

## FC-SCT1010-Series-40A.Current Sense Transformers

Height: 14.0mm Max

Current Rating: up to 40A

Insulation: Reinforced, 6.5mm creepage , Isolation AC3750Vrms UL

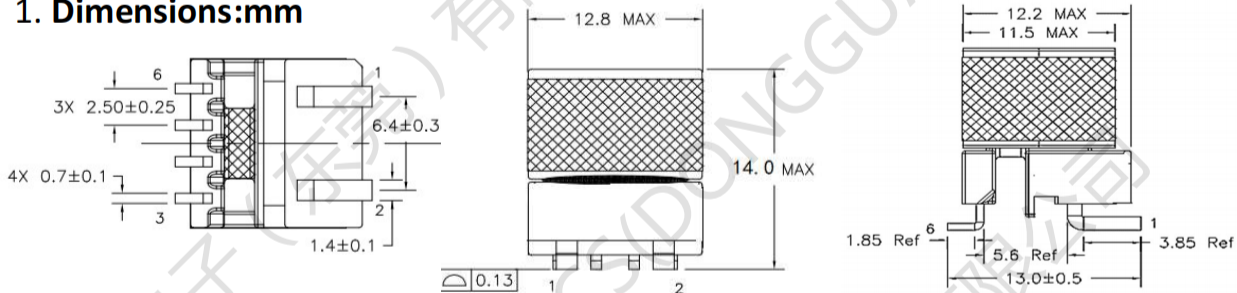
Ambient temperature -40°C to +85°C

Storage temperature Component: -40°C to +125°C

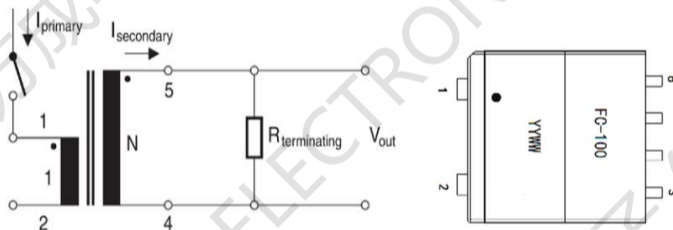
**It is used as DC current transformer for various electronic device detection**



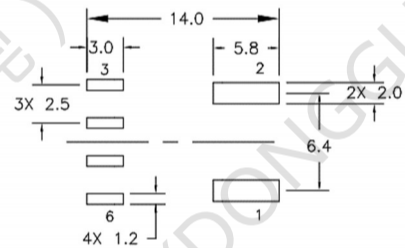
### 1. Dimensions:mm



### 2.Schematic:



### 3.PCB,LAYOUT RECOMMENDATION



### 4.Electrical Characteristics :

Part Number	Turns Ration	Current Rating NP1-2,(A)	Secondary Inductance (PIN5-4-mH min)	DCR MAX)		Hipot (ACV <sub>RMS</sub> ) Np-Ns
				Primary (1-2(mΩ))	Secondary (5-4(Ω))	
FC-SCT1010-1:50T-40A	1:50	40	1.8	0.5	1.5	3750V
FC-SCT1010-1:70T-40A	1:70	40	3.5	0.5	2.0	3750V
FC-SCT1010-1:100T-40A	1:100	40	7.0	0.5	2.5	3750V
FC-SCT1010-1:125T-40A	1:125	40	11.0	0.5	3.0	3750V
FC-SCT1010-1:150T-40A	1:150	40	15.0	0.5	3.5	3750V
FC-SCT1010-1:180T-40A	1:180	40	25.0	0.5	9.0	3750V
FC-SCT1010-1:200T-40A	1:200	40	30.0	0.5	9.5	3750V

It is used as DC current transformer for various electronic device detection.

Inductance: 10KHZ/0.25V, To calculate value of terminating resistor (Rt) use the following formula:  $R_t (V) = V_{ref} * N / (I_{peak\_primary})$

The peak flux density of the device must remain below 2200 Gauss. To calculate the peak flux density for uni-polar current use following formula:  $B_{pk} = 8.85 * V_{ref} * (Duty\_Cycle\_Max) * 105 / (N * Freq\_kHz)$