

## SCT 4.2 –Series Current Sense Transformers

AEC-Q200 Grade 1 qualified (–40°C to +125°C ambient)

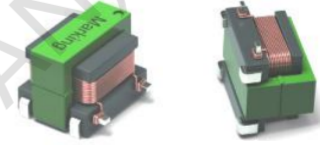
Small surface mount current sensors

Sensed current up to 20 A; Frequency range up to 1 MHz Very

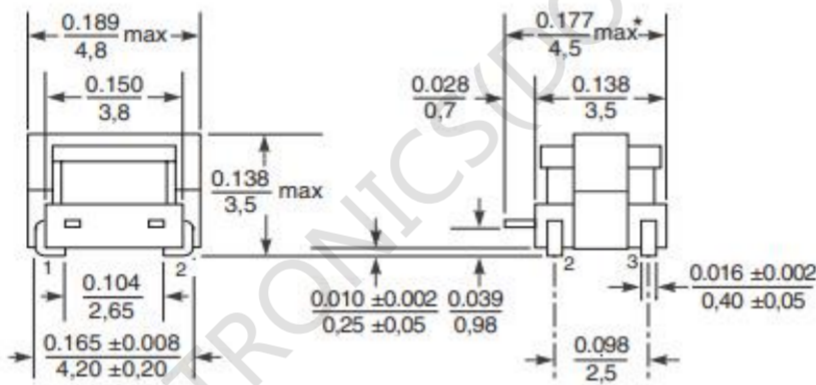
low primary DC resistance

500 Vrms, one minute isolation (hipot) between windings

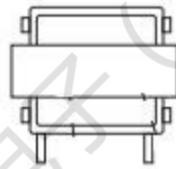
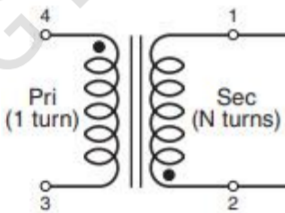
Can also be used in 48 V vehicle electrical systems



### 1. Dimensions:mm

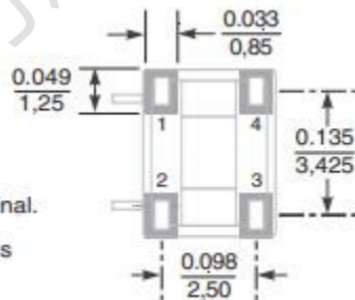


### 2.Schematic:



### 3. Recommended Land Pattern

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$



\* Includes solder applied to side terminal.

Unless otherwise specified, tolerances are ±0.004 in / 0.10 mm.

## 4. ELECTRIC CHARACTERISTICS

**Electrical Specifications @ 25°C — Operating Temperature -40°C to +125°C**

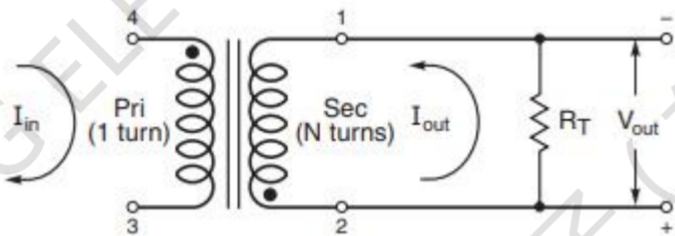
Part Number	Turns Ratio	Current Rating <sub>2 NP</sub> (A)	Secondary Inductance (uH MIN)	DCR ( $\Omega$ typ)		Hipot (V <sub>RMS</sub> )
				Primary (4-3)	Secondary (2-1)	Np-Ns
FC-SCT4.2-1:20	1:20	7	33	0.003	0.35	1500V
FC-SCT4.2-1:30	1:30	7	74	0.003	0.90	1500V
FC-SCT4.2-1:40	1:40	7	132	0.003	1.60	1500V
FC-SCT4.2-1:50	1:50	7	205	0.003	2.50	1500V
FC-SCT4.2-1:60	1:60	7	295	0.003	3.60	1500V
FC-SCT4.2-1:70	1:70	7	400	0.003	4.60	1500V
FC-SCT4.2-1:100	1:100	7	820	0.003	9.50	1500V
FC-SCT4.2-1:125	1:125	7	1280	0.003	13.0	1500V
FC-SCT4.2-1:150	1:150	7	1800	0.003	21.0	1500V

Inductance measured between secondary pins at 100 kHz, 0.1 Vrms,

Ambient temperature -40°C to +125°C

Storage temperature Component: -40°C to +85°C

## 5. Typical Circuit



## 6. Temperature Rise vs Current

