

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.

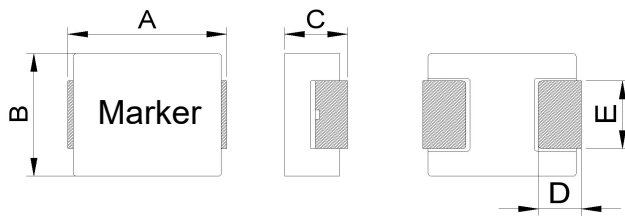


● APPLICATIONS 用途

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
CKSTC0402P	4.4±0.35	4.2±0.25	2.0 Max	0.8±0.3	2.0±0.3
CKSTC0503P	5.5±0.35	5.2±0.25	3.0 Max	1.3±0.3	2.3±0.3
CKSTC0624P	7.1±0.3	6.6±0.3	2.4 Max	1.6±0.3	3.0±0.2
CKSTC0603P	7.1±0.3	6.6±0.3	3.0 Max	1.6±0.3	3.0±0.2
CKSTC0605P	7.2±0.3	6.6±0.3	5.0 Max	1.6±0.3	3.0±0.2
CKSTC1004	11.1±0.5	10.2±0.3	4.0 Max	2.5±0.5	3.0±0.5
CKSTC1205	13.45±0.35	12.6±0.3	5.0 Max	2.5±0.5	3.0±0.5/3.5±0.5
CKSTC1206	13.45±0.35	12.6±0.3	6.0 Max	2.5±0.5	3.0±0.5/3.5±0.5
CKSTC1707	17.5±0.5	17.0±0.3	7.0 Max	2.5±0.5	11.94±0.3

● **PART NUMBERING SYSTEM** 品名系统

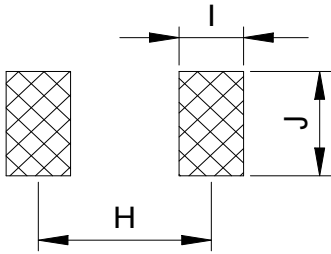
CKSTC 0603P - 1uH - M

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** 推荐的焊盘



TYPE(型号)	H	I	J
CKSTC0402P	3.7	1.26	2.5
CKSTC0503P	4.1	1.9	2.8
CKSTC0624P	6.05	2.35	3.5
CKSTC0603P	6.05	2.35	3.5
CKSTC0605P	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
CKSTC0402P

PART NUMBER 型号	INDUCTANCE 电感量 (μ H)	DCR (m Ω) @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
CKSTC0402P-0.22uH/M	0.22 \pm 20%	6.60	7.30	24.00	13.00
CKSTC0402P-0.47uH/M	0.47 \pm 20%	11.00	14.00	14.00	8.00
CKSTC0402P-1uH/M	1 \pm 20%	22.00	27.00	10.00	5.00
CKSTC0402P-1.5uH/M	1.5 \pm 20%	39.00	42.00	7.00	4.50
CKSTC0402P-2.2uH/M	2.2 \pm 20%	53.00	61.00	6.00	4.00
CKSTC0402P-3.3uH/M	3.3 \pm 20%	75.00	87.00	5.00	3.00
CKSTC0402P-4.7uH/M	4.7 \pm 20%	97.00	116.00	4.00	2.50
CKSTC0402P-6.8uH/M	6.8 \pm 20%	144.00	170.00	3.50	2.00
CKSTC0402P-10uH/M	10 \pm 20%	215.00	240.00	3.00	1.50

CKSTC0503P

PART NUMBER 型号	INDUCTANCE 电感量 (μ H)	DCR (m Ω) @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
CKSTC0503P-0.33uH/M	0.33 \pm 20%	4.80	6.50	20.00	14.00
CKSTC0503P-0.47uH/M	0.47 \pm 20%	6.40	7.40	16.00	12.00
CKSTC0503P-0.68uH/M	0.68 \pm 20%	10.00	12.00	14.00	8.50
CKSTC0503P-1uH/M	1 \pm 20%	12.00	14.00	13.00	7.00
CKSTC0503P-1.5uH/M	1.5 \pm 20%	16.00	25.00	10.00	6.00
CKSTC0503P-2.2uH/M	2.2 \pm 20%	25.00	35.00	9.00	5.50
CKSTC0503P-3.3uH/M	3.3 \pm 20%	32.00	38.00	8.00	5.00
CKSTC0503P-4.7uH/M	4.7 \pm 20%	55.00	60.00	6.00	4.00
CKSTC0503P-6.8uH/M	6.8 \pm 20%	72.00	80.00	5.00	3.80
CKSTC0503P-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 Δ 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

CKSTC0624P

PART NUMBER 型号	INDUCTANCE 电感量 (μ H)	DCR (m Ω) @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
CKSTC0624P-0.68uH/M	0.68 \pm 20%	5.80	7.20	21.00	13.00
CKSTC0624P-1uH/M	1 \pm 20%	10.50	13.50	16.00	10.00
CKSTC0624P-1.5uH/M	1.5 \pm 20%	17.00	20.00	15.00	9.00
CKSTC0624P-2.2uH/M	2.2 \pm 20%	20.00	28.00	14.00	7.00
CKSTC0624P-3.3uH/M	3.3 \pm 20%	32.00	39.00	11.00	5.00
CKSTC0624P-6.8uH/M	6.8 \pm 20%	73.00	95.00	9.00	4.00
CKSTC0624P-10uH/M	10 \pm 20%	89.00	101.00	4.50	3.20

CKSTC0603P

PART NUMBER 型号	INDUCTANCE 电感量 (μ H)	DCR (m Ω) @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
CKSTC0603P-0.33uH/M	0.33 \pm 20%	3.50	3.90	32.00	20.00
CKSTC0603P-0.47uH/M	0.47 \pm 20%	3.60	4.20	26.00	17.50
CKSTC0603P-0.68uH/M	0.68 \pm 20%	5.30	5.90	25.00	15.50
CKSTC0603P-0.82uH/M	0.82 \pm 20%	6.70	8.00	24.00	13.00
CKSTC0603P-1uH/M	1 \pm 20%	8.30	10.00	22.00	11.00
CKSTC0603P-1.5uH/M	1.5 \pm 20%	12.50	15.00	18.00	9.00
CKSTC0603P-2.2uH/M	2.2 \pm 20%	17.00	20.00	14.00	8.00
CKSTC0603P-3.3uH/M	3.3 \pm 20%	28.00	30.00	13.50	6.00
CKSTC0603P-4.7uH/M	4.7 \pm 20%	32.00	38.00	10.00	5.50
CKSTC0603P-6.8uH/M	6.8 \pm 20%	50.00	60.00	8.00	4.50
CKSTC0603P-10uH/M	10 \pm 20%	65.00	85.00	7.00	3.50
CKSTC0603P-15uH/M	15 \pm 20%	108.00	120.00	5.00	2.80
CKSTC0603P-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 Δ 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

CKSTC0605P

PART NUMBER 型号	INDUCTANCE 电感量 (μ H)	DCR (m Ω) @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
CKSTC0605P-0.33uH/M	0.33 \pm 20%	2.30	3.00	32.00	25.00
CKSTC0605P-0.47uH/M	0.47 \pm 20%	3.20	3.90	30.00	22.00
CKSTC0605P-0.68uH/M	0.68 \pm 20%	3.80	4.50	24.00	18.00
CKSTC0605P-1uH/M	1 \pm 20%	5.10	6.20	20.00	15.00
CKSTC0605P-1.5uH/M	1.5 \pm 20%	7.10	8.50	15.00	12.00
CKSTC0605P-2.2uH/M	2.2 \pm 20%	11.20	13.50	14.00	10.00
CKSTC0605P-3.3uH/M	3.3 \pm 20%	18.50	21.00	13.00	8.00
CKSTC0605P-4.7uH/M	4.7 \pm 20%	27.00	30.00	12.00	6.50
CKSTC0605P-6.8uH/M	6.8 \pm 20%	39.00	44.00	10.00	6.00
CKSTC0605P-10uH/M	10 \pm 20%	53.00	60.00	8.00	4.20
CKSTC0605P-15uH/M	15 \pm 20%	78.00	90.00	6.00	3.50
CKSTC0605P-22uH/M	22 \pm 20%	120.00	140.00	5.00	2.80

CKSTC1004

PART NUMBER 型号	INDUCTANCE 电感量 (μ H)	DCR (m Ω) @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:**
- 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 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 50V
 - B indicate non-leadframe

CKSTC1205

PART NUMBER 型号	INDUCTANCE 电感量 (μ H)	DCR (m Ω) @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 Δ 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 (μ H)	DCR (m Ω) @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 Δ 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 (μ H)	DCR (m Ω) @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.

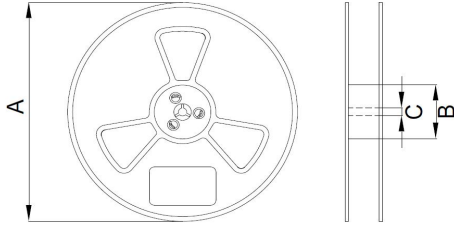
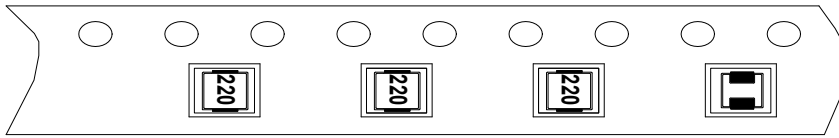
4. Irms: DC current (A) that will cause an approximate Δ T of 40 $^{\circ}$ C

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	
CKSTC0402P	330	100	13	3000
CKSTC0503P	330	100	13	1500
CKSTC0624P	330	100	13	1500
CKSTC0603P	330	100	13	1500
CKSTC0605P	330	100	13	1000
CKSTC1004	330	100	13	1000
CKSTC1205	330	100	13	400
CKSTC1206	330	100	13	400
CKSTC1707	330	100	13	300



MODIFY RECORD

Version	Date	Content	Prepared	Approved
A0	2022/6/15	新版发行	万芳中	王其良
A1	2023/7/26	更新特性	万芳中	王其良
A2	2024/8/14	CKSTC06024, CKSTC0603, CKSTC0605, CKSTC1004, CKSTC1205, CKSTC1206系列, A尺寸加公差, CKSTC1205, CKSTC1206系列, E尺寸由 2.7 ± 0.7 变更为 2.5 ± 0.5 , CKSTC1707系列, A尺寸由 17.5 ± 1.0 变更为 17.5 ± 0.5 , B尺寸由 17.5 Max. 变更为 17.0 ± 0.3	彭嘉蓉	王其良
A3	2024/10/14	CKSTC0402, CKSTC0503, CKSTC06024,CKSTC0603, CKSTC0605系列变更为平模 CKSTC0402P, A尺寸由 4.6 ± 0.25 变更为 4.4 ± 0.35 , B尺寸由 4.1 ± 0.35 变更为 4.2 ± 0.25 CKSTC0503P, A尺寸由 5.7 ± 0.25 变更为 5.5 ± 0.35 , B尺寸由 5.1 ± 0.35 变更为 5.2 ± 0.25	彭嘉蓉	王其良