

## SMD MOLDING POWER INDUCTOR CKSTC Series

### 一体成型电感 CKSTC 系列

#### ● 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.

Magnetic shield structure, closed magnetic circuit, strong antielectromagnetic interference, ultra low buzzer, high density installation

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.

Small volume, large current, in high frequency and high temperature environment to maintain excellent temperature current and saturation current characteristics.

3. 低损耗羰基粉末压铸, 大电流, 低电阻, 高效率.

Low loss Carbonyl Iron Powder casting, high current, low resistance, high efficiency.

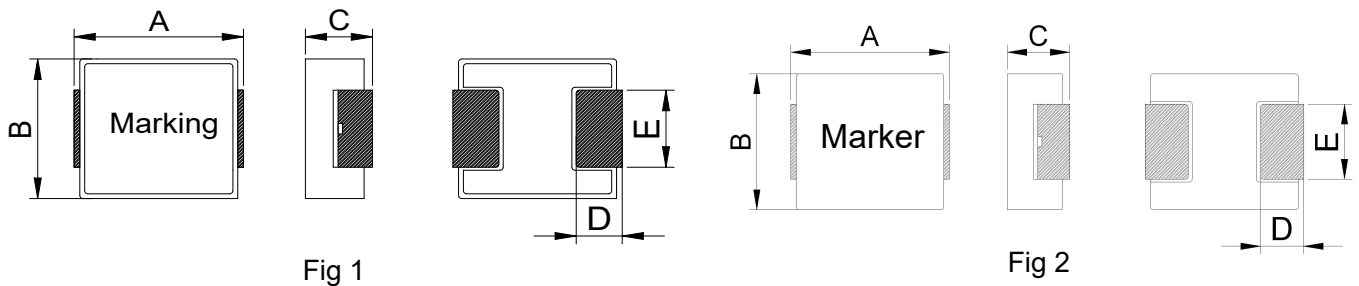


#### ● APPLICATIONS 用途

PAD, 笔记本电脑, 台式机, 服务器, 音箱, 网通, 安防, 手机, 智能家居, 储能设备等

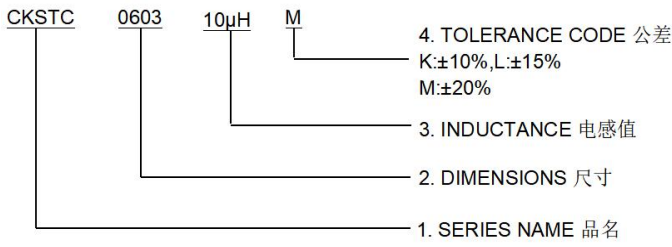
PAD, Notebook, Server, audio, netcom, security, mobile phone, smart home, Energy product...

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

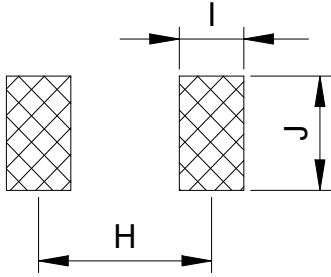


TYPE(型号)	A	B	C	D	E	Fig
CKSTC0402	4.6±0.25	4.1±0.35	2.0 Max	0.76±0.3	1.5±0.3	1
CKSTC0503	5.7±0.25	5.1±0.35	3.0 Max	1.3±0.3	2.3±0.3	1
CKSTC06024	7.1±0.3	6.6±0.3	2.4 Max	1.6±0.3	3.0±0.2	1
CKSTC0603	7.1±0.3	6.6±0.3	3.0 Max	1.6±0.3	3.0±0.2	1
CKSTC0605	7.2±0.3	6.6±0.3	5.0 Max	1.6±0.3	3.0±0.2	1
CKSTC1004	11.1±0.5	10.2±0.3	4.0 Max	2.5±0.5	3.0±0.5	2
CKSTC1205	13.45±0.35	12.6±0.3	5.0 Max	2.5±0.5	3.0±0.5/3.5±0.5	2
CKSTC1206	13.45±0.35	12.6±0.3	6.0 Max	2.5±0.5	3.0±0.5/3.5±0.5	2
CKSTC1707	17.5±0.5	17.0±0.3	7.0 Max	2.5±0.5	11.94±0.3	2

● **PART NUMBERING SYSTEM 品名系统**



● **RECOMMENDED PATTERNS 推荐的焊盘**



TYPE(型号)	H	I	J
CKSTC0402	3.7	1.26	2.0
CKSTC0503	4.1	1.9	2.8
CKSTC06024	6.05	2.35	3.5
CKSTC0603	6.05	2.35	3.5
CKSTC0605	6.05	2.35	3.5
CKSTC1004	9.5	3.5	4.0
CKSTC1205	10.5	4	E=3.0mm,J=4.0mm
CKSTC1206	10.5	4	E=3.5mm,J=4.5mm
CKSTC1707	13.8	3.4	12.6

**● SPECIFICATION TABLE 规格特性表**
**CKSTC0402**

PART NUMBER 型号	INDUCTANCE 电感量 ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C 直流电阻		Saturation Current Isat (A) 饱和电流	Heat Rating Current Irms (A) 温升电流
		Typical	Maximum	Typical	Typical
CKSTC0402-0.22uH/M	0.22 $\pm$ 20%	6.60	7.30	24.00	13.00
CKSTC0402-0.47uH/M	0.47 $\pm$ 20%	11.00	14.00	14.00	8.00
CKSTC0402-1uH/M	1 $\pm$ 20%	22.00	27.00	10.00	5.00
CKSTC0402-1.5uH/M	1.5 $\pm$ 20%	39.00	42.00	7.00	4.50
CKSTC0402-2.2uH/M	2.2 $\pm$ 20%	53.00	61.00	6.00	4.00
CKSTC0402-3.3uH/M	3.3 $\pm$ 20%	75.00	87.00	5.00	3.00
CKSTC0402-4.7uH/M	4.7 $\pm$ 20%	97.00	116.00	4.00	2.50
CKSTC0402-6.8uH/M	6.8 $\pm$ 20%	144.00	170.00	3.50	2.00
CKSTC0402-10uH/M	10 $\pm$ 20%	215.00	240.00	3.00	1.50

**CKSTC0503**

PART NUMBER 型号	INDUCTANCE 电感量 ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C 直流电阻		Saturation Current Isat (A) 饱和电流	Heat Rating Current Irms (A) 温升电流
		Typical	Maximum	Typical	Typical
CKSTC0503-0.33uH/M	0.33 $\pm$ 20%	4.80	6.50	20.00	14.00
CKSTC0503-0.47uH/M	0.47 $\pm$ 20%	6.40	7.40	16.00	12.00
CKSTC0503-0.68uH/M	0.68 $\pm$ 20%	10.00	12.00	14.00	8.50
CKSTC0503-1uH/M	1 $\pm$ 20%	12.00	14.00	13.00	7.00
CKSTC0503-1.5uH/M	1.5 $\pm$ 20%	16.00	25.00	10.00	6.00
CKSTC0503-2.2uH/M	2.2 $\pm$ 20%	25.00	35.00	9.00	5.50
CKSTC0503-3.3uH/M	3.3 $\pm$ 20%	32.00	38.00	8.00	5.00
CKSTC0503-4.7uH/M	4.7 $\pm$ 20%	55.00	60.00	6.00	4.00
CKSTC0503-6.8uH/M	6.8 $\pm$ 20%	72.00	80.00	5.00	3.80
CKSTC0503-10uH/M	10 $\pm$ 20%	117.00	128.00	4.00	2.80

**Remark:** 1. All test data is reference to 25 $^{\circ}$ C ambient.

2. Test Condition: 100kHz, 1Vrms

3. Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.

4. Irms: DC current (A) that will cause an approximate  $\Delta$ T of 40 $^{\circ}$ C

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

6. Absolute maximum voltage: DC 50V

**CKSTC06024**

PART NUMBER 型号	INDUCTANCE 电感量 ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C 直流电阻		Saturation Current Isat (A) 饱和电流	Heat Rating Current Irms (A) 温升电流
		Typical	Maximum	Typical	Typical
CKSTC06024-0.68uH/M	0.68 $\pm$ 20%	5.80	7.20	21.00	13.00
CKSTC06024-1uH/M	1 $\pm$ 20%	10.50	13.50	16.00	10.00
CKSTC06024-1.5uH/M	1.5 $\pm$ 20%	17.00	20.00	15.00	9.00
CKSTC06024-2.2uH/M	2.2 $\pm$ 20%	20.00	28.00	14.00	7.00
CKSTC06024-3.3uH/M	3.3 $\pm$ 20%	32.00	39.00	11.00	5.00
CKSTC06024-6.8uH/M	6.8 $\pm$ 20%	73.00	95.00	9.00	4.00
CKSTC06024-10uH/M	10 $\pm$ 20%	89.00	101.00	4.50	3.20

**CKSTC0603**

PART NUMBER 型号	INDUCTANCE 电感量 ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C 直流电阻		Saturation Current Isat (A) 饱和电流	Heat Rating Current Irms (A) 温升电流
		Typical	Maximum	Typical	Typical
CKSTC0603-0.33uH/M	0.33 $\pm$ 20%	3.50	3.90	32.00	20.00
CKSTC0603-0.47uH/M	0.47 $\pm$ 20%	3.60	4.20	26.00	17.50
CKSTC0603-0.68uH/M	0.68 $\pm$ 20%	5.30	5.90	25.00	15.50
CKSTC0603-0.82uH/M	0.82 $\pm$ 20%	6.70	8.00	24.00	13.00
CKSTC0603-1uH/M	1 $\pm$ 20%	8.30	10.00	22.00	11.00
CKSTC0603-1.5uH/M	1.5 $\pm$ 20%	12.50	15.00	18.00	9.00
CKSTC0603-2.2uH/M	2.2 $\pm$ 20%	17.00	20.00	14.00	8.00
CKSTC0603-3.3uH/M	3.3 $\pm$ 20%	28.00	30.00	13.50	6.00
CKSTC0603-4.7uH/M	4.7 $\pm$ 20%	32.00	38.00	10.00	5.50
CKSTC0603-6.8uH/M	6.8 $\pm$ 20%	50.00	60.00	8.00	4.50
CKSTC0603-10uH/M	10 $\pm$ 20%	65.00	85.00	7.00	3.50
CKSTC0603-15uH/M	15 $\pm$ 20%	108.00	120.00	5.00	2.80
CKSTC0603-22uH/M	22 $\pm$ 20%	165.00	189.00	4.50	2.30

**Remark:** 1. All test data is reference to 25 $^{\circ}$ C ambient.

2. Test Condition: 100kHz, 1Vrms

3. Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.

4. Irms: DC current (A) that will cause an approximate  $\Delta$ T of 40 $^{\circ}$ C

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

6. Absolute maximum voltage: DC 50V

**CKSTC0605**

PART NUMBER 型号	INDUCTANCE 电感量 ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C 直流电阻		Saturation Current Isat (A) 饱和电流	Heat Rating Current Irms (A) 温升电流
		Typical	Maximum	Typical	Typical
CKSTC0605-0.33uH/M	0.33 $\pm$ 20%	2.30	3.00	32.00	25.00
CKSTC0605-0.47uH/M	0.47 $\pm$ 20%	3.20	3.90	30.00	22.00
CKSTC0605-0.68uH/M	0.68 $\pm$ 20%	3.80	4.50	24.00	18.00
CKSTC0605-1uH/M	1 $\pm$ 20%	5.10	6.20	20.00	15.00
CKSTC0605-1.5uH/M	1.5 $\pm$ 20%	7.10	8.50	15.00	12.00
CKSTC0605-2.2uH/M	2.2 $\pm$ 20%	11.20	13.50	14.00	10.00
CKSTC0605-3.3uH/M	3.3 $\pm$ 20%	18.50	21.00	13.00	8.00
CKSTC0605-4.7uH/M	4.7 $\pm$ 20%	27.00	30.00	12.00	6.50
CKSTC0605-6.8uH/M	6.8 $\pm$ 20%	39.00	44.00	10.00	6.00
CKSTC0605-10uH/M	10 $\pm$ 20%	53.00	60.00	8.00	4.20
CKSTC0605-15uH/M	15 $\pm$ 20%	78.00	90.00	6.00	3.50
CKSTC0605-22uH/M	22 $\pm$ 20%	120.00	140.00	5.00	2.80

**CKSTC1004**

PART NUMBER 型号	INDUCTANCE 电感量 ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C 直流电阻		Saturation Current Isat (A) 饱和电流	Heat Rating Current Irms (A) 温升电流
		Typical	Maximum	Typical	Typical
CKSTC1004-0.47uH/M-B	0.47 $\pm$ 20%	1.30	1.50	43.00	28.00
CKSTC1004-1uH/M-B	1 $\pm$ 20%	2.60	3.30	36.00	18.00
CKSTC1004-1.5uH/M-B	1.5 $\pm$ 20%	3.60	4.20	33.00	16.00
CKSTC1004-2.2uH/M	2.2 $\pm$ 20%	6.50	7.60	27.00	12.00
CKSTC1004-3.3uH/M	3.3 $\pm$ 20%	10.50	11.80	20.00	11.00
CKSTC1004-4.7uH/M	4.7 $\pm$ 20%	12.80	15.50	19.00	10.00
CKSTC1004-6.8uH/M	6.8 $\pm$ 20%	19.00	23.30	13.50	8.50
CKSTC1004-10uH/M	10 $\pm$ 20%	25.00	30.00	12.00	7.50
CKSTC1004-15uH/M	15 $\pm$ 20%	40.00	45.00	10.00	6.30
CKSTC1004-22uH/M	22 $\pm$ 20%	58.00	66.00	7.00	5.00
CKSTC1004-33uH/M	33 $\pm$ 20%	95.00	112.00	6.00	3.50

**Remark:** 1. All test data is reference to 25 $^{\circ}$ C ambient.

2. Test Condition: 100kHz, 1Vrms

3. Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.

4. Irms: DC current (A) that will cause an approximate  $\Delta$ T of 40 $^{\circ}$ C

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

6. Absolute maximum voltage: DC 50V

7. -B indicate non-leadframe

**CKSTC1205**

PART NUMBER 型号	INDUCTANCE 电感量 ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C 直流电阻		Saturation Current Isat (A) 饱和电流	Heat Rating Current Irms (A) 温升电流
		Typical	Maximum	Typical	Typical
CKSTC1205-0.36uH/M-B	0.36 $\pm$ 20%	0.75	0.95	75.00	42.00
CKSTC1205-0.68uH/M-B	0.68 $\pm$ 20%	1.35	1.70	54.00	34.00
CKSTC1205-1uH/M-B	1 $\pm$ 20%	2.00	2.50	50.00	29.00
CKSTC1205-1.5uH/M-B	1.5 $\pm$ 20%	2.60	3.30	48.00	27.00
CKSTC1205-2.2uH/M-B	2.2 $\pm$ 20%	4.00	5.00	40.00	20.00
CKSTC1205-3.3uH/M	3.3 $\pm$ 20%	7.80	9.00	35.00	15.00
CKSTC1205-4.7uH/M	4.7 $\pm$ 20%	8.80	10.50	25.00	13.00
CKSTC1205-6.8uH/M	6.8 $\pm$ 20%	16.30	18.50	22.00	11.00
CKSTC1205-8.2uH/M	8.2 $\pm$ 20%	17.00	22.50	18.00	10.00
CKSTC1205-10uH/M	10 $\pm$ 20%	23.00	28.00	15.00	9.00
CKSTC1205-15uH/M	15 $\pm$ 20%	30.00	36.00	13.00	8.00
CKSTC1205-22uH/M	22 $\pm$ 20%	50.00	58.00	10.00	6.50
CKSTC1205-33uH/M	33 $\pm$ 20%	71.00	85.00	8.00	5.20

**Remark:** 1. All test data is reference to 25 $^{\circ}$ C ambient.

2. Test Condition: 100kHz, 1Vrms

3. Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.

4. Irms: DC current (A) that will cause an approximate  $\Delta$ T of 40 $^{\circ}$ C

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

6. Absolute maximum voltage: DC 50V

7. CKSTC1205-1uH,2.2uH Dimensions E=3.0 $\pm$ 0.5mm , Other P/N E=3.5 $\pm$ 0.5mm

8. -B indicate non-leadframe

**CKSTC1206**

PART NUMBER 型号	INDUCTANCE 电感量 ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C 直流电阻		Saturation Current Isat (A) 饱和电流	Heat Rating Current Irms (A) 温升电流
		Typical	Maximum	Typical	Typical
CKSTC1206-1.5uH/M-B	1.5 $\pm$ 20%	2.40	3.20	50.00	27.50
CKSTC1206-2.2uH/M-B	2.2 $\pm$ 20%	3.30	4.20	43.00	23.00
CKSTC1206-3.3uH/M-B	3.3 $\pm$ 20%	4.50	6.00	36.00	20.00
CKSTC1206-4.7uH/M-B	4.7 $\pm$ 20%	7.00	8.40	30.00	19.00
CKSTC1206-6.8uH/M	6.8 $\pm$ 20%	12.00	13.00	25.00	15.00
CKSTC1206-10uH/M	10 $\pm$ 20%	18.00	20.00	21.00	11.00
CKSTC1206-15uH/M	15 $\pm$ 20%	25.00	29.00	16.00	9.00
CKSTC1206-22uH/M	22 $\pm$ 20%	32.00	37.50	12.00	8.00
CKSTC1206-47uH/M	47 $\pm$ 20%	75.00	90.00	9.00	5.50

**Remark:** 1. All test data is reference to 25 $^{\circ}$ C ambient.

2. Test Condition: 100kHz, 1Vrms

3. Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.

4. Irms: DC current (A) that will cause an approximate  $\Delta$ T of 40 $^{\circ}$ C

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

6. Absolute maximum voltage: DC 50V

7. CKSTC1206-2.2uH,3.3uH,4.7uH Dimensions E=3.0 $\pm$ 0.5mm , Other P/N E=3.5 $\pm$ 0.5mm

8. -B indicate non-leadframe

**CKSTC1707**

PART NUMBER 型号	INDUCTANCE 电感量 ( $\mu$ H)	DCR (m $\Omega$ ) @25 $^{\circ}$ C 直流电阻		Saturation Current Isat (A) 饱和电流	Heat Rating Current Irms (A) 温升电流
		Typical	Maximum	Typical	Typical
CKSTC1707-1.5uH/M	1.5 $\pm$ 20%	1.70	2.50	65.00	47.00
CKSTC1707-2.2uH/M	2.2 $\pm$ 20%	2.10	2.70	62.00	43.50
CKSTC1707-3.3uH/M	3.3 $\pm$ 20%	3.00	3.90	54.00	28.00
CKSTC1707-4.7uH/M	4.7 $\pm$ 20%	4.80	5.80	45.00	25.00
CKSTC1707-6.8uH/M	6.8 $\pm$ 20%	7.00	9.20	39.00	19.00
CKSTC1707-10uH/M	10 $\pm$ 20%	10.20	13.00	29.00	16.50
CKSTC1707-15uH/M	15 $\pm$ 20%	17.00	20.50	27.00	13.00
CKSTC1707-22uH/M	22 $\pm$ 20%	21.00	26.50	23.00	12.00
CKSTC1707-33uH/M	33 $\pm$ 20%	30.00	38.00	20.00	11.00
CKSTC1707-47uH/M	47 $\pm$ 20%	45.00	55.00	16.00	8.70
CKSTC1707-68uH/M	68 $\pm$ 20%	68.00	80.00	13.00	7.00
CKSTC1707-100uH/M	100 $\pm$ 20%	100.00	118.00	10.00	5.30

**Remark:** 1. All test data is reference to 25 $^{\circ}$ C ambient.

2. Test Condition: 100kHz, 1Vrms

3. Isat : DC current (A) that will cause L0 to drop approximately 30% Typ.

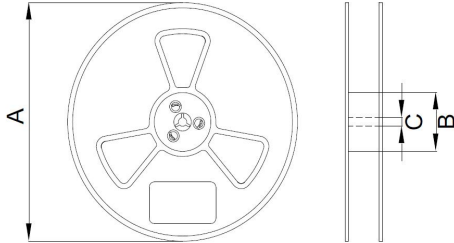
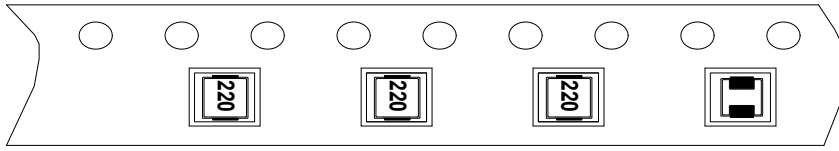
4. Irms: DC current (A) that will cause an approximate  $\Delta$ T of 40 $^{\circ}$ C

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

6. Absolute maximum voltage: DC 50V



● **PACKAGING SPECIFICATION 包装规格**



TYPE(型号)	Reel Dimension 卷盘尺寸 (mm)			Quantity (Pcs/Reel) 数量 (个/卷)
	A	B	C	
CKSTC0402	330	100	13	3000
CKSTC0503	330	100	13	1500
CKSTC06024	330	100	13	1500
CKSTC0603	330	100	13	1500
CKSTC0605	330	100	13	1000
CKSTC1004	330	100	13	1000
CKSTC1205	330	100	13	400
CKSTC1206	330	100	13	400
CKSTC1707	330	100	13	300