

### General Description

TCS1117series are highly accurate, low noise, LDO Voltage Regulators that are capable of providing an output current that is in excess of 1.0A with a maximum dropout voltage of 1.3V at 1.0A. This series contains six fixed output voltages of 1.2 V, 1.5V,1.8 V, 2.5 V, 3.3 V, and 5.0 V that have no minimum load requirement to maintain regulation. Also included is an adjustable output version that can be programmed from 1.25 V to 20 V with two external resistors. On chip trimming adjusts the reference/output voltage to within  $\pm 2.0\%$  accuracy. Internal protection features consist of output current limiting, safe operating area compensation, and thermal shutdown. The TCS1117 series can operate with up to 20 V input.

### Features

- Output Current in Excess of 1.0A
- Dropout Voltage: 1.07V@ I<sub>OUT</sub> =100mA
- Operating Voltage Range:  
4.8V~20V (TCS1117A33)
- Highly Accuracy:  $\pm 2\%$
- Adjustable Output Voltage Option
- Standby Current: 3.3mA (TPY.)
- High Ripple Rejection: 60dB@1KHz  
(TCS1117-33)
- Line Regulation: 0.1% (TYP.)
- Temperature Stability $\leq 0.5\%$
- Current Limit (1.3A)
- Thermal Shutdown Protection (160°C)

### Typical Application

- Consumer and Industrial Equipment Point of Regulation
- Switching Power Supply Post Regulation
- Hard Drive Controllers
- Battery Chargers

### Package

- 3-pin SOT223、TO252-2、SOT89-3

### Typical Application Circuit

