

FC-SCTEE8.3 -30A-Series Current Sense Transformers

Height: 7.0mm Max

Current Rating: up to 30A

Frequency Range: 100 kHz, 0.1 Vrms

Low Primary DCR version

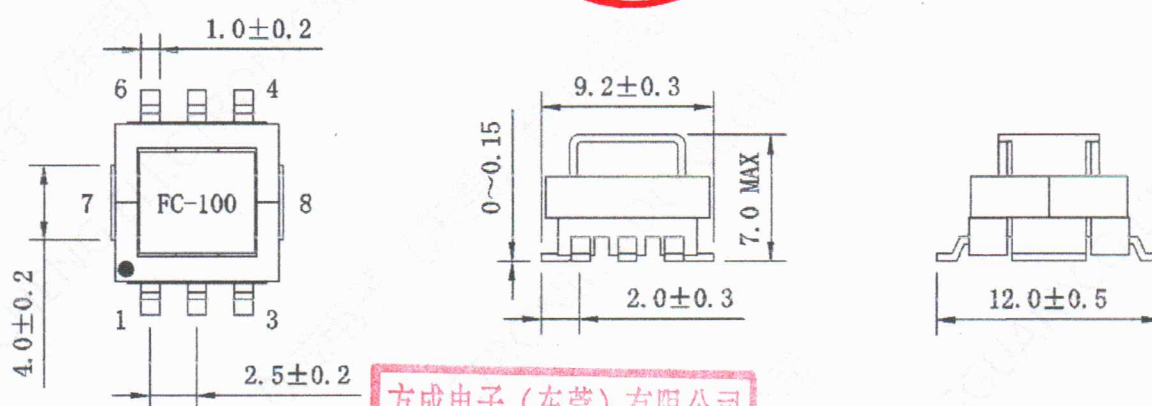
Ambient temperature -40°C to $+85^{\circ}\text{C}$

Storage temperature Component: -40°C to $+125^{\circ}\text{C}$

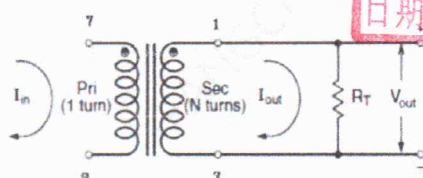
Applied to high-frequency current transformers



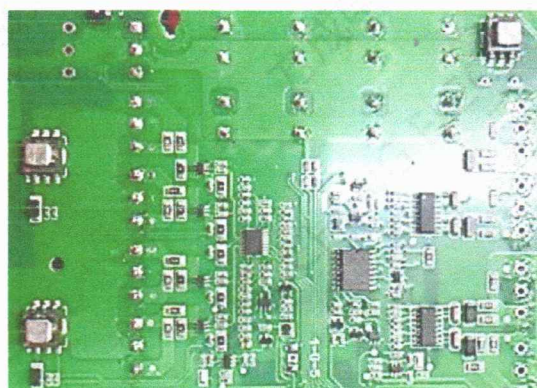
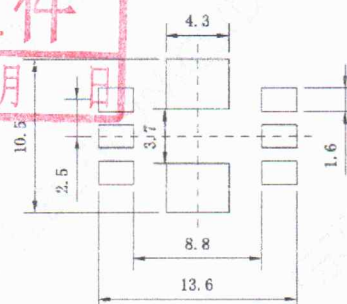
1. Dimensions:mm



2.Schematic:



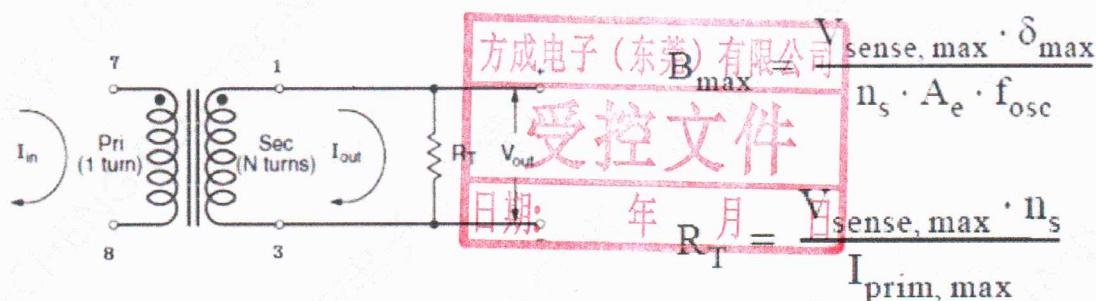
3.LAYOUT RECOMMENDATION



5. ELECTRIC CHARACTERISTICS)

Part Number	Turns Ration	Current Rating: NP7-8,(A)	Secondary Inductance (PIN1-3-mH min)	DCR (mΩ MAX)		Hipot (DCV _{RMS}) Np-Ns
				Primary (7-8)	Secondary (1-3)	
FC-SCTEE8.3-100-1-30A-T	1:100	30	3.0	0.35	3500	1500V
FC-SCTEE8.3-200-1-30A-T	1:200	30	10.0	0.35	7500	1500V

6. Application circuit and pinning



With:1

B_{max} Maximum magnetic flux density in the ferrite core of the current sense transformer

V_{sense,max} Maximum output voltage of the measurement signal δ_{max} Maximum duty cycle

n_s Number of turns of the secondary winding of the current sense transformer

A_e Effective magnetic area of the ferrite core

f_{osc} Operating frequency of the switching operator IC

Typical value for A_e: 2.5 x 10⁻⁶ m²

Typical B_{max}: 200 m

With:2

R_T Resistance of burden resistor

V_{sense,max} Maximum output voltage of the measurement signal

n_s Number of turns on the secondary side of the CT

I_{prim,max} Maximum primary current (peak current)