

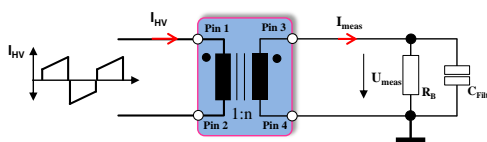
Evaluation board current sense transformer CS-35A



- PCB-design for 20A_{rms}
- bidirectional current wave forms only
- Faston terminals
- Burden resistor 10Ω
- Filter Capacitor 10pF
- Optional pinhead to connect an external μC-board
- BNC connector for direct connection to scope
- Sensitivity 100mV = 1A
- extended creepage distances design

A current sense transformer, is a transformer that is designed to produce an alternating current in the secondary winding which is proportional to the current being sensed on the primary winding.

Like a transformer, a current transformer isolates the source currents in high voltage circuits to the lower voltage side. It provides a convenient way of safety monitoring the current flowing in a high voltage side.



The principal operation of a basic current transformer is slightly different from a general voltage transformer. The current transformer has mostly only one turn on the primary winding. With the turns on the secondary side, the current ratio is defined. Across the secondary winding a burden resistor is connected.

The resulting voltage on the burden resistor is direct proportional to the current sensed on the primary side. The voltage on the secondary side of the transformer should be set as low as practically possible to minimize the insertion loss.

Electrical Specification CS 35A

Primary current [A _{rms}]	Secondary turns	Secondary inductance [mH]	Secondary DCR [Ω]	Primary DCR [mΩ]	Primary to secondary isolation [kV _{AC}]
35	100	5	1.6	1	3

CURRENT SENSE

TRANSFORMER APPLICATIONS

Peak current sensing

Current sense for bridge control

Automotive DC/DC converters and battery charger systems

Industrial high power SMPS

CURRENT SENSE TRANSFORMER CS35A FEATURES

For high performance SMPS

Max height: 8.5mm

Pick & Place compatible

Footprint: SMD 31 x 25.5mm

Current rating: up to 35A_{rms}

1:100 turn ratio

operating frequency up to 500kHz

3kV isolation design

Creepage distance more than 5mm

High operating temperature +155°C

UL94V-0 and RoHS material