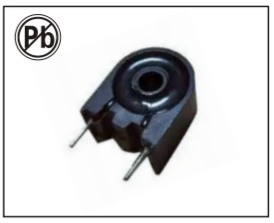
CURRENT SENSE TRANSFORMERS

ACST02 SERIES



FEATURES:

- Fully encapsulated for optimal PC board mounting
- Frequency range from 20KHz to 200KHz
- Primary current rating to 30 Amps
- Primary to secondary isolated to 2500 or 4000VAC
- Meets VDE norms
- Optimum performance over designated current and frequency range
- Competitive pricing due to high volume production
- Manufactured in an ISO 9001:2015 and ISO 14001:2015 certified Talema facility
- Fully RoHS & REACH Compliant

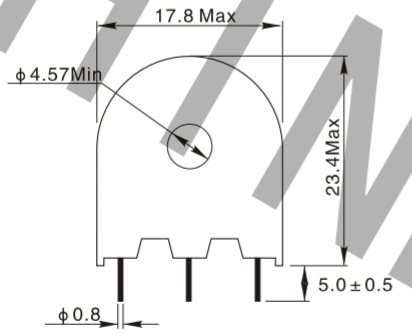
APPLICATIONS:

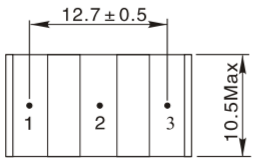
- Isolated current feed–back signal in Switch Mode Power Supplies
- Motor current load/overload
- Lighting
- Switch Controls Ultra–sound current
- High resolution sonar current
- Isolated bi–directional current sensor with full wave bridge rectifier

ELECTRICAL CHARACTERISTICS@25℃

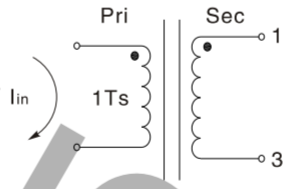
Part Number	Turns ratio	Sec inductance (mH)Min.	Sec DCR (Ω)Max	Isec Max ①	Volt uS Max ②	winding
ACST02–500	1:50	5	0.6	300mA	175	A
ACST02–101	1:100	22	1.1	150mA	350	A
ACST02–201	1:200	89	4.5	75mA	700	A
ACST02–301	1:300	200	10.0	50mA	900	A
ACST02–501	1:500	560	25.0	30mA	1500	A
ACST02–751	1:750	1260	43.0	40mA	3750	A
ACST02–500CT	1:50CT	5	0.3/0.3	300mA	175	B
ACST02–101CT	1:100CT	22	0.55/0.55	150mA	350	B
ACST02–201CT	1:200CT	89	2.25/2.25	75mA	700	B
ACST02–301CT	1:300CT	200	10.0/5.0	50mA	900	B
ACST02–501CT	1:500CT	560	12.5/12.5	30mA	1500	B
ACST02–751CT	1:750CT	1260	21.5/21.5	40mA	3750	B

PHYSICAL CHARACTERISTICS & WINDING

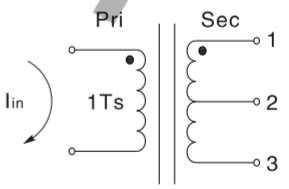




Schematic A



Schematic B



Notes

1.For Prim./Sec. Ratios of 1:50 through 1:500, the Isec value corresponds to a maximum primary current of 15 Amp–turns rms while the Isec value for the ratio of 1:750 corresponds to a max. primary current of 30 Amp–turns rms.

2.VuS = R t x Is x1/2F
Rt (Ohms) : Recommended Terminating Resistance
Is (A) : Secondary Current
F (Hz) : Frequency

3.Secondary inductance tested at 10KHz and 10mV for 1:50 through 1:500 Prim./Sec. Ratios and 1KHz/10mV for Prim./Sec. ratio of 1:750

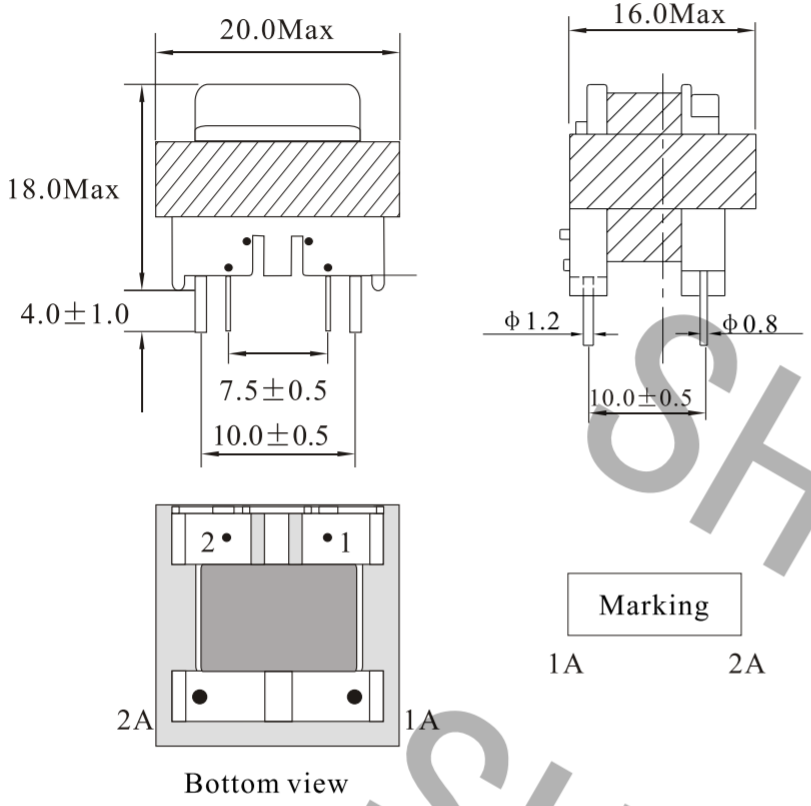
4.Ambient temperature range:–40℃ to +120℃.

5.Electrical specifications at 25℃.

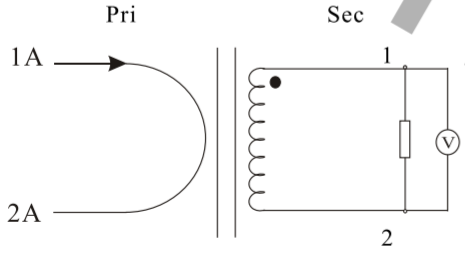
6.Pin# 2 is on Center–Tapped (CT) versions only

SHINHOM

1.PHYSICAL CHARACTERISTICS(mm)



2.ELECTRONICAL SCHEMATIC



3.ELECTRONICAL SPECIFICATIONS

Model Number	Current ratio	Accyracy	Linearity	Output @ 50/60Hz
ACST014-681	680:1	±2%	<1%	2.2Vrms
ACST014-102	1000:1	±2%	<1%	3.2Vrms
ACST014-152	1500:1	±2%	<1%	4.7Vrms
ACST014-252	2500:1	±2%	<1%	7.9Vrms
ACST014A-681	680:1	±5%	<5%	2.2Vrms
ACST014A-102	1000:1	±5%	<5%	3.2Vrms
ACST014A-152	1500:1	±5%	<5%	4.7Vrms
ACST014A-252	2500:1	±5%	<5%	7.9Vrms

Hi-Pot: 2.5kVrms,50/60Hz,10S Winding to Winding

Hi-Pot: 1.25kVrms,50/60Hz,10S Winding to Core

Operating Temperature: -30~95℃

Storage Temperature: -50~125℃

NOTES:

Temp 20℃ 48%RH

RoHS Compliant

SHINHOM SHINHOM SHINHOM

NAME:	Current Sensor		
CUSTOMER P/N:		DATE:	2013-01-08
SHINHOM P/N:	ACST014 Series	REV: A0	PAGE
DRAWN BY	CHECKED BY	APPROVE BY	

SHINHOM

SHAANXISHINHOM ENTERPRISE CO LTD

The Document property belong to SHINHOM & is not allowed to be duplicated without authorization

CURRENT SENSE TRANSFORMERS

ACST19 SERIES



FEATURES:

- Meets requirements of IEC 950 and VDE norms
  UL94V–0 recognized materials
- Operating frequency range from 20KHz to 200KHz
- Epoxy encapsulated construction

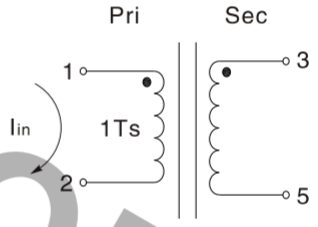
ELECTRICAL CHARACTERISTICS@25℃

Part Number	Turns ratio	Sec inductance (3–5) (mH)Min.	Sec DCR (3–5) (Ω)Max	Isec ① Max	Volt uS ② Max	winding
ACST19–500	1:50	5	0.65	300mA	175	A
ACST19–101	1:100	20	1.3	150mA	350	A
ACST19–201	1:200	80	4.5	75mA	700	A
ACST19–500CT	1:50CT	5	0.65	300mA	175	B
ACST19–101CT	1:100CT	20	1.3	150mA	350	B
ACST19–201CT	1:200CT	80	4.5	75mA	700	B

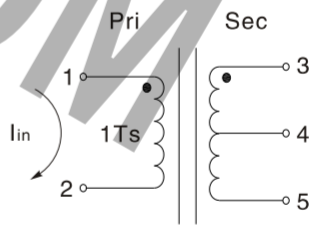
PHYSICAL CHARACTERISTICS & WINDING

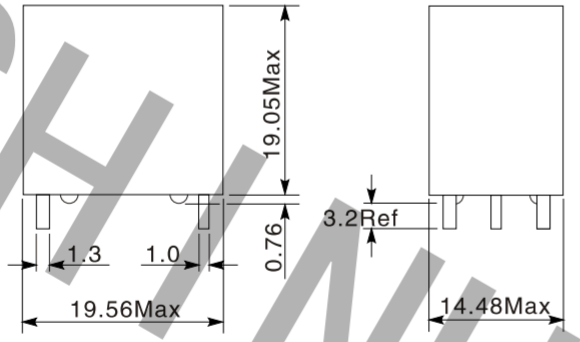


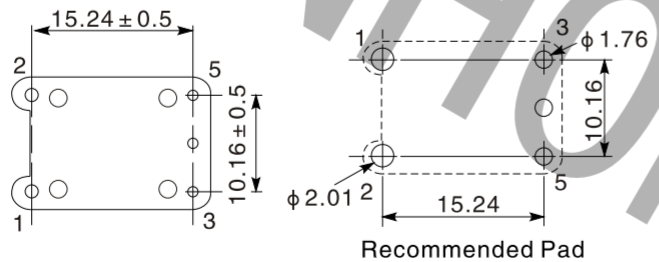
Schematic A



Schematic B







Recommended Pad

Notes

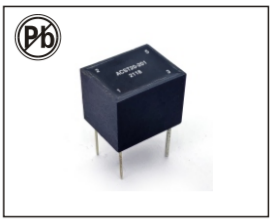
1.Isec value corresponds to a maximum primary current of 15 Amp–turns rms
2.VuS = R t x Is x1/2F
Rt (Ohms) : Recommended Terminating Resistance
Is (A) : Secondary Current
F (Hz) : Frequency
3.Secondary inductance tested at 10KHz and 10mV
4.Ambient temperature range:–40℃ to +120℃.
5.Electrical specifications at 25℃.
6.Pin# 4 is on Center–Tapped (CT) versions only

Note:All specifications subject to change without notice.

SHINHOM SHINHOM SHINHOM

CURRENT SENSE TRANSFORMERS

ACST20 SERIES



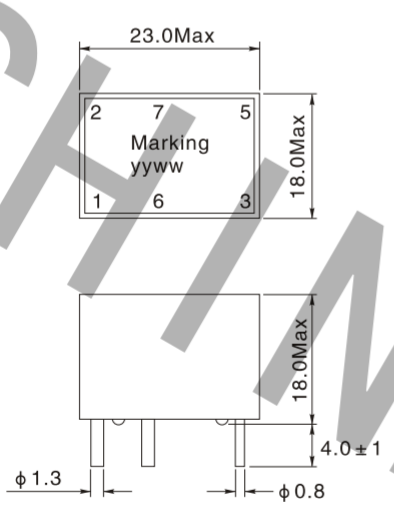
FEATURES:

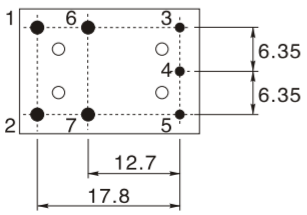
- Meets requirements of IEC 950 and VDE norms
  UL94V–0 recognized materials
- Operating frequency range from 20KHz to 200KHz
- Epoxy encapsulated construction

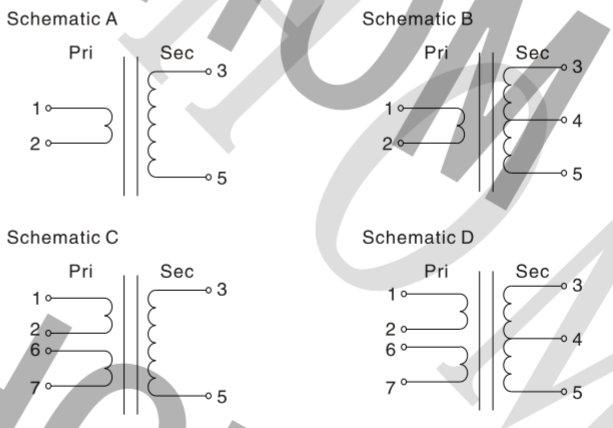
ELECTRICAL CHARACTERISTICS@25℃

Part Number	Turns ratio	Sec inductance (mH)Min.	Sec DCR (Ω)Max	Isec Max ①	Volt uS Max ②	winding
ACST20–500	1:50	5	0.65	300mA	175	A
ACST20–101	1:100	20	1.3	150mA	350	A
ACST20–201	1:200	80	4.5	75mA	700	A
ACST20–500CT	1:50CT	5	0.65	300mA	175	B
ACST20–101CT	1:100CT	20	1.3	150mA	350	B
ACST20–201CT	1:200CT	80	4.5	75mA	700	B
ACST20A–500	1:1:50	5	0.65	300mA	175	C
ACST20A–101	1:1:100	20	1.3	150mA	350	C
ACST20A–201	1:1:200	80	4.5	75mA	700	C
ACST20A–500CT	1:1:50CT	5	0.65	300mA	175	D
ACST20A–101CT	1:1:100CT	20	1.3	150mA	350	D
ACST20A–201CT	1:1:200CT	80	4.5	75mA	700	D

PHYSICAL CHARACTERISTICS & WINDING







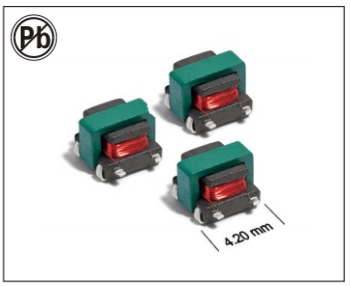
Notes

1.Isec value corresponds to a maximum primary current of 15 Amp–turns rms
2.VuS = R t x Is x1/2F
  Rt (Ohms) : Recommended Terminating Resistance
  Is (A) : Secondary Current
  F (Hz) : Frequency
3.Secondary inductance tested at 10KHz and 10mV
4.Ambient temperature range: –40℃ to +120℃.
5.Electrical specifications at 25℃.
6.Pin# 4 is on Center–Tapped (CT) versions only
7.Pin#6,#7 is on ACST20A versions only

SHINHOM

Current Sense Transformer

ACSTE4.2 SERIES



FEATURES:

- AEC–Q200 Grade 1 (40℃ to +125℃)
- Miniature SMT design, only 4.5 × 4.8mm footprint
- 500Vrms,one minute isolation(hipot) between windings
- Designed for use up to 1MHz and above to sense continuous currents to 7 Amps

APPLICATIONS:

- Switching power supplies
- Feedback control
- Overload sensing
- Load drop/Shut down detection

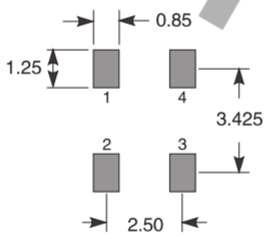
ELECTRICAL SPECIFICATIONS:

Part No.	Turns ratio	Ls (uH, Min) 100KHz,0.1V	Rp (Ω,Max)	Rs (Ω,Max)	Sensed Current (A)	Frequency range (KHz)	Volt–time product (Vusec)	Rt (Ω)
ACSTE4.2–200	1:20	33	0.003	0.35	7	83–1000	6	2.9
ACSTE4.2–300	1:30	74	0.003	0.9	7	56–1000	9	4.3
ACSTE4.2–400	1:40	132	0.003	1.6	7	42–1000	12	5.7
ACSTE4.2–500	1:50	205	0.003	2.5	7	33–1000	15	7.1
ACSTE4.2–600	1:60	295	0.003	3.6	7	28–1000	18	8.6
ACSTE4.2–700	1:70	400	0.003	4.6	7	24–1000	21	10
ACSTE4.2–101	1:100	820	0.003	9.5	7	17–1000	30	14.3
ACSTE4.2–121	1:125	1280	0.003	13.0	7	13–1000	37.5	17.9
ACSTE4.2–151	1:150	1800	0.003	21.0	7	11–1000	45	21.4

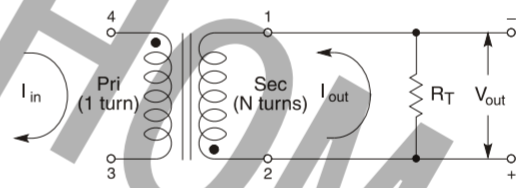
MECHANICAL: Unit:mm

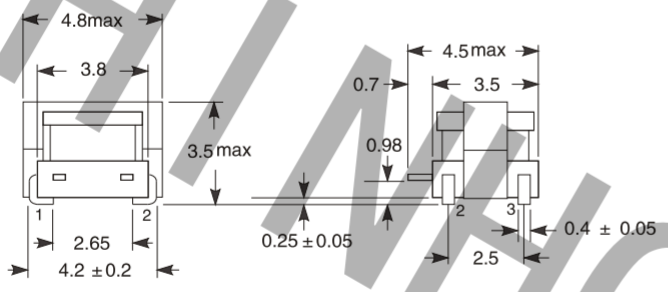


Recommended Land Pattern

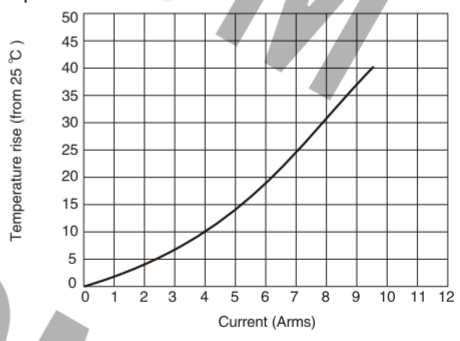


Schematic





Temperature Rise vs Current



NOTES

1.Primary current of 7 A causes less than 25℃ temperature rise from 25℃ ambient. Higher current causes a greater temperature rise
2.Ambient temperature 40℃ to +125℃
3.Maximum part temperature +165℃ (ambient + temp rise)
4.Storage temperature Component: 40℃ to +165℃
Tape and reel Packaging: 40℃ to +80℃
5.Inductance measured between secondary pins at 100kHz, 0.1 Vrms, 0 Adc
6.Electrical specifications at 25℃
7.Inductance measured at 0Adc on HP 4284A LCR Meter or equivalent
8.DCR measured on Chroma 16502 micro–ohmmeter or equivalent

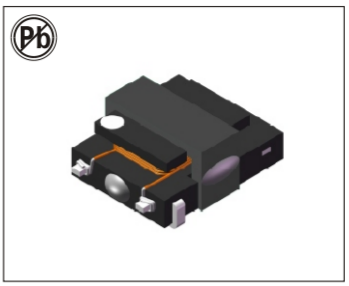
Specifications subject to change without notice

SHINHOM ELECTRONICS ENTERPRISE CO.,LTD. No.100YanTa Northern Road Zip:710054 Tel:0086–29–87851838 Fax:0086–29–87851840

SHINHOM SHINHOM SHINHOM

Current Sense Transformer

ACSTE4.6 SERIES



FEATURES:

- Very low DC resistance
- Different turns ratios
- Very small package
- 500Vrms,one minute isolation(hipot) between windings
- Sensed Current – primary rated for 20 Amps

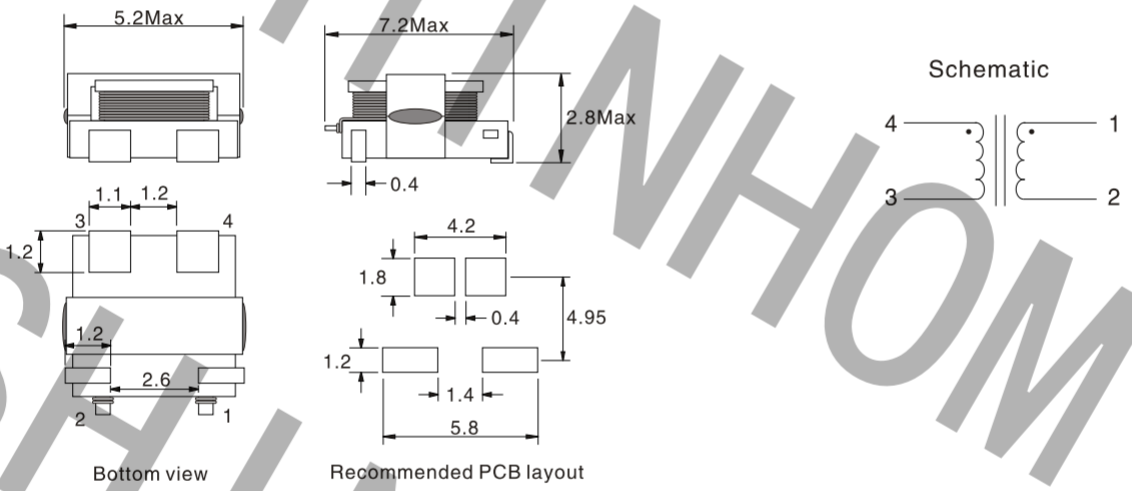
APPLICATIONS:

- Switching power supplies
- Feedback control
- Overload sensing
- Load drop/Shut down detection

ELECTRICAL SPECIFICATIONS:

Part No.	Turns ratio	Ls (uH, Min) 100KHz,0.1V	Rp (Ω,Max)	Rs (Ω,Max)	Sensed Current (A)
ACSTE4.6–200	1:20	53	0.0015	0.42	9
ACSTE4.6–500	1:50	333	0.0015	2.76	9
ACSTE4.6–700	1:70	652	0.0015	5.04	9
ACSTE4.6–101	1:100	1330	0.0015	10.68	9
ACSTE4.6–151	1:150	2993	0.0015	22.30	9

MECHANICAL: Unit:mm



NOTES

1.Primary current of 9 A causes less than 35℃ temperature rise from 25℃ ambient. Higher current causes a greater temperature rise
2.Operating temperature : –40℃ to 125℃
3.Storage temperature Component: –40℃ to +125℃
4.Inductance measured between secondary pins at 100kHz, 0.1 Vrms, 0 Adc
5.Measuring Frequency: @50KHz to 1MHz
6.Electrical specifications at 25℃
7.Inductance measured at 0Adc on HP 4284A LCR Meter or equivalent
8.DCR measured on Chroma 16502 micro–ohmmeter or equivalent

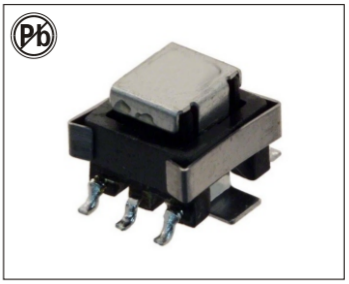
SHINHOM SHINHOM SHINHOM

Specifications subject to change without notice

SHINHOM ELECTRONICS ENTERPRISE CO.,LTD. No.100YanTa Northern Road Zip:710054 Tel:0086–29–87851838 Fax:0086–29–87851840

Current Sense Transformer

ACSTE5.0 SERIES



FEATURES:

- Very low DC resistance
- Different turns ratios
- Small package
- Other pinning on request

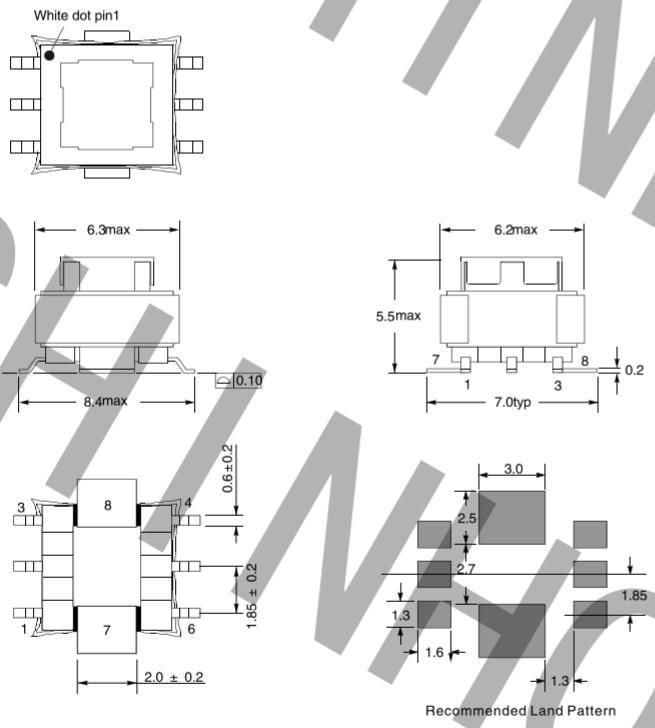
APPLICATIONS:

- Switching power supplies
- Feedback control
- Overload sensing
- Load drop/Shut down detection

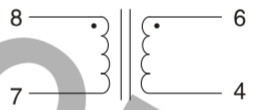
ELECTRICAL SPECIFICATIONS:

Part No.	Turns ratio	Ls (uH, Min) 100KHz,0.1V	Rp (Ω,Max)	Rs (Ω,Max)	Sensed Current (A)
ACSTE5.0–200	1:20	80	0.0007	0.4	10
ACSTE5.0–300	1:30	180	0.0007	0.87	10
ACSTE5.0–400	1:40	320	0.0007	1.14	10
ACSTE5.0–500	1:50	500	0.0007	1.85	10
ACSTE5.0–600	1:60	730	0.0007	2.3	10
ACSTE5.0–700	1:70	980	0.0007	4.75	10
ACSTE5.0–101	1:100	2000	0.0007	5.5	10
ACSTE5.0–121	1:125	3000	0.0007	11.5	10

MECHANICAL: Unit:mm



Schematic



NOTES

1.Operating temperature : –40℃ to 125℃
2.Storage temperature Component: –40℃ to +125℃
3.Inductance measured between secondary pins at 100kHz, 0.1 Vrms, 0 Adc
4.Electrical specifications at 25℃
5.Inductance measured at 0Adc on HP 4284A LCR Meter or equivalent
6.DCR measured on Chroma 16502 micro–ohmmeter or equivalent

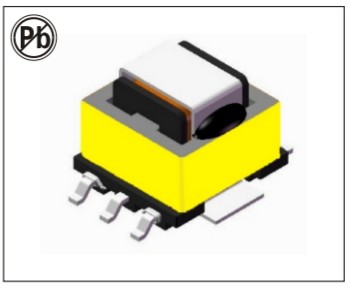
Specifications subject to change without notice

SHINHOM ELECTRONICS ENTERPRISE CO.,LTD. No.100YanTa Northern Road Zip:710054 Tel:0086–29–87851838 Fax:0086–29–87851840

SHINHOM SHINHOM SHINHOM

Current Sense Transformer

ACSTE8.3 SERIES



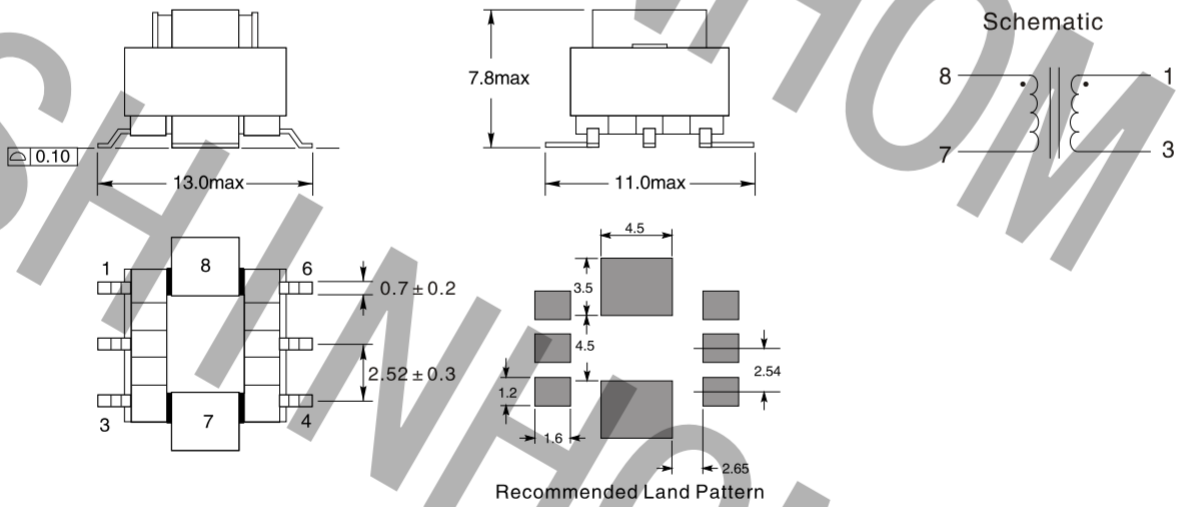
APPLICATIONS:

- Power supply for VTRs
- Small surface mount current sensors
- Sensed current up to 30A; Frequency range up to 1MHz
- Very low primary DC resistance
- 1.5KV AC/3mA / 1S isolation (hipot) between windings

ELECTRICAL SPECIFICATIONS:

Part No.	Turns ratio	Ls (mH, Min) 100KHz,0.1V	Rp (Ω,Max)	Rs (Ω,Max)	Sensed Current (A)
ACSTE8.3–200	1:20	0.22	0.0039	0.21	30
ACSTE8.3–300	1:30	0.5	0.0039	0.32	30
ACSTE8.3–400	1:40	0.88	0.0039	0.50	30
ACSTE8.3–500	1:50	1.4	0.0039	0.65	30
ACSTE8.3–600	1:60	2.0	0.0039	0.81	30
ACSTE8.3–700	1:70	2.7	0.0039	1.0	30
ACSTE8.3–800	1:80	3.5	0.0039	1.3	30
ACSTE8.3–101	1:100	5.6	0.0039	2.0	30
ACSTE8.3–121	1:125	8.7	0.0039	5.2	30
ACSTE8.3–151	1:150	12.6	0.0039	6.5	30
ACSTE8.3–201	1:200	22.0	0.0039	8.0	30

MECHANICAL: Unit:mm



NOTES

1.High Current – primary rated for 30 Amps
2.Operating temperature : –40℃ to 125℃
3.Storage temperature Component: –40℃ to +125℃
4.Inductance measured between secondary pins at 100kHz, 0.1 Vrms, 0 Adc
5.Operating Frequency Range up to 100KHz
6.Electrical specifications at 25℃
7.Inductance measured at 0Adc on HP 4284A LCR Meter or equivalent
8.DCR measured on Chroma 16502 micro–ohmmeter or equivalent

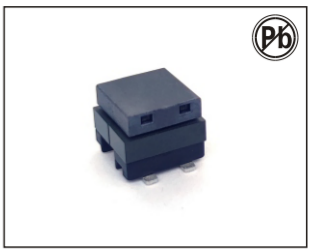
Specifications subject to change without notice

SHINHOM ELECTRONICS ENTERPRISE CO.,LTD. No.100YanTa Northern Road Zip:710054 Tel:0086–29–87851838 Fax:0086–29–87851840

SHINHOM SHINHOM SHINHOM

SMT CURRENT SENSE TRANSFORMERS

ACSTE11 SERIES



FEATURES:

- Height: 10mm Max
- Footprint: 12.5mm X 11.5mm Max
- Frequency range: 50KHz to 500KHz
- Primary rated current: 30A
- Operating temperagure: –40℃ to +125℃

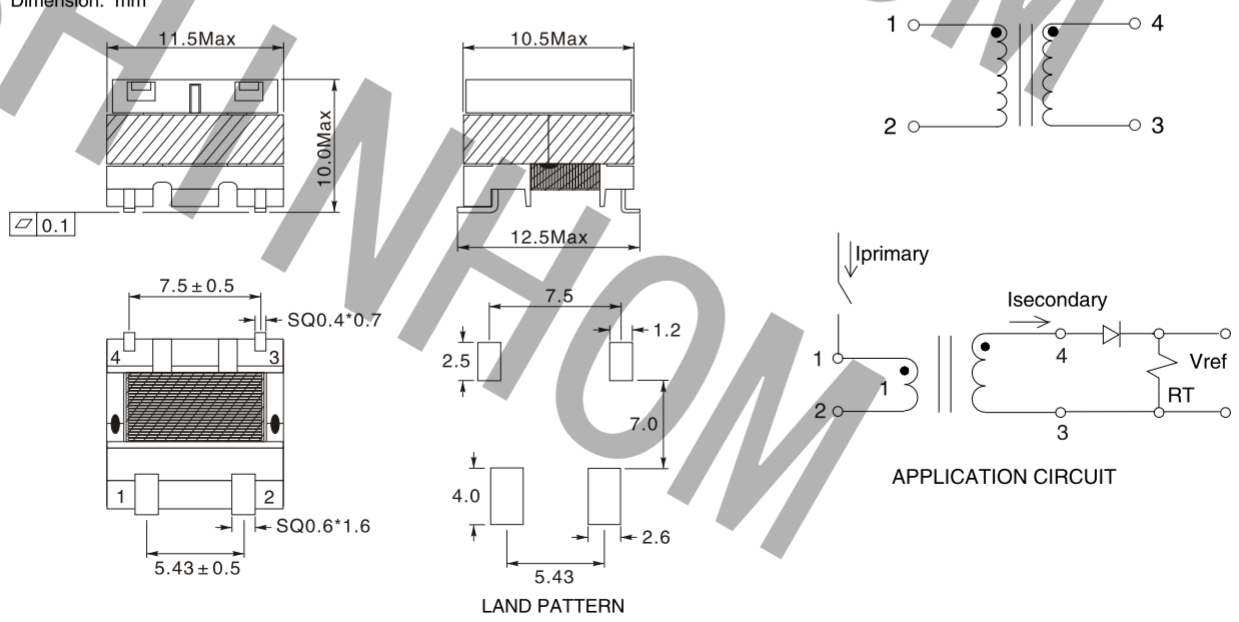
ELECTRICAL CHARACTERISTICS:

Part Number	Turns ratio	Sec. Inductance (mH) 10KHz,0.1V	DCR		Hi–Pot (Vrms)
			Pri (mΩ)Max	Sec (Ω)Max	
ACSTE11–200	1:20	0.27min.	0.8	0.36	500
ACSTE11–300	1:30	0.61min.	0.8	0.53	500
ACSTE11–400	1:40	1.08min.	0.8	1.12	500
ACSTE11–500	1:50	1.68min.	0.8	1.41	500
ACSTE11–600	1:60	2.43min.	0.8	1.70	500
ACSTE11–700	1:70	3.30min.	0.8	2.00	500
ACSTE11–800	1:80	4.32min.	0.8	2.30	500
ACSTE11–101	1:100	6.75min.	0.8	2.90	500
ACSTE11–121	1:125	10.5min.	0.8	3.70	500
ACSTE11–151	1:150	15.2min.	0.8	4.50	500
ACSTE11–201	1:200	27.0min.	0.8	8.10	500

1. The temperature of component (ambient temperature plus temper–aturerise) must be within the specified operating temperature range.
2. The maximum current rating is based upon temperature rise of the component and represents the DC current which will cause a typical temperature rise of 40℃ with no airflow when both one turn windings connected in parallel.

PHYSICAL CHARACTERISTICS & WINDING

Dimension: mm

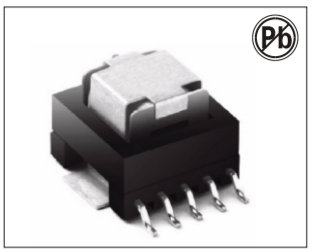


Unless otherwise specified, all tolerances are ± 0.25mm

SHINHOM SHINHOM SHINHOM

SMT CURRENT SENSE TRANSFORMERS

ACST12 35A SEIRES



FEATURES:

- Height: 10mm Max
- Footprint: 19.9mm X 15.0mm Max
- Frequency range: 50KHz to 100KHz
- Current rating: up to 35A
- Operating temperagure: –40℃ to +130℃

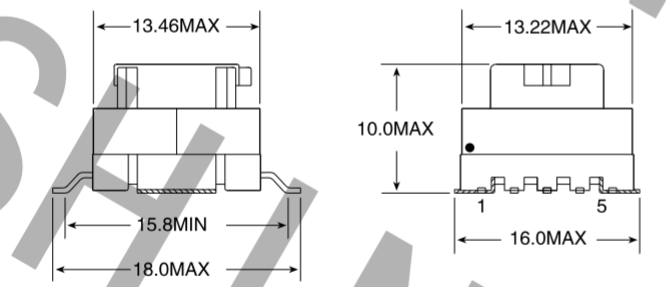
ELECTRICAL CHARACTERISTICS:

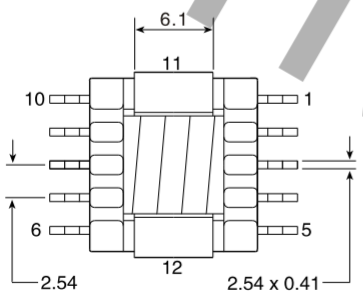
Part Number	Turns ratio	Sec. Inductance (mH) 10KHz,0.1V	DCR		Hi–Pot (Vrms)
			Pri (mΩ)Max	Sec (Ω)Max	
ACSTE12030	1:30	0.5min.	0.45	0.34	500
ACSTE12050	1:50	1.4min.	0.45	0.57	500
ACSTE12070	1:70	2.7min.	0.45	0.8	500
ACSTE12100	1:100	5.6min.	0.45	1.5	500
ACSTE12200	1:200	22.0min.	0.45	5.0	500
ACSTE12300	1:300	50.0min.	0.45	12.0	500

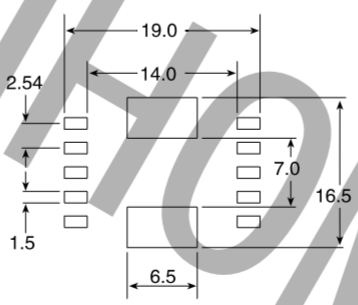
1.The temperature of component (ambient temperature plus temper–aturerise) must be within the specified operating temperature range.
2.The maximum current rating is based upon temperature rise of the component and represents the DC current which will cause a typical temperature rise of 40℃ with no airflow when both one turn windings connected in parallel.

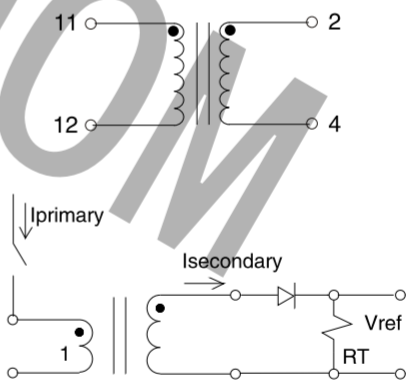
PHYSICAL CHARACTERISTICS & WINDING

Dimension: mm









APPLICATION CIRCUIT

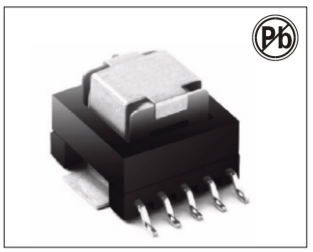
Weight..... 4.7g
Tray..... 100/tray
Tape&Reel..... 300/reel

Unless otherwise specified, all tolerances are ± 0.25mm

SHINHOM

SMT CURRENT SENSE TRANSFORMERS

ACST12 40A SEIRES



FEATURES:

- Height: 10mm Max
- Footprint: 19.9mm X 15.0mm Max
- Frequency range: 50KHz to 500KHz
- Current rating: up to 40A
- Operating temperagure: –40℃ to +130℃

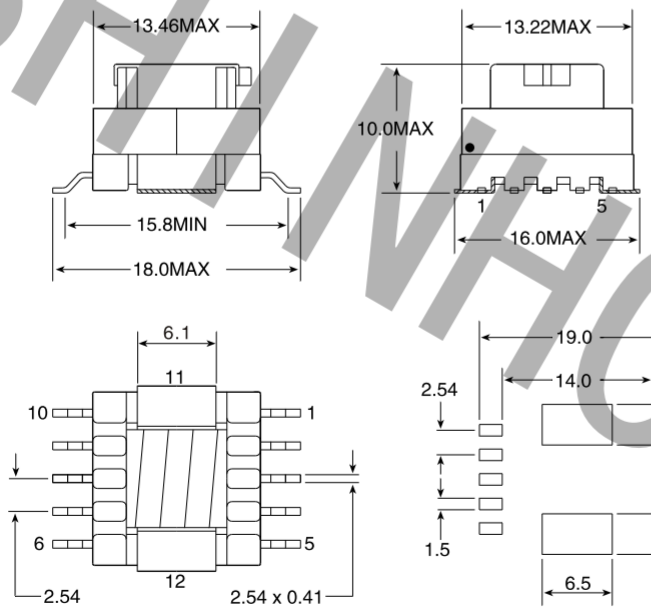
ELECTRICAL CHARACTERISTICS:

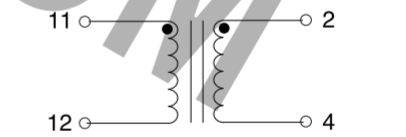
Part Number	Turns ratio	Sec. Inductance (mH) 10KHz,0.1V	DCR		Hi–Pot (Vrms)
			Pri (mΩ)Max	Sec (Ω)Max	
ACSTE12–200	1:20	0.34min.	0.36	0.18	500
ACSTE12–300	1:30	0.76min.	0.36	0.265	500
ACSTE12–400	1:40	1.36min.	0.36	0.56	500
ACSTE12–500	1:50	2.12min.	0.36	0.705	500
ACSTE12–600	1:60	3.06min.	0.36	0.85	500
ACSTE12–700	1:70	4.16min.	0.36	1.0	500
ACSTE12–800	1:80	5.44min.	0.36	1.15	500
ACSTE12–101	1:100	8.50min.	0.36	1.45	500
ACSTE12–121	1:125	13.3min.	0.36	1.85	500
ACSTE12–151	1:150	19.2min.	0.36	2.25	500
ACSTE12–201	1:200	34.0min.	0.36	4.06	500

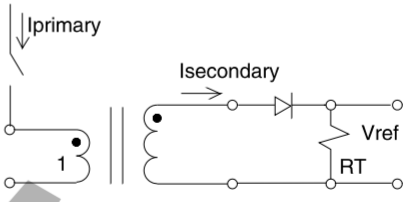
1. The temperature of component (ambient temperature plus temper–aturerise) must be within the specified operating temperature range.
2. The maximum current rating is based upon temperature rise of the component and represents the DC current which will cause a typical temperature rise of 40℃ with no airflow when both one turn windings connected in parallel.

PHYSICAL CHARACTERISTICS & WINDING

Dimension: mm







APPLICATION CIRCUIT

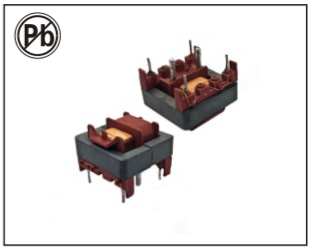
Weight..... 4.7g
Tray..... 100/tray
Tape&Reel..... 300/reel

Unless otherwise specified, all tolerances are ± 0.25mm

SHINHOM

PCB MOUNT CURRENT SENSE TRANSFORMERS

ACSTE20 SERIES



FEATURES:

- Very low DC resistance
- Different turns ratios
- Very small package
- Operating frequency 10KHz to 1MHz
- 1500Vrms or 3000Vrms isolation voltage between windings
- Sensed Current – primary rated for 50 Amps

APPLICATIONS:

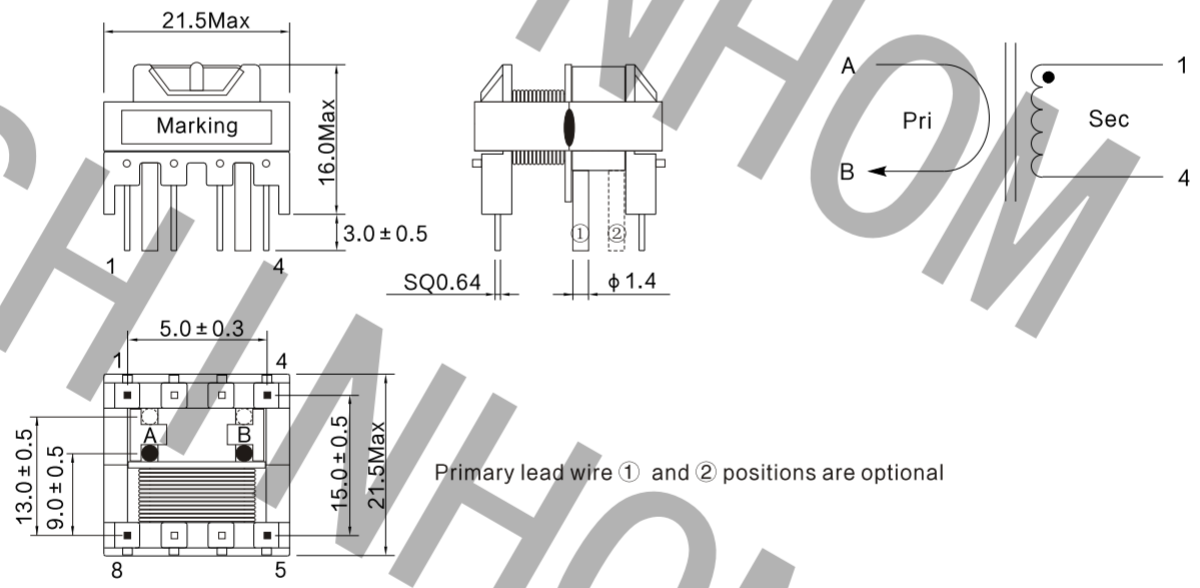
- Switching power supplies
- Feedback control
- Overload sensing
- Load drop/Shut down detection

ELECTRICAL CHARACTERISTICS: @25℃

Part Number	Turns ratio	Sec. Inductance (mH) ± 30% 1.0KHz,1V	DCR Max		Rated input current (A) Max
			Pri(mΩ)	Sec(Ω)	
ACSTE20-500	1:50	5.0	1.0	1.0	50
ACSTE20-101	1:100	20.0	1.0	2.0	50
ACSTE20-201	1:200	80.0	1.0	4.3	50
ACSTE20-301	1:300	180.0	1.0	7.5	50
ACSTE20-501	1:500	500.0	1.0	15.0	50
ACSTE20-102	1:1000	2000.0	1.0	35.0	50

PHYSICAL CHARACTERISTICS & WINDING

Dimension: mm



NOTES

1.Operating temperature : −40℃ to 125℃
2.Storage temperature Component: −40℃ to +85℃
3.Inductance measured between secondary pins at 1.0kHz, 1Vrms, 0 Adc
4.Inductance measured at 0Adc on HP 4284A LCR Meter or equivalent
5.DCR measured on Chroma 16502 micro-ohmmeter or equivalent

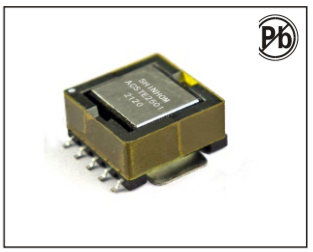
SHINHOM SHINHOM SHINHOM

Specifications subject to change without notice

SHINHOM ELECTRONICS ENTERPRISE CO.,LTD. No.8,YanTa Northern Road Zip:710054 Tel:0086-29-87851838 Fax:0086-29-87851840

SMT CURRENT SENSE TRANSFORMERS

ACSTE25 SERIES



FEATURES:

- Very low DC resistance
- Different turns ratios
- Very small package
- 1500Vrms isolation voltage between windings
- Sensed Current – primary rated for 50 Amps

APPLICATIONS:

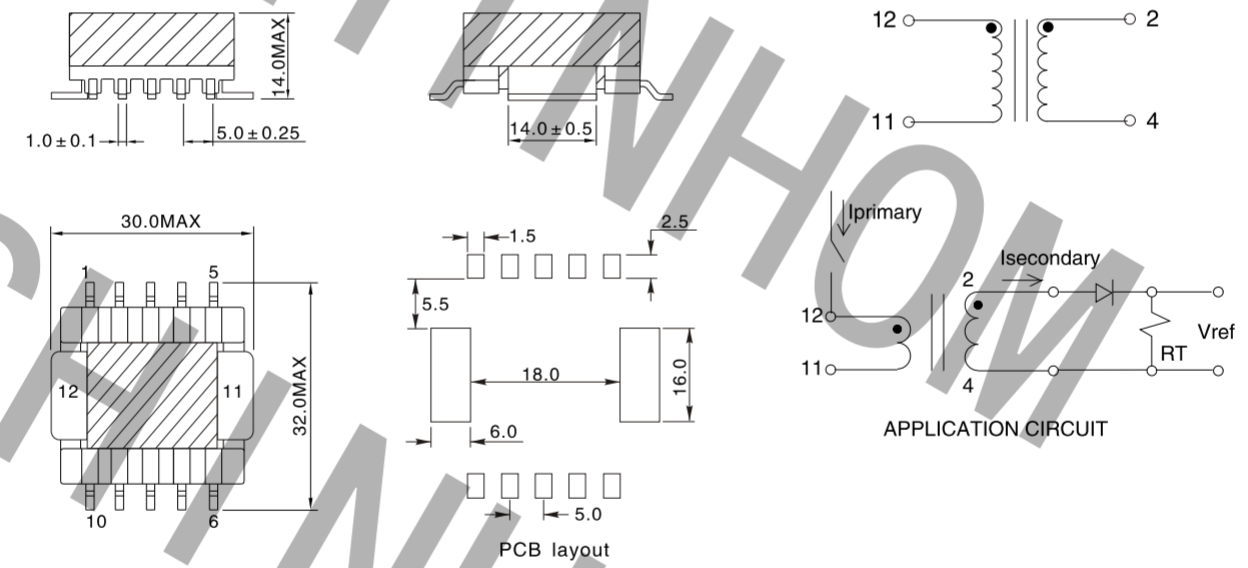
- Switching power supplies
- Feedback control
- Overload sensing
- Load drop/Shut down detection

ELECTRICAL CHARACTERISTICS: @25℃

Part Number	Turns ratio	Sec. Inductance (mH) 100KHz,0.1V	DCR (mΩ)Max		Rated input current (A) Max
			Pri	Sec	
ACSTE2501	1:100	15.0 min.	0.2	1200	50
ACSTE2502	1:150	34.0 min.	0.2	1600	50
ACSTE2503	1:200	60.0 min.	0.2	2000	50

PHYSICAL CHARACTERISTICS & WINDING

Dimension: mm



NOTES

1.Primary current of 50 A causes 40℃ temperature rise from 25℃ ambient. Higher current causes a greater temperature rise
2.Operating temperature : –55℃ to 125℃
3.Storage temperature Component: –40℃ to +105℃
4.Tape and reel packaging: –40℃ to +80℃
5.Moisture sensitivity level(MSL) 1 (Unlimited floor life at <30deg /85% relative humidity)
6.Inductance measured between secondary pins at 100kHz, 0.1 Vrms, 0 Adc
7.Frequency range: 50KHz to 500KHz
8.Inductance measured at 0Adc on HP 4284A LCR Meter or equivalent
9.DCR measured on Chroma 16502 micro–ohmmeter or equivalent

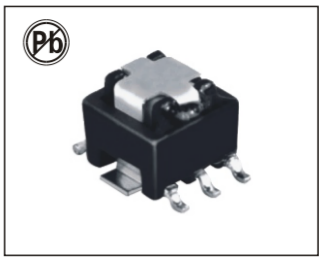
SHINHOM SHINHOM SHINHOM

Specifications subject to change without notice

SHINHOM ELECTRONICS ENTERPRISE CO.,LTD. No.8,YanTa Northern Road Zip:710054 Tel:0086–29–87851838 Fax:0086–29–87851840

SMD CURRENT SENSER TRANSFORMERS

ACSTE50 Series



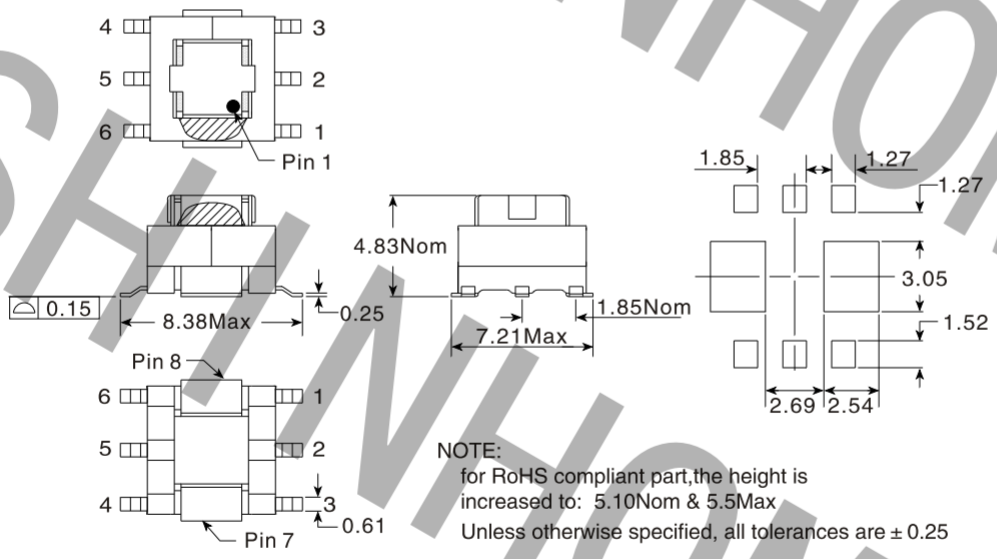
FEATURES:

- Working Frequency range:50KHz~1MHz
- Testing Frequency: 10 KHz 0.1Vrms
- Hipot:2000VAC,Primary to Secondary
- Maximum Sensing Current: 20A
- All seconday measurements are in pins 1–3
- Soldering menthods: Wave, Reflow

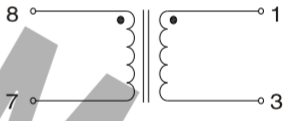
Electrical Specifications @ 25℃ — Operating Temperature –40℃ to +130℃

Part No.	Turns Ratio	Current[2] Rating (A)	Secondary inductance (mH)Min	DCR(mΩ Max)		Hi–Pot (Vrms)
				Primary (8–7)	Secondary (1–3)	
ACSTE5020	1:20	20	0.08	0.75	550	500
ACSTE5030	1:30	20	0.18	0.75	870	500
ACSTE5040	1:40	20	0.32	0.75	1140	500
ACSTE5050	1:50	20	0.50	0.75	1500	500
ACSTE5060	1:60	20	0.72	0.75	2250	500
ACSTE5070	1:70	20	0.98	0.75	4750	500
ACSTE5100	1:100	20	2.00	0.75	5500	500
ACSTE5125	1:125	20	3.00	0.75	6500	500

MECHANICAL:



SCHEMATIC:



NOTE:
for RoHS compliant part,the height is increased to: 5.10Nom & 5.5Max
Unless otherwise specified, all tolerances are ± 0.25

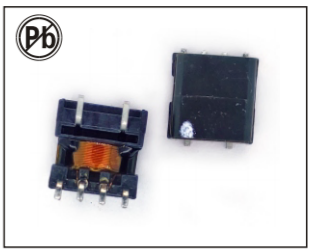
NOTES:

1. The temperature of component (ambient temperature plus temper–aturerise) must be within the specified operating temperature range.
2. The maximum current rating is based upon temperature rise of the component and represents the DC current which will cause a typical temperature rise of 40℃ with no airflow when both one turn windings connected in parallel.
3. To calculate value of terminating resistor (Rt) use the following formula: Rt (Ω) =Vref* N / (Ipeak_primary)
4. The peak flux density of the device must remain below 2000 Gauss. Tocalculate the peak flux density for uni–polar current use following formula: Bpk = 37.59 * Vref* (Duty_Cycle_Max) * 105/ (N * Freq_kHz)* for bi–polar current applications divide Bpk (as calculated above) by 2

SHINHOM SHINHOM SHINHOM

SMT CURRENT SENSE TRANSFORMERS

ACSTEP7 SERIES



FEATURES:

- Very low DC resistance
- Different turns ratios
- Small SMD package
- RoHS compatible
- Insulation distances in compliance with IEC 60664

APPLCATIONS:

- Switch–mode power supplies
- Feedback control
- Overload sensing
- Load drop/shut–down detection

ELECTRICAL CHARACTERISTICS:

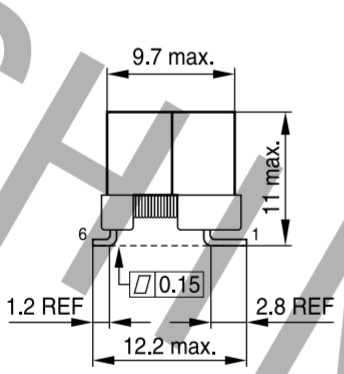
Part Number	Turns	Inductance (mH) Min	Voltage–time product +120℃ (V.us) (1)	Cp (pF)	R(1–2) (mΩ) Max	R(4–5) (Ω) Max	Rt (2) (Ω) Typ.
ACSTEP7–50	50	1.7	116	4	1.9	2.1	2.5
ACSTEP7–70	70	3.0	163	4	1.9	2.9	3.5
ACSTEP7–100	100	7.0	233	4	1.9	5.0	5.0
ACSTEP7–125	125	11.0	291	4	1.9	5.3	6.0

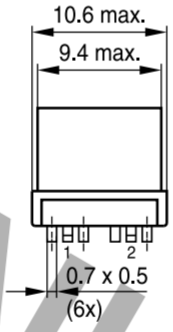
Notes:

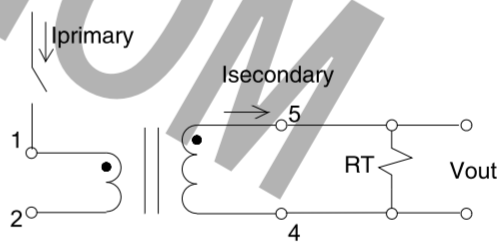
(1)The maximum volt–second rating limits the peak flux density to 220 mT when used in a unipolar drive application.For bipolar drive applications, a maximum volt–sec of two times is acceptable.

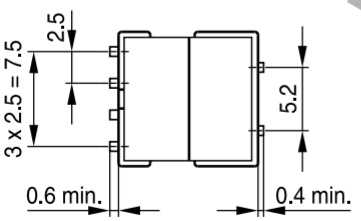
(2)Burden Resistor value is calculated by taking Vout as 1 V reference and with maximum input current (20 A)flowing through the primary winding of the current sense transformer

PHYSICAL CHARACTERISTICS & WINDING

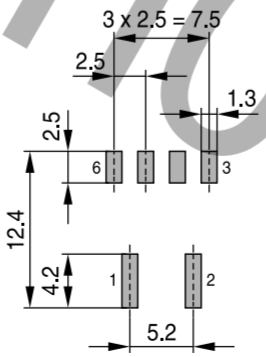








Recommended PCB layout
(Top view)

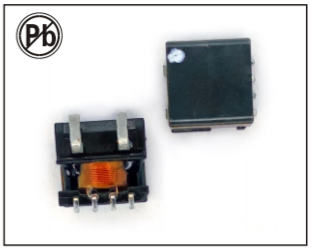


- Typical frequency range: 50~250KHz
- Inductance test frequency: 20KHz,0.01V
- High voltage test: 2400VAC,50Hz,1s (Coil to Coil)
- The max primary current of 20A causes approx +40℃ temperature rise
- Couple capacitance measured at 10kHz, 1V, +25℃
- Operating temperature range –40℃ to +150℃

SHINHOM SHINHOM SHINHOM

SMT CURRENT SENSE TRANSFORMERS

ACSTEP11 SERIES



FEATURES:

- Very low DC resistance
- Different turns ratios
- Small SMD package
- RoHS compatible
- Qualified to AEC–Q200
- Insulation distances in compliance with IEC61558–2–16

APPLCATIONS:

- Switch–mode power supplies
- Feedback control
- Overload sensing
- Load drop/shut–down detection
- Switching current detection in on–board DC/DC converter and chargers

ELECTRICAL CHARACTERISTICS:

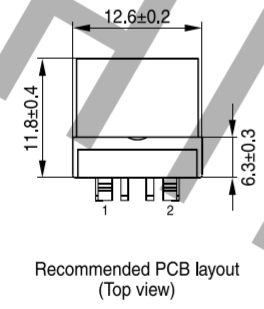
Part Number	Turns ratio	Inductance (mH) 20KHz,0.01V	Voltage–time product +120℃ (V.us) (1)	Cp (pF) 10KHz,1V	R(1–2) (mΩ) Max	R(4–5) (Ω) Max	Rt (2) (Ω) Typ.
ACSTEP11–50	1:50	1.2 Min	117	4	0.5	1.5	1.6
ACSTEP11–70	1:70	2.8 Min	164	4	0.5	2.1	2.3
ACSTEP11–100	1:100	6.5 Min	235	4	0.5	3.1	3.3
ACSTEP11–125	1:125	7.5 Min	294	4	0.5	4.1	4.1
ACSTEP11–180	1:180	18.0 Min	423	4	0.5	7.4	6.0
Small air gap ensures tighter tolerance of inductance for better sensing accuracy							
ACSTEP11–100A	1:100	2.5 ± 12%	235	4	0.5	3.1	3.3

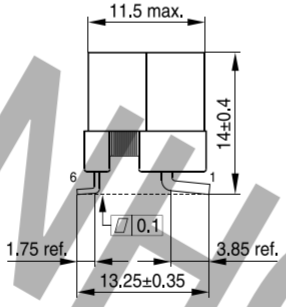
Notes:

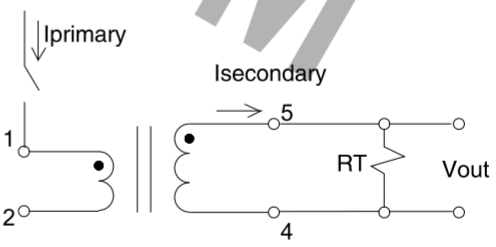
(1)The maximum volt–second rating limits the peak flux density to 220 mT when used in an unipolar drive application. For bipolar drive applications, a maximum volt–sec of two times is acceptable.

(2)Burden Resistor value is calculated by taking Vout as 1 V reference and with maximum input current flowing through the input (30 A).

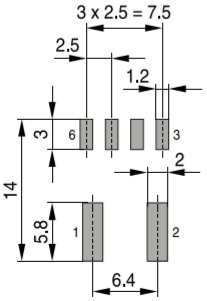
PHYSICAL CHARACTERISTICS & WINDING

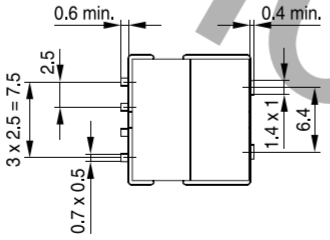






Recommended PCB layout
(Top view)





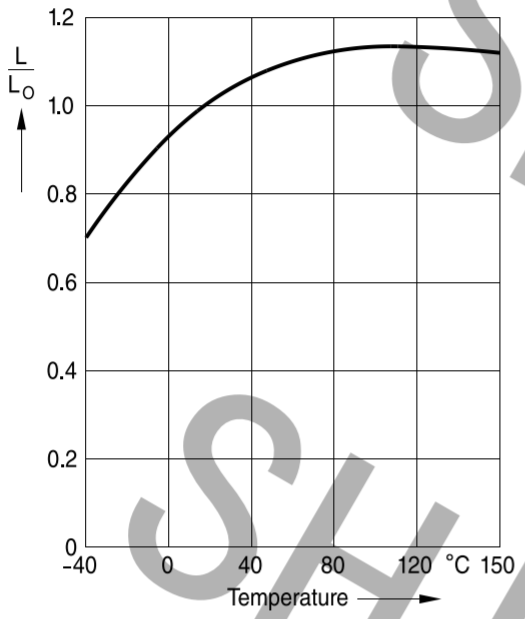
- Typical frequency range: 50~400KHz
- Inductance test frequency: 20KHz,0.01V
- High voltage test: 2500VAC,50Hz,1s (Pri to Sec, Core)
- The primary current of 30A causes approx +40℃ temperature rise
- Couple capacitance measured at 10kHz, 1V, +25℃
- Operating temperature range –40℃ to +150℃

SHINHOM

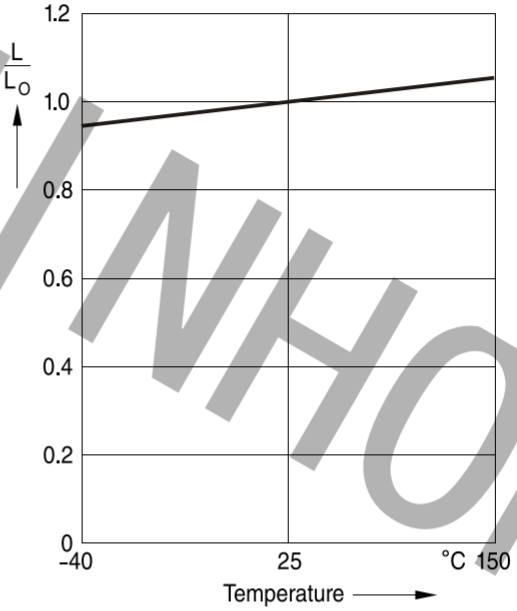
SHINHOM ELECTRONICS ENTERPRISE CO.,LTD. No.100YanTa Northern Road Zip:710054 Tel:0086–29–87851838 Fax:0086–29–87851840

INDUCTANCE L AS A FUNCTION OF TEMPERATURE TYPICAL CURVES

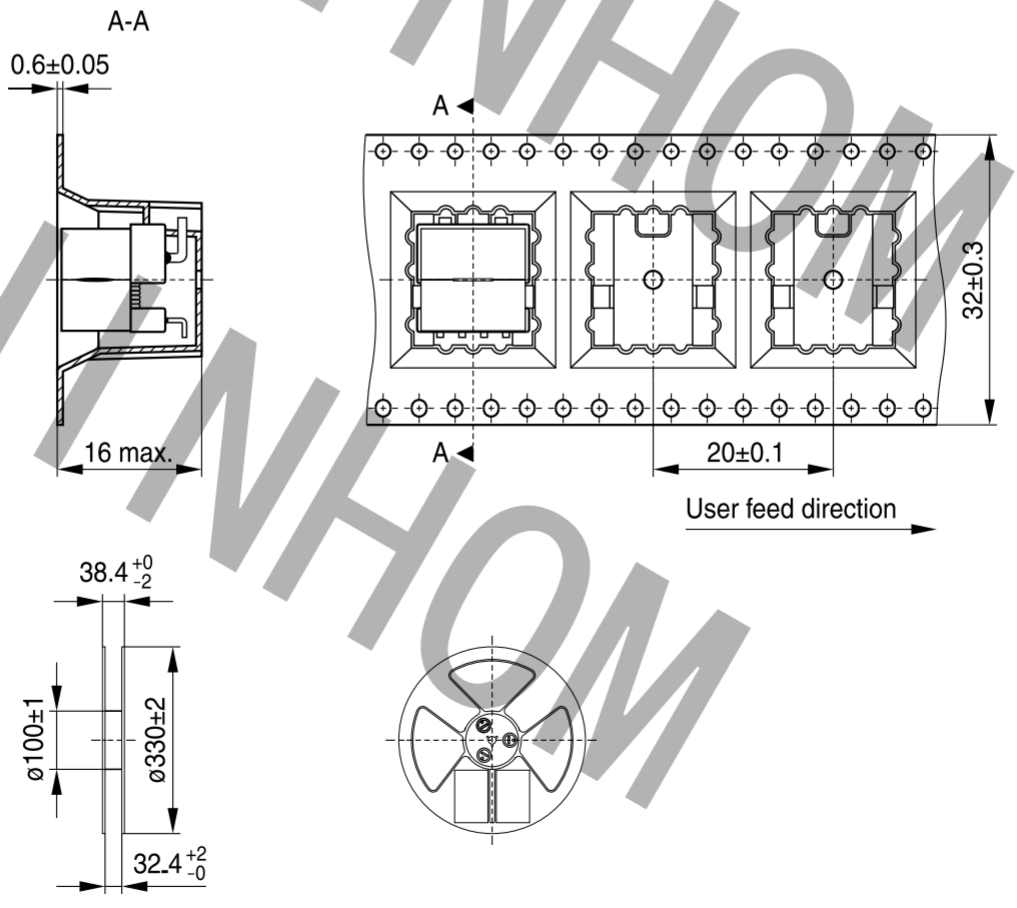
Parts without air gap according N(4–5) L/Lo vs. Temperature



Parts with air gap according N(4–5) L/Lo vs. Temperature



TAPING AND PACKING



SHINHOM SHINHOM SHINHOM

Current Sense Transformer



CT02 SERIES

FEATURES:

- Smallest Footprint
- Hi–Pot tested at 1500VAC
- Current ratings to18A
- Patent pending

APPLICATION:

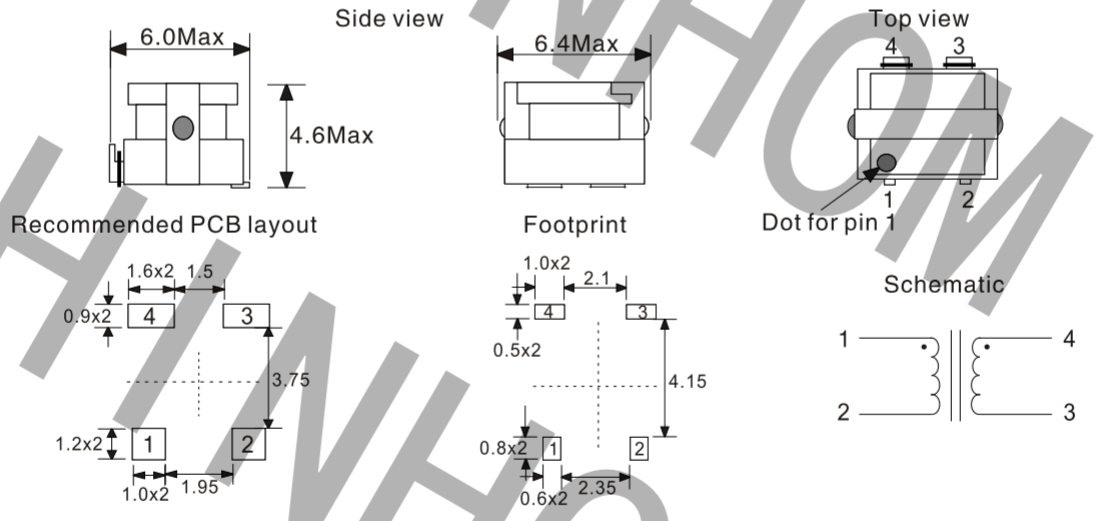
- DC/DC Converters
- DC/DC Converters
- POL Converters

ELECTRICAL SPECIFICATIONS:

Part No.	Turns ratio	E–T Product (V–us)	Ls (mH, Min)	Rs (Ω,Max)	Current rating (A)	Hi–Pot (Vac)
CT02–050	1:50	4.0	0.44	1.25	15.0	1500
CT02–100	1:100	8.0	1.8	4.8	18.0	1500
CT02–150	1:150	12.0	4.0	15.0	18.0	1500
CT02–200	1:200	16.0	7.1	25.0	18.0	1500
CT02–250	1:250	20.0	11.1	37.2	18.0	1500

Note:1. K= ± 10%,M= ± 20%

MECHANICAL: Unit:mm



NOTES

1.Tested at 10kHz, 0.1Vrms.
2.Electrical specifications at 25℃
3.Operating range:–40 ℃ to +130 ℃.This is a combination of ambient plus temperature rise.
4.Meets UL94V–0.
5.DC current through primary, plus turns–ratio–divided DC current throughsecondary winding, to cause a 40℃ temperature rise at 25℃ ambient.
6.All products are RoHS–compliant

SHINHOM SHINHOM SHINHOM

Specifications subject to change without notice

SMD CURRENT TRANSFORMER

ACSTER11.5 Series



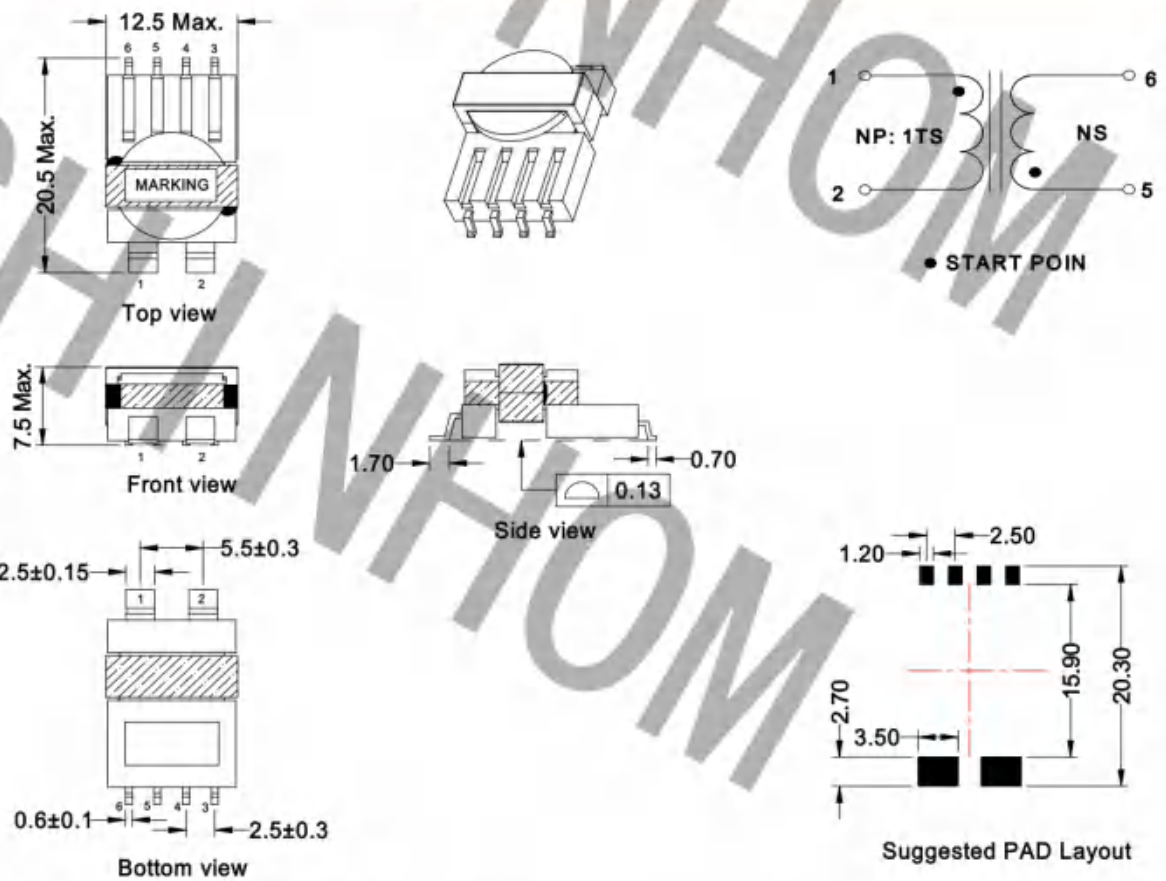
Features

- Very low DC resistance.
- Sensed current up to 50 Amps.
- Small SMD mount.
- Insulation: Reinforced, 10mm creepage and clearance
- Frequency range 20KHz~1MHz
- Voltage range up 1000Vpk
- High isolation voltage 5000Vdc,6sec
- Operating temperature range -40 ℃ to 125 ℃.
- RoHS Compliant

ELECTRICAL CHARACTERISTICS:

Part Number	Secondary Inductance (mH) Min 100KHz,0.1V	Current Rating (A) Max	Turns Ratio	DCR (mΩ) Max Primary 1-2	DCR (mΩ) Max Secondary 5-6	Hipot (V_{DC})
ACSTER11.5-030	0.3	50	1:30	0.56	240	5000
ACSTER11.5-050	1.1	50	1:50	0.56	600	5000
ACSTER11.5-100	4.5	50	1:100	0.56	2600	5000
ACSTER11.5-125	7.0	50	1:125	0.56	4200	5000
ACSTER11.5-150	10.0	50	1:150	0.56	6000	5000
ACSTER11.5-200	17.5	50	1:200	0.56	12000	5000

PHYSICAL CHARACTERISTICS



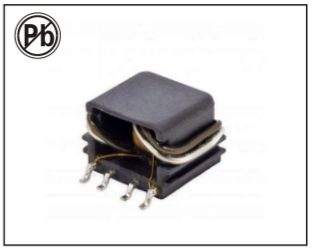
Note:All specifications subject to change without notice.

SHINHOM ELECTRONICS ENTERPRISE CO.,LTD. No.100YanTa Northern Road Zip:710054 Tel:0086-29-87851838 Fax:0086-29-87851840

SHINHOM

PCB MOUNT CURRENT SENSE TRANSFORMERS

ACSTE13 SERIES



FEATURES:

- Inductance: 2mHto10mH
- Rated current:10A
- Secondary resistance:1620mΩto 2100mΩ
- Frequency range from 20 kHz to 500 kHz
- Compliant with AEC-Q200

APPLICATIONS:

- Direct current, such as battery monitoring
- Low frequency sine applications, including 50Hz/60Hzelectrical transmission, distribution, and storage systems
- High frequency, including switch mode power supply circuits with operating frequency>40kHz

ELECTRICAL CHARACTERISTICS: @25℃

Part Number	Turns ratio	Sec. Inductance (mH) Min 100KHz,10.V	DCR Max		Current range (A)	Hi-Pot (Vdc)
			Pri(mΩ)	Sec(Ω)		
ACSTE13-065	1:65	2.0	3.0	1620	10	4400
ACSTE13-100	1:100	10.0	3.0	2100	10	4400

Note:

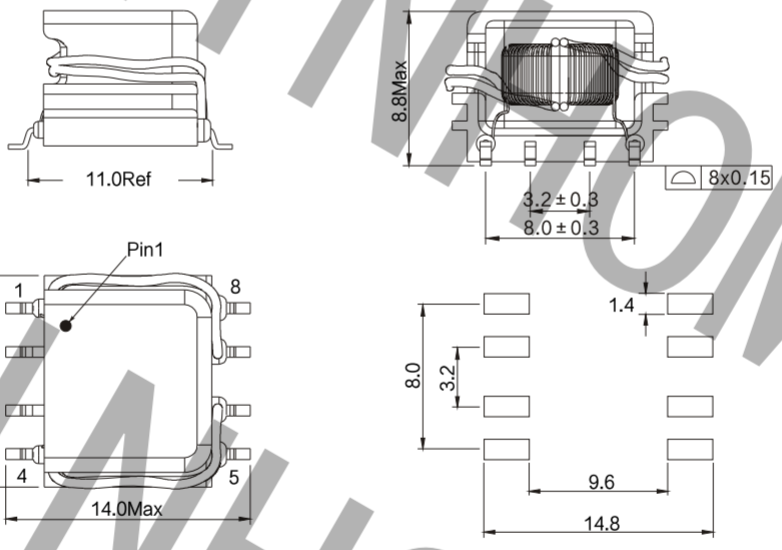
1.Inductance measured between secondary pins at 100 kHz, 0.1 Vrms, 0 Adc.

2.For specific questions regarding frequency range, please contact our selesers. windings connected in parall

3.The maximum current rating is based upon temperature rise of the component and represents theDC current which will cause a typpical temperature rise of 40 ℃ with no airflow when both one turn

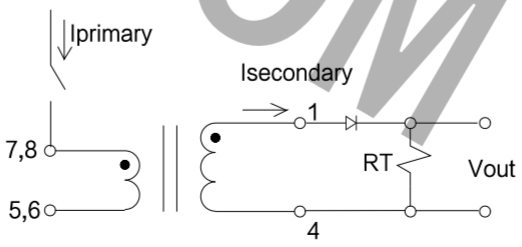
PHYSICAL CHARACTERISTICS & WINDING

Dimension: mm



SUGGESTED LAND PATTERN

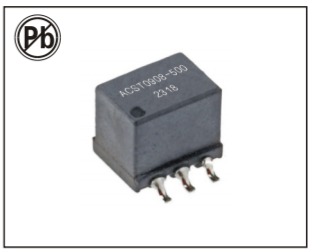
APPLICATION CIRCUIT



SHINHOM SHINHOM SHINHOM

PCB MOUNT CURRENT SENSE TRANSFORMERS

ACST0908 SERIES



FEATURES:

- RoHS compliant
- Primary current rating 15A
- 50, 100 and 200 turn variants
- Frequency range 50kHz to500kHz
- Surface mount
- Compact package
- UL94 V-0 package materials

APPLICATIONS:

- Aircraft equipment
- Aerospace equipment
- Undersea equipment
- Power plant control equipment
- Medical equipment
- Transportation equipment (automobiles, trains, ships, etc.)
- Traffic signal equipment
- Disaster prevention / crime prevention equipment
- Data Processing equipment

ELECTRICAL CHARACTERISTICS: @25℃

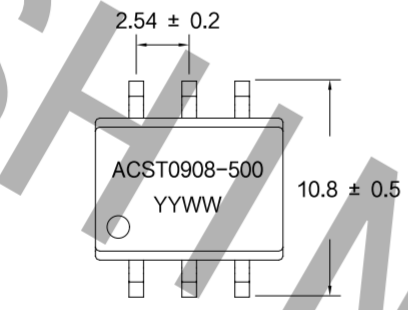
Part Number	Turns ratio	Sec. Inductance (mH) Min 10KHz,0.1V	DCR Max		Isolation voltage(kV) Pri to Sec	Terminating Resistance to produce 1Vout/1Ain(Ω)
			Pri(mΩ)	Sec(Ω)		
ACST0908-500	1:1:50	3.8	7.0	0.5	1.2	50
ACST0908-101	1:1:100	14.8	7.0	3.2	1.2	100
ACST0908-201	1:1:200	60.0	7.0	6.6	1.2	200

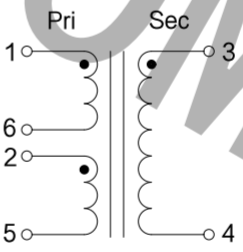
NOTE:

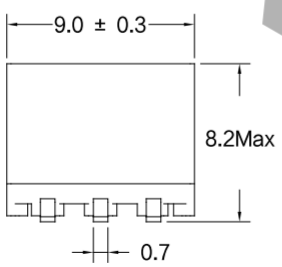
1. All specifications typical atTA=25 ℃
2. Flash tested for 1 second.
3. Primary windings connected in parallel.
4. The ACST0908 series of current sense transformers are designed to monitor AC currents. The transformers can be used for high frequency current sensing in applications such as switched-mode power supplies, motor control, and electronic lighting ballasts.
5. Operating free air temperature range: -40 ℃ to 150 ℃
6. Storage temperature range-40 ℃ to 125 ℃

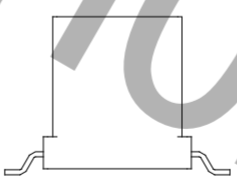
PHYSICAL CHARACTERISTICS & WINDING

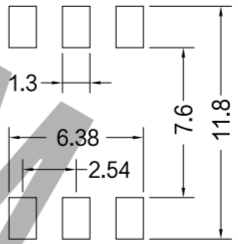
Dimension: mm











SUGGESTED LAND PATTERN

SHINHOM