

FC-SCT2010 -Series Current Sense Transformers

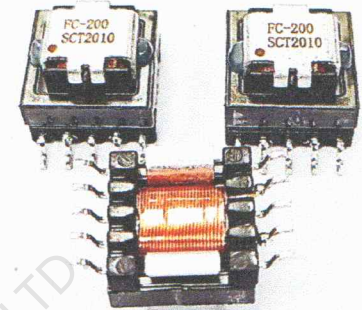
Sensed current up to 50.0 A; Designed for frequency range up to 1 MHz and above. Very low primary DC resistance
500 Vrms, one minute isolation (hipot) between windings
Core material Ferrite

Terminations RoHS compliant tin-silver over tin over nickel over phos bronze (pins 2-4); RoHS compliant matte tin over nickel over copper (pins 11-12)

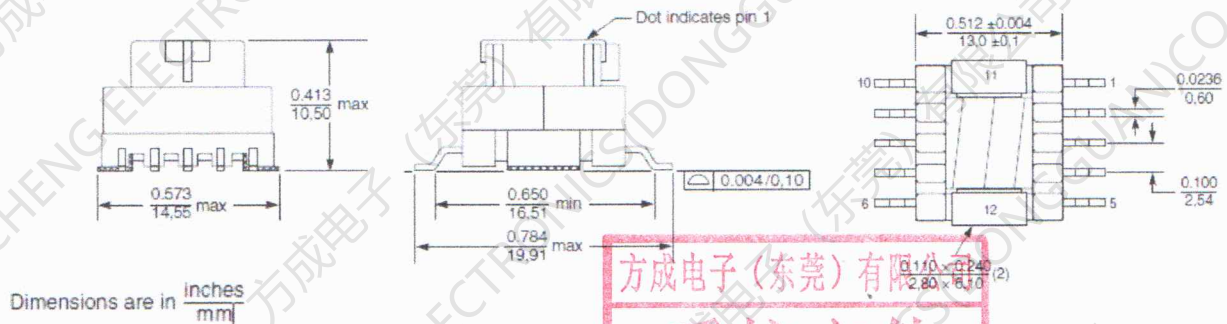
Ambient temperature -40°C to $+85^{\circ}\text{C}$

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

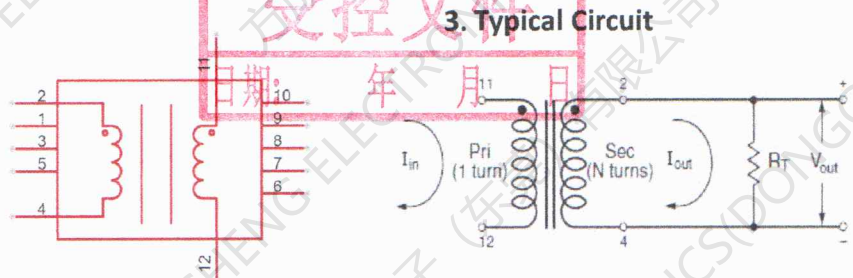
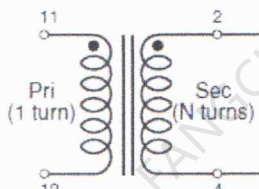
Applied to high-frequency current transformers



1. Dimensions:mm

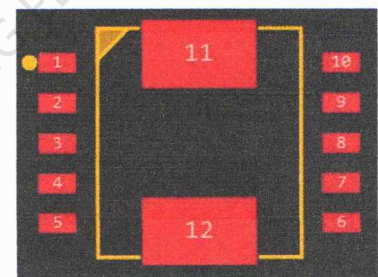
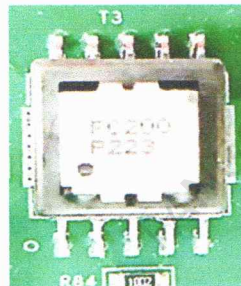
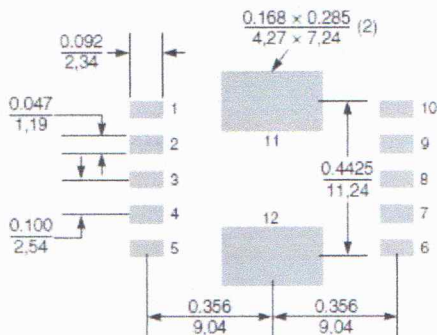


2.Schematic:



3. Typical Circuit

4. Recommended Land Pattern



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5. ELECTRIC CHARACTERICS)

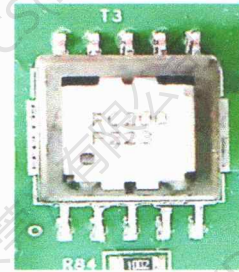
Part Number	Turns Ration	Inductance ±30%.(mH)	Voltage-Time V . μs	DCR (mΩ /ΩMAX)		Sensed Current ⁵ I (A))
				Primary	Secondary	
FC-SCT2010-020T	1:20	0.34	/	0.25	0.180	50
FC-SCT2010-030T	1:30	0.76	/	0.25	0.265	50
FC-SCT2010-040T	1:40	1.36	/	0.25	0.560	50
FC-SCT2010-050T	1:50	2.12	124	0.25	0.705	50
FC-SCT2010-060T	1:60	3.06	/	0.25	0.850	50
FC-SCT2010-070T	1:70	4.16	/	0.25	1.000	50
FC-SCT2010-080T	1:80	5.44	/	0.25	1.150	50
FC-SCT2010-100T	1:100	8.50	248	0.25	1.450	50
FC-SCT2010-125T	1:125	13.3	/	0.25	1.850	50
FC-SCT2010-150T	1:150	19.2	372	0.25	2.250	50
FC-SCT2010-200T	1:200	34.0	496	0.25	4.060	50

Electrical Specifications @ 25°C — Operating Temperature -40°C to +125°C.

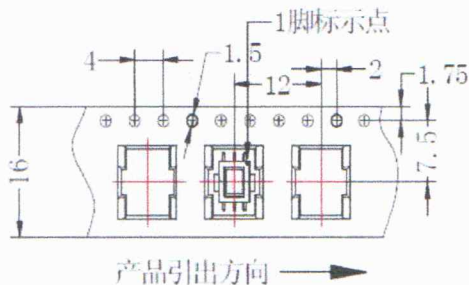
6. Notes:

1. Inductance L (2-4); 10.0 kHz, 100 mV, @ +25 ° C.
2. HI-POT: 1500 V DC, 5 s /winding to winding.
3. Typical value for Ae: 12.4 x 10⁻⁶ m²; Bmax: 200 mT

$$R_T = \frac{V_{\text{sense, max}} \cdot n_s}{I_{\text{prim, max}}} \quad B_{\text{max}} = \frac{V_{\text{sense, max}} \cdot \delta_{\text{max}}}{n_s \cdot A_e \cdot f_{\text{osc}}}$$



8. PACKAGE AND SEMBLABLE REQUIREMENT



Temperature Rise vs Current

