

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

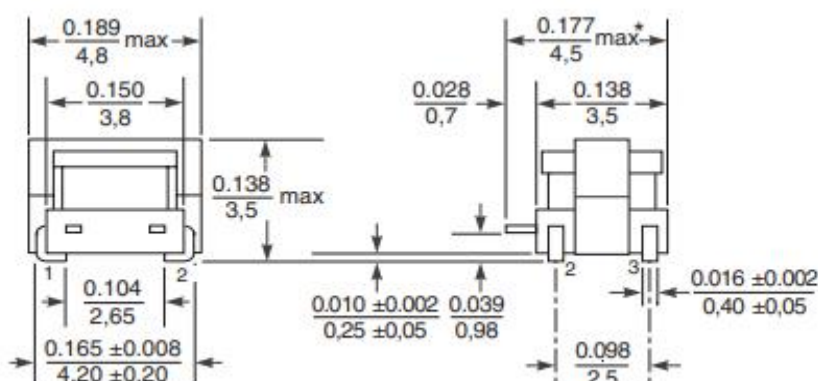
low primary DC resistance

500 Vrms, one minute isolation (hipot) between windings

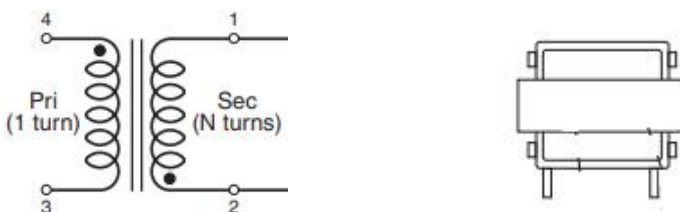
Can also be used in 48 V vehicle electrical systems



1. Dimensions:mm



2.Schematic:

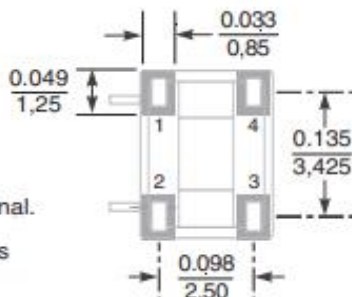


3. Recommended Land Pattern

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

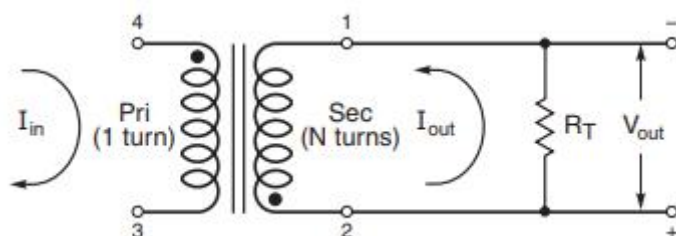
Part Number	Turns Ratio	Current Rating ² NP,(A)	Secondary Inductance (uH MIN)	DCR (Ω typ)		Hipot (V _{RMS})
				Primary (4-3)	Secondary (2-1)	Np-Ns
FC-SCT4.2-1:20	1:20	7	33	0.003	0.35	1500V
FC- SCT4.2-1:30	1:30	7	74	0.003	0.90	1500V
FC- SCT4.2-1:40	1:40	7	132	0.003	1.60	1500V
FC- SCT4.2-1:50	1:50	7	205	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

