

FC-SCT 4.6 –Series Current Sense Transformers

AEC-Q200 Grade 1 qualified (-40°C to $+125^{\circ}\text{C}$ ambient)

Small surface mount current sensors

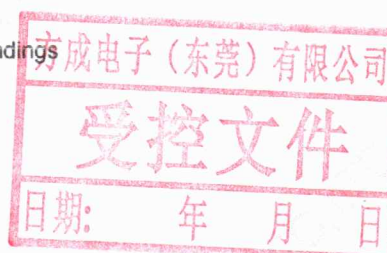
Sensed current up to 20 A; Frequency range up to 1 MHz

Very low primary DC resistance

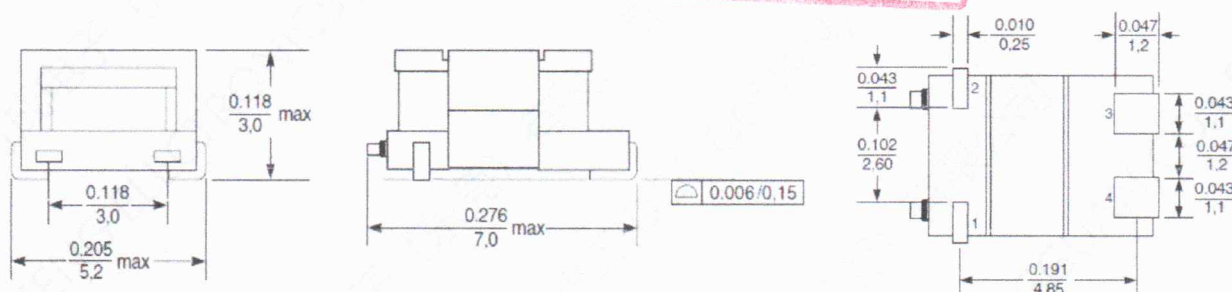
1500 Vrms, one minute isolation (hipot) between windings

Can also be used in 48 V vehicle electrical systems

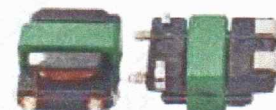
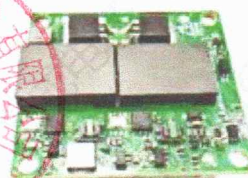
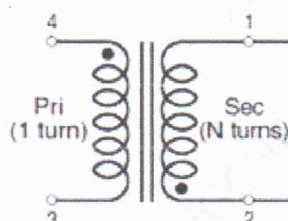
Applied to high-frequency current transformers



1. Dimensions:mm

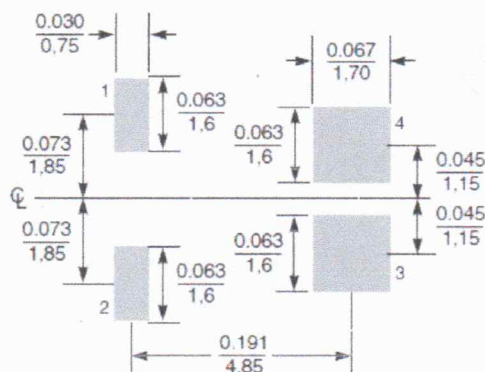


2.Schematic:

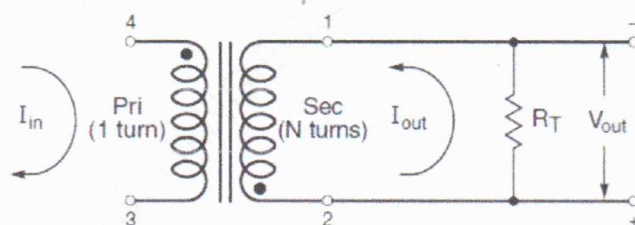


FC-SCT4.6-20A-Series current sense transformers

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 _{2 NP} (A)	Secondary Inductance (mH MIN)	DCR (Ω typ)		Hipot (VDC)
				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	22.30	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

