

Current Sense Transformers

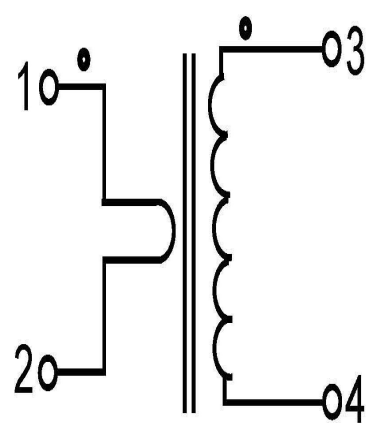
SURFACE MOUNT CURRENT SENSE TRANSFORMERS:

PICO ELECTRONICS, Inc. has developed a new series of Current Sense Transformers. This new 38000 Series of transformers come in three different sizes in both thru hole and surface mount packages.

The CURRENT SENSE TRANSFORMER is used for monitoring and controlling circuits as well as detecting changing loads in Power Supplies. These devices are used in a variety of applications which includes automotive, industrial, medical, and aerospace applications. Because of the advantages of sensing the current while maintaining the electrical isolation, these devices are suitable in designing power supplies. Compared to different techniques or current measurement, the Current Sense Transformers offer higher efficiency, accuracy and are less sensitive to temperature shifts.

Specifications

- **MIL-PRF-27:**ALL UNITS MANUFACTURED TO MIL-PRF-27, Grade 5, Class S
- **OPERATING TEMPERATURE:** -55° C to +130° C
- **DIELECTRIC WITHSTANDING VOLTAGE:** 500Vac
- **INSULATION RESISTANCE:** 10K MegaOhms at 500 V DC
- **FREQUENCY RANGE:**50KHz to 500 KHz
- **CURRENT RATING:** 5 to 20 Amps
- **TURNS RATIO:** from 1:30 up to 1:100
- **Terminals:** Meets solderability per MIL-STD-202, Method 208.



Larger size schematic ^[1]

Schematic for Current Sense Transformer

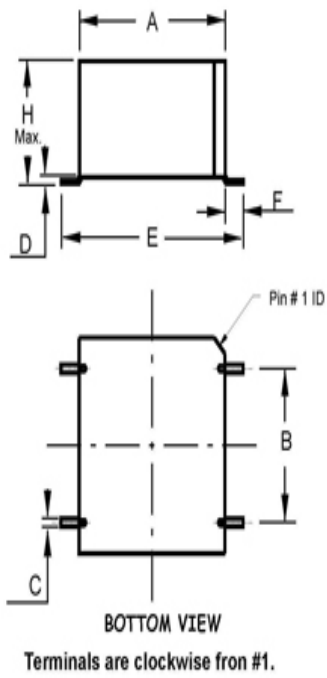
SURFACE MOUNT PART NUMBER	SECONDARY INDUCTANCE (Minimum) (mH)	PRIMARY CURRENT (Amps)	TURNS RATIO	SECONDARY DC RESISTANCE (Ohms)	SIZE	PRICE (1-9) (USD)
38100SM	0.49	5	1:30	0.137	1	58.12
38105SM	0.87	5	1:40	0.280	1	58.12
38110SM	1.36	5	1:50	0.440	1	58.12
38115SM	1.95	5	1:60	0.670	1	58.12
38120SM	2.66	5	1:70	1.230	1	58.12
38125SM	5.40	5	1:100	3.550	1	58.12
38200SM	1.62	15	1:30	0.027	2	58.12
38205SM	2.90	15	1:40	0.150	2	58.12
38210SM	4.50	15	1:50	0.300	2	58.12
38215SM	6.50	15	1:60	0.440	2	58.12
38220SM	8.82	15	1:70	0.830	2	58.12
38225SM	18.0	15	1:100	2.150	2	58.12

38300SM	2.40	20	1:30	0.055	3	63.91
38305SM	4.27	20	1:40	0.082	3	63.91
38310SM	6.67	20	1:50	0.160	3	63.91
38315SM	9.60	20	1:60	0.300	3	63.91
38320SM	13.07	20	1:70	0.440	3	63.91
38325SM	26.66	20	1:100	1.230	3	63.91

**Discount Prices:

- 1-9 Net;
- 10-24 less 10%;
- 25-49 less 16%;
- 50-99 less 23%;
- 100-499 less 30%

Surface Mount Mechanical Drawing



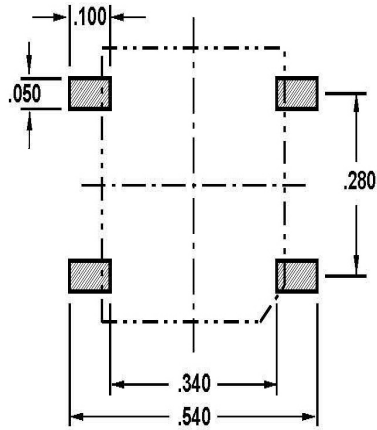
Larger size schematic [2]

SURFACE MOUNT DIMENSIONS

SIZE	HEIGHT	A	B	C	D	E	F
1	0.180 (4.57)	0.380 (9.65)	0.280 (7.11)	0.025 (0.64)	0.015 (0.38)	0.500 (12.7)	0.060 (1.52)
2	0.270 (6.86)	0.550 (13.97)	0.400 (10.16)	0.030 (0.76)	0.015 (0.38)	0.670 (17.02)	0.060 (1.52)
3	0.350 (8.9)	0.650 (16.51)	0.500 (12.7)	0.030 (0.76)	0.020 (0.51)	0.770 (19.56)	0.060 (1.52)

Dimensions are in inches. () = millimeters

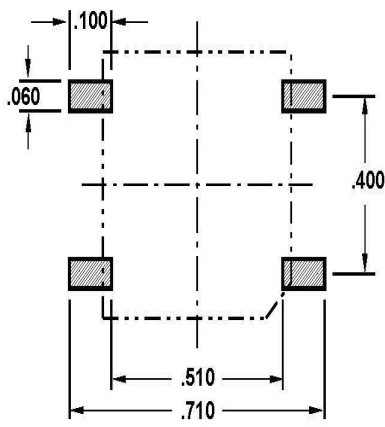
RECOMMENDED LAND PATTERN



Larger size schematic [3]

SIZE 1

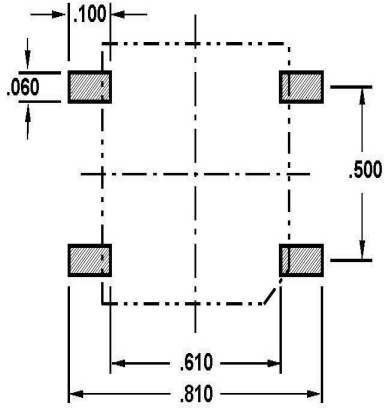
RECOMMENDED LAND PATTERN



Larger size schematic [4]

SIZE 2

RECOMMENDED LAND PATTERN



Larger size schematic [5]

SIZE 3

Ordering Instructions:

- No minimum.
Net 30 days F.O.B. Pelham, NY

Delivery--stock to one week for sample orders.

For immediate engineering assistance or to place an order:

Call Toll Free: 800-431-1064

PICO Electronics, Inc.

143 Sparks Ave. Pelham, NY 10803-1810

Tel: 914-738-1400 or Fax: 914-738-8225

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