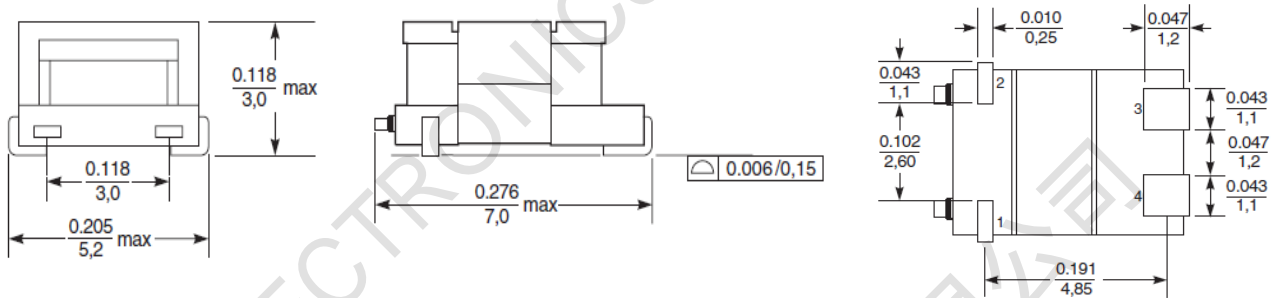


## FC-SCT 4.6 –Series Current Sense Transformers

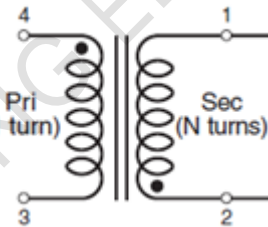
- AEC-Q200 Grade 1 qualified (−40° C to +125° C ambient)
- Small surface mount current sensors
- Sensed current up to 20 A; Frequency range up to 1 MHz
- Very low primary DC resistance
- 500 Vrms, one minute isolation (hipot) between windings
- Can also be used in 48 V vehicle electrical systems



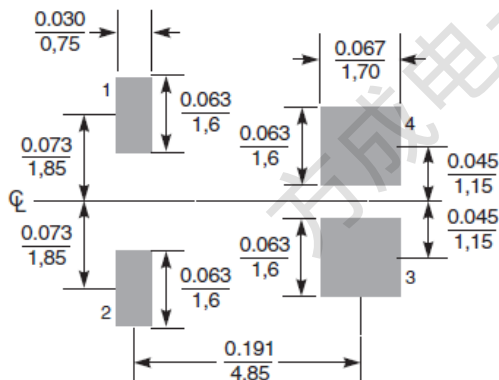
### 1. Dimensions:mm



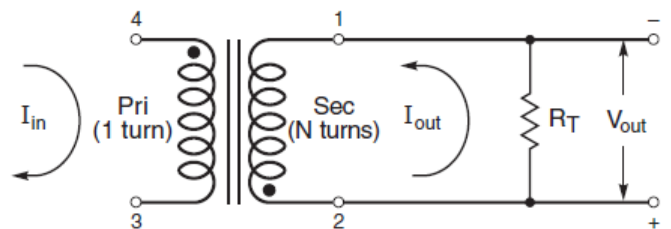
### 2.Schematic:



### 3. Recommended Land Pattern



### 4. Typical Circuit



5. 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 (mH MIN)	DCR (Ω typ)		Hipot (V <sub>RMS</sub> )
				Primary (4-3)	Secondary (1-2)	Np-Ns
FC-SCT4.6-1:20	1:20	20	0.053	0.0015	0.42	1500V
FC- SCT4.6-1:50	1:50	20	0.333	0.0015	2.76	1500V
FC- SCT4.6-1:70	1:70	20	0.652	0.0015	5.04	1500V
FC- SCT4.6-1:100	1:100	20	1.330	0.0015	10.68	1500V
FC- SCT4.6-1:150	1:150	20	2.993	0.0015	22.3	1500V

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

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver over tin over nickel over phos bronze

**Weight** 0.16 g

**Ambient temperature** -40°C to +125°C

**Maximum part temperature** +165°C (ambient + temp rise)

**Storage temperature** Component: -40°C to +125°C. Tape and reel packaging: -40°C to +80°C

**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidit

6. Temperature Rise vs Current

