ}$ C.

● Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)

● Absolute maximum voltage: DC 60V

**ACKSTW1007S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTW1007S-2.2uH/M	2.2 $\pm$ 20%	3.20	3.70	36.0	26.0
ACKSTW1007S-3.3uH/M	3.3 $\pm$ 20%	4.00	4.50	33.0	25.0
ACKSTW1007S-4.7uH/M	4.7 $\pm$ 20%	5.40	6.20	23.0	19.0

**ACKSTWH1010S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTWH1010S-1.5uH/M	1.5 $\pm$ 20%	1.60	1.76	36.6	40.5
ACKSTWH1010S-2.2uH/M	2.2 $\pm$ 20%	2.45	2.70	38.0	33.0
ACKSTWH1010S-3.3uH/M	3.3 $\pm$ 20%	3.10	3.40	33.0	28.0
ACKSTWH1010S-4.7uH/M	4.7 $\pm$ 20%	4.10	4.50	27.0	26.0
ACKSTWH1010S-5.6uH/M	5.6 $\pm$ 20%	5.40	6.00	24.0	23.0
ACKSTWH1010S-6.8uH/M	6.8 $\pm$ 20%	7.10	8.00	23.0	20.0
ACKSTWH1010S-8.2uH/M	8.2 $\pm$ 20%	11.70	12.90	18.3	17.1
ACKSTWH1010S-10uH/M	10 $\pm$ 20%	13.40	14.70	17.5	15.5
ACKSTWH1010S-15uH/M	15 $\pm$ 20%	16.90	18.60	15.5	13.8

**ACKSTWH1507S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTWH1507S-5.3uH/M	5.3 $\pm$ 20%	4.20	4.80	34.0	27.0
ACKSTWH1507S-8.2uH/M	8.2 $\pm$ 20%	6.70	7.40	26.5	20.0
ACKSTWH1507S-10uH/M	10 $\pm$ 20%	8.00	9.00	23.5	16.0

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

- Test Condition: 1MHz, 0.1Vrms
- Isat: Max.Value, DC current at which the inductance drops less than 30% from its value without current;  
Typ. Value, DC current at which the inductance drops 30% from its value without current.
- Irms: For Max. Value,  $\Delta T < 40^{\circ}$ C; for Typ. Value,  $\Delta T$  is approximate 40 $^{\circ}$ C.
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 60V



**ACKSTWH1508S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTWH1508S-1.8uH/M	1.8 $\pm$ 20%	1.61	1.93	57.0	43.8
ACKSTWH1508S-2.2uH/M	2.2 $\pm$ 20%	1.91	2.29	51.0	40.0
ACKSTWH1508S-3uH/M	3 $\pm$ 20%	2.28	2.74	45.9	37.6
ACKSTWH1508S-4.5uH/M	4.5 $\pm$ 20%	3.44	4.13	37.2	28.2
ACKSTWH1508S-5.3uH/M	5.3 $\pm$ 20%	3.80	4.40	41.0	28.0
ACKSTWH1508S-6.1uH/M	6.1 $\pm$ 20%	5.40	6.50	40.0	23.1

**ACKSTWH1510S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTWH1510S-4.7uH/M	4.7 $\pm$ 20%	2.80	3.20	50.0	32.0
ACKSTWH1510S-6.8uH/M	6.8 $\pm$ 20%	4.17	4.60	36.0	26.0
ACKSTWH1510S-8.2uH/M	8.2 $\pm$ 20%	5.50	6.60	31.0	25.0
ACKSTWH1510S-10uH/M	10 $\pm$ 20%	6.50	7.80	37.0	23.3
ACKSTWH1510S-15uH/M	15 $\pm$ 20%	9.17	12.40	30.0	18.0
ACKSTWH1510S-22uH/M	22 $\pm$ 20%	14.50	16.00	19.0	14.0
ACKSTWH1510S-33uH/M	33 $\pm$ 20%	18.70	20.00	16.7	12.0

**ACKSTWH1513S Series**

PART NUMBER	INDUCTANCE ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C		Saturation Current DC Amps. Isat (A)	Heat Rating Current DC Amps. Irms (A)
		Typical	Maximum	Typical	Typical
ACKSTWH1513S-15uH/M	15 $\pm$ 20%	6.80	7.50	25.5	22.0

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

- Test Condition: 1MHz, 0.1Vrms
- Isat: Max.Value, DC current at which the inductance drops less than 30% from its value without current;  
Typ. Value, DC current at which the inductance drops 30% from its value without current.
- Irms: For Max. Value,  $\Delta T < 40^{\circ}$ C; for Typ. Value,  $\Delta T$  is approximate 40 $^{\circ}$ C.
- Operat between temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C (Including self - temperature rise)
- Absolute maximum voltage: DC 60V