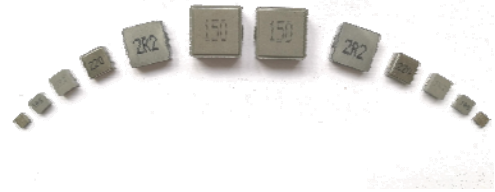


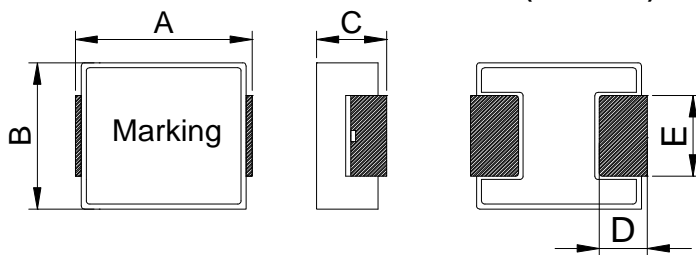
## SMD MOLDING POWER INDUCTOR ACKST Series



### ● FEATURES 特性

- 1.磁屏蔽结构,闭合磁路,抗电磁干扰强,超低蜂鸣声,可高密度安装.
- 2.小体积,大电流,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.
- 3.低损耗合金粉末压铸,低电阻.结构牢固,产品精准度高.

### ● SHAPES AND DIMENSIONS 外形尺寸 (Unit:mm)



TYPE(型号)	A	B	C	D	E
ACKST0402	4.4±0.4	4.2±0.2	1.8±0.2	0.8±0.2	2.0±0.3
ACKST0503	5.6±0.4	5.2±0.2	2.8±0.2	1.3±0.3	2.3±0.3
ACKST0603	7.0±0.3	6.6±0.2	2.8±0.2	1.6±0.3	3.0±0.3
ACKST0605	7.0±0.3	6.6±0.2	4.8±0.2	1.6±0.3	3.0±0.3
ACKST1004	11.0±0.5	10.0±0.3	3.8±0.2	2.5±0.5	3.0±0.5
ACKST1005	11.0±0.5	10.0±0.3	5.2±0.2	2.2±0.5	4.5±0.3
ACKST1205	13.5±0.5	12.6±0.3	4.8±0.2	2.0±0.5	5.0±0.5
ACKST1206	13.5±0.5	12.6±0.3	6.2±0.2	2.0±0.5	5.0±0.5
ACKST1707	17.2±0.5	17.0±0.3	6.8±0.2	2.5±0.5	12.0±0.3

● **PART NUMBERING SYSTEM 品名系统**

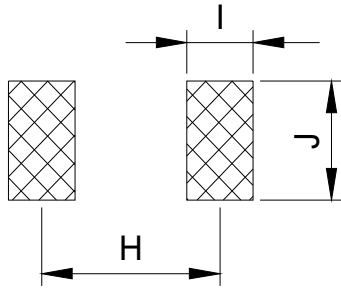
ACKST 0603 - 1uH - M

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%)

● **Recommended patterns**



TYPE(型号)	H	I	J
ACKST0402	3.7	1.26	2.5
ACKST0503	4.1	1.9	2.8
ACKST0603	6.05	2.35	3.5
ACKST0605	6.05	2.35	3.5
ACKST1004	9.5	3.5	4.0
ACKST1005	9.5	3.2	5.0
ACKST1205	10.5	4	5.5
ACKST1206	10.5	4	5.5
ACKST1707	13.8	3.4	12.6

● **SPECIFICATION TABLE:**

ACKST0402 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
ACKST0402-0.33uH/M	0.33 $\pm$ 20%	8.0	11.0	12.0	10.0
ACKST0402-0.47uH/M	0.47 $\pm$ 20%	12.0	14.0	10.0	9.0
ACKST0402-0.56uH/M	0.56 $\pm$ 20%	12.0	16.0	9.4	7.8
ACKST0402-0.68uH/M	0.68 $\pm$ 20%	12.6	18.0	9.2	7.8
ACKST0402-1uH/M	1 $\pm$ 20%	24.0	27.0	7.5	6.0
ACKST0402-1.2uH/M	1.2 $\pm$ 20%	24.0	28.0	7.3	5.8
ACKST0402-1.5uH/M	1.5 $\pm$ 20%	38.0	46.0	7.0	5.2
ACKST0402-2.2uH/M	2.2 $\pm$ 20%	48.0	58.0	6.0	4.2
ACKST0402-3.3uH/M	3.3 $\pm$ 20%	70.0	87.0	4.0	3.4
ACKST0402-4.7uH/M	4.7 $\pm$ 20%	90.0	105.0	3.0	3.2
ACKST0402-6.8uH/M	6.8 $\pm$ 20%	137.0	175.0	2.5	2.4
ACKST0402-10uH/M	10 $\pm$ 20%	235.0	282.0	2.3	1.8

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

- Test Condition: 100kHz, 1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate  $\Delta$ T of 40 $^{\circ}$ C
- Operat between temperature range -55 $^{\circ}$ C to +150 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 75V

**● SPECIFICATION TABLE:**

ACKST0503 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
ACKST0503-0.2uH/M	0.2 $\pm$ 20%	3.6	4.2	28.0	16.0
ACKST0503-0.33uH/M	0.33 $\pm$ 20%	4.8	5.5	18.0	14.0
ACKST0503-0.47uH/M	0.47 $\pm$ 20%	6.5	7.5	15.0	11.0
ACKST0503-0.68uH/M	0.68 $\pm$ 20%	10.0	12.0	12.0	9.0
ACKST0503-1uH/M	1 $\pm$ 20%	11.0	14.0	10.0	8.5
ACKST0503-1.2uH/M	1.2 $\pm$ 20%	13.6	15.0	9.5	8.0
ACKST0503-1.5uH/M	1.5 $\pm$ 20%	17.0	25.0	9.0	7.2
ACKST0503-2.2uH/M	2.2 $\pm$ 20%	23.0	29.0	8.0	6.4
ACKST0503-3.3uH/M	3.3 $\pm$ 20%	30.0	38.0	6.0	5.5
ACKST0503-4.7uH/M	4.7 $\pm$ 20%	50.0	60.0	5.0	4.0
ACKST0503-6.8uH/M	6.8 $\pm$ 20%	69.0	86.0	4.5	3.5
ACKST0503-10uH/M	10 $\pm$ 20%	112.0	125.0	3.5	2.8
ACKST0503-15uH/M	15 $\pm$ 20%	153.0	170.0	2.2	2.0

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

- Test Condition: 100kHz, 1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate  $\Delta$ T of 40 $^{\circ}$ C
- Operat between temperature range -55 $^{\circ}$ C to +150 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 75V

**● SPECIFICATION TABLE:**

ACKST0603 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
ACKST0603-0.22uH/M	0.22 $\pm$ 20%	2.5	3.0	34.0	23.0
ACKST0603-0.33uH/M	0.33 $\pm$ 20%	3.0	3.5	25.0	21.0
ACKST0603-0.47uH/M	0.47 $\pm$ 20%	3.5	4.1	20.0	18.0
ACKST0603-0.56uH/M	0.56 $\pm$ 20%	3.8	4.5	18.0	16.5
ACKST0603-0.68uH/M	0.68 $\pm$ 20%	5.0	5.8	17.0	16.0
ACKST0603-0.82uH/M	0.82 $\pm$ 20%	5.7	6.7	16.0	14.0
ACKST0603-1uH/M	1 $\pm$ 20%	7.0	7.5	18.0	12.0
ACKST0603-1.5uH/M	1.5 $\pm$ 20%	10.6	12.1	13.0	11.0
ACKST0603L-2.2uH/M	2.2 $\pm$ 20%	13.0	15.0	10.0	9.5
ACKST0603-3.3uH/M	3.3 $\pm$ 20%	19.0	22.0	9.5	7.5
ACKST0603-4.7uH/M	4.7 $\pm$ 20%	28.0	33.0	9.0	6.0
ACKST0603-5.6uH/M	5.6 $\pm$ 20%	38.0	44.0	6.5	5.7
ACKST0603L-6.8uH/M	6.8 $\pm$ 20%	41.0	46.8	6.0	5.5
ACKST0603-8.2uH/M	8.2 $\pm$ 20%	58.0	65.0	6.0	4.3
ACKST0603-10uH/M	10 $\pm$ 20%	60.0	68.0	5.5	4.0
ACKST0603L-15uH/M	15 $\pm$ 20%	93.0	100.0	4.0	3.2
ACKST0603-22uH/M	22 $\pm$ 20%	145.0	170.0	3.1	2.5
ACKST0603-33uH/M	33 $\pm$ 20%	250.0	270.0	2.5	2.0

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

- Test Condition: 100kHz, 1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate  $\Delta$ T of 40 $^{\circ}$ C
- Operat between temperature range -55 $^{\circ}$ C to +150 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 75V

**● SPECIFICATION TABLE:**

ACKST0605 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
ACKST0605-0.47uH/M	0.47 $\pm$ 20%	3.0	3.6	21.0	18.1
ACKST0605-0.68uH/M	0.68 $\pm$ 20%	3.8	4.5	18.0	16.5
ACKST0605-1uH/M	1 $\pm$ 20%	5.6	6.5	16.0	13.0
ACKST0605-1.5uH/M	1.5 $\pm$ 20%	7.1	8.5	13.0	10.5
ACKST0605-2.2uH/M	2.2 $\pm$ 20%	11.0	12.5	11.0	9.0
ACKST0605-3.3uH/M	3.3 $\pm$ 20%	19.0	22.0	10.0	7.5
ACKST0605-4.7uH/M	4.7 $\pm$ 20%	25.0	29.0	8.0	6.0
ACKST0605-6.8uH/M	6.8 $\pm$ 20%	35.0	41.0	7.0	5.8
ACKST0605-8.2uH/M	8.2 $\pm$ 20%	41.0	48.0	5.5	5.5
ACKST0605-10uH/M	10 $\pm$ 20%	45.0	53.0	6.0	4.8
ACKST0605-15uH/M	15 $\pm$ 20%	72.0	85.0	4.0	3.5
ACKST0605-22uH/M	22 $\pm$ 20%	115.0	130.0	3.5	2.8
ACKST0605-33uH/M	33 $\pm$ 20%	158.0	180.0	3.0	2.4

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

- Test Condition: 100kHz, 1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate  $\Delta$ T of 40 $^{\circ}$ C
- Operat between temperature range -55 $^{\circ}$ C to +150 $^{\circ}$ C (Including self - temperature rise)
- Absolute maximum voltage: DC 75V

**● SPECIFICATION TABLE:**

ACKST1004 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
ACKST1004-0.22uH/M-B	0.22 $\pm$ 20%	0.9	1.0	60.0	35.0
ACKST1004-0.3uH/M	0.3 $\pm$ 20%	0.94	1.1	45.0	33.0
ACKST1004-0.36uH/M	0.36 $\pm$ 20%	1.02	1.2	45.0	34.0
ACKST1004-0.47uH/M	0.47 $\pm$ 20%	1.45	1.7	40.0	28.0
ACKST1004-0.56uH/M	0.56 $\pm$ 20%	1.53	1.8	33.0	27.0
ACKST1004-0.68uH/M	0.68 $\pm$ 20%	1.9	2.2	30.0	24.5
ACKST1004-0.8uH/M	0.8 $\pm$ 20%	2.3	2.7	29.0	24.0
ACKST1004-1uH/M-B	1 $\pm$ 20%	2.3	3.0	28.0	23.7
ACKST1004-1.2uH/M	1.2 $\pm$ 20%	3.2	3.8	25.0	19.0
ACKST1004-1.5uH/M	1.5 $\pm$ 20%	3.6	4.2	24.0	18.0
ACKST1004-2.2uH/M	2.2 $\pm$ 20%	6.0	7.0	16.5	14.0
ACKST1004-3.3uH/M	3.3 $\pm$ 20%	10.0	11.8	16.0	11.0
ACKST1004-4.7uH/M	4.7 $\pm$ 20%	14.0	16.5	13.0	9.3
ACKST1004-6.8uH/M	6.8 $\pm$ 20%	21.0	25.0	12.0	8.0
ACKST1004-10uH/M	10 $\pm$ 20%	25.5	30.0	8.5	7.5
ACKST1004-15uH/M	15 $\pm$ 20%	38.3	45.0	7.0	6.3
ACKST1004-22uH/M	22 $\pm$ 20%	56.1	66.0	5.5	5.0
ACKST1004-33uH/M	33 $\pm$ 20%	85.0	92.0	4.8	4.0
ACKST1004-47uH/M	47 $\pm$ 20%	123.0	145.0	4.0	3.1
ACKST1004-68uH/M	68 $\pm$ 20%	166.0	195.0	3.0	2.6
ACKST1004-82uH/M	82 $\pm$ 20%	242.0	285.0	2.8	2.3
ACKST1004-100uH/M	100 $\pm$ 20%	289.0	340.0	2.3	2.1

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

- Test Condition: 100kHz, 1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate  $\Delta$ T of 40 $^{\circ}$ C
- Operat between temperature range -55 $^{\circ}$ C to +150 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 75V

**● SPECIFICATION TABLE:**

ACKST1005 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
ACKST1005-2.5uH/M	2.5 $\pm$ 20%	5.2	6.8	22.0	16.0
ACKST1005-3.3uH/M	3.3 $\pm$ 20%	6.0	7.4	20.0	15.0
ACKST1005-4.7uH/M	4.7 $\pm$ 20%	8.3	10.0	18.0	14.5
ACKST1005-6.8uH/M	6.8 $\pm$ 20%	12.0	15.0	14.0	12.0
ACKST1005-10uH/M	10 $\pm$ 20%	21.0	26.0	13.0	8.4
ACKST1005-15uH/M	15 $\pm$ 20%	26.0	31.0	9.2	7.6
ACKST1005-22uH/M	22 $\pm$ 20%	45.0	53.0	7.5	5.8
ACKST1005-33uH/M	33 $\pm$ 20%	66.0	78.0	6.0	4.8

**● SPECIFICATION TABLE:**

ACKST1205 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
ACKST1205-3.3uH/M	3.3 $\pm$ 20%	6.0	7.0	22.0	14.0
ACKST1205-4.7uH/M	4.7 $\pm$ 20%	7.7	9.0	20.0	12.5
ACKST1205-5.6uH/M	5.6 $\pm$ 20%	11.0	12.7	18.0	11.0
ACKST1205-6.8uH/M	6.8 $\pm$ 20%	15.3	18.0	16.0	9.5
ACKST1205-8.2uH/M	8.2 $\pm$ 20%	17.0	20.0	13.0	9.0
ACKST1205-10uH/M	10 $\pm$ 20%	18.7	22.0	12.0	8.2
ACKST1205-15uH/M	15 $\pm$ 20%	27.0	32.0	10.0	7.0
ACKST1205-22uH/M	22 $\pm$ 20%	42.0	50.0	7.0	5.5

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

- Test Condition: 100kHz, 1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate  $\Delta$ T of 40 $^{\circ}$ C
- Operat between temperature range -55 $^{\circ}$ C to +150 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 75V



**● SPECIFICATION TABLE:**

ACKST1206 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
ACKST1206-2.2uH/M	2.2 $\pm$ 20%	3.8	4.6	23.0	22.0
ACKST1206-3.3uH/M	3.3 $\pm$ 20%	5.5	6.5	21.0	18.0
ACKST1206-4.7uH/M	4.7 $\pm$ 20%	7.2	8.6	22.0	16.0
ACKST1206-5.6uH/M	5.6 $\pm$ 20%	8.5	10.0	18.0	15.0
ACKST1206-6.8uH/M	6.8 $\pm$ 20%	10.0	11.8	17.0	13.5
ACKST1206-8.2uH/M	8.2 $\pm$ 20%	12.0	14.0	16.0	12.5
ACKST1206-10uH/M	10 $\pm$ 20%	12.8	16.5	15.0	12.0
ACKST1206-15uH/M	15 $\pm$ 20%	22.0	26.0	12.0	9.5
ACKST1206-22uH/M	22 $\pm$ 20%	32.0	37.7	8.5	7.0
ACKST1206-33uH/M	33 $\pm$ 20%	44.0	52.0	7.0	6.0
ACKST1206-47uH/M	47 $\pm$ 20%	59.0	73.0	6.8	5.4
ACKST1206-68uH/M	68 $\pm$ 20%	90.0	105.0	5.0	4.2
ACKST1206-82uH/M	82 $\pm$ 20%	120.0	140.0	4.7	3.5
ACKST1206-100uH/M	100 $\pm$ 20%	135.0	160.0	4.5	3.5

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

- Test Condition: 100kHz, 1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate  $\Delta$ T of 40 $^{\circ}$ C
- Operat between temperature range -55 $^{\circ}$ C to +150 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 75V

● **SPECIFICATION TABLE:**

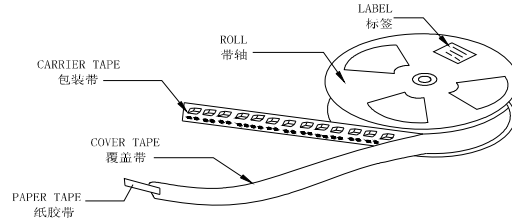
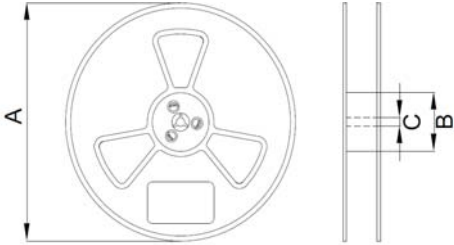
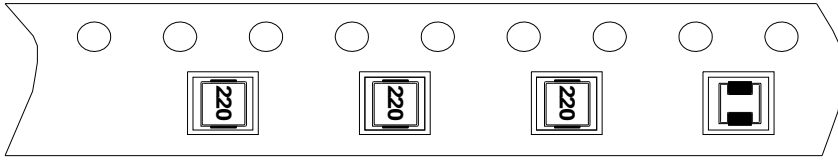
ACKST1707 Series

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
ACKST1707-2.2uH/M	2.2 $\pm$ 20%	2.1	2.5	34.0	29.0
ACKST1707-3.3uH/M	3.3 $\pm$ 20%	2.9	3.2	35.0	23.0
ACKST1707-4.7uH/M	4.7 $\pm$ 20%	4.0	4.8	24.0	21.0
ACKST1707-6.8uH/M	6.8 $\pm$ 20%	6.4	7.5	22.5	15.0
ACKST1707-8.2uH/M	8.2 $\pm$ 20%	7.4	8.7	20.0	14.0
ACKST1707-10uH/M	10 $\pm$ 20%	8.4	9.9	19.0	13.0
ACKST1707-15uH/M	15 $\pm$ 20%	14.5	17.0	14.5	10.0
ACKST1707-22uH/M	22 $\pm$ 20%	19.6	23.0	11.5	8.5
ACKST1707-33uH/M	33 $\pm$ 20%	30.0	37.0	10.7	8.0
ACKST1707-47uH/M	47 $\pm$ 20%	40.0	47.0	7.5	6.0
ACKST1707-68uH/M	68 $\pm$ 20%	58.0	76.0	6.5	4.6
ACKST1707-100uH/M	100 $\pm$ 20%	90.0	106.0	5.0	4.0

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

- Test Condition: 100kHz, 1Vrms
- Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.
- Irms: DC current (A) that will cause an approximate  $\Delta$ T of 40 $^{\circ}$ C
- Operat between temperature range -55 $^{\circ}$ C to +150 $^{\circ}$ C(Including self - temperature rise)
- Absolute maximum voltage: DC 75V

● **PACKAGING SPECIFICATION :**



Type	Reel Dimension (mm)			Quantity (Pcs/Reel)	Quantity (Pcs/Carton)
	A	B	C		
ACKST0402	330	100	13	3000	18K
ACKST0503	330	100	13	1500	9K
ACKST0603	330	100	13	1500	9K
ACKST0605	330	100	13	1000	6K
ACKST1004	330	100	13	1000	4K
ACKST1005	330	100	13	800	3.2K
ACKST1205	330	100	13	400	1.6K
ACKST1206	330	100	13	400	1.6K
ACKST1707	330	100	13	300	1.2K