

# AT2575

## 2A Step Down Voltage Switching Regulators



Immense Advance Tech.

### FEATURES

- Standard SOP-8 Package
- 3.5V, 5V, and Adjustable Output Versions
- Adjustable Version Output Voltage Range 1.23V to 37V
- $V_{OUT}$  Accuracy is to  $\pm 3\%$  Under Specified Input Voltage the Output Load Conditions
- Input Voltage Range Up to 40V
- Requires Only 4 External Components with High Efficiency
- TTL Shutdown Capability, Low Power Standby Mode
- Built-in Thermal Shutdown, Current Limit Protection
- Uses Standard Inductors
- 52 KHz Fixed Frequency Internal Oscillator

### APPLICATION

- Pre-Regulator for Linear Regulators
- High-Efficiency Step-Down Buck Regulator
- On-Card/ Board Switching Regulators
- Positive to Negative Converter (Buck)

### DESCRIPTION

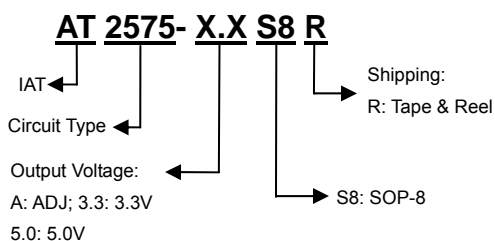
The AT2575 series of regulators are monolithic integrated circuits that provide all the active functions for a step-down (buck) switching regulator, capable of driving a 2A load with excellent line and load regulation. These devices are available in fixed output voltages of 3.3V, 5V and an adjustable output version.

Requiring a minimum number of external components, these regulators are simple to use and include internal frequency compensation, and a fixed-frequency oscillator.

A standard series of inductors are available from several different manufacturers optimized for use with the AT2575 series. This feature greatly simplifies the design of switch-mode power supplies.

The output voltage is guaranteed to  $\pm 3\%$  tolerance under specified input voltage and output load conditions. The oscillator frequency is guaranteed to  $\pm 10\%$ . External shutdown is included, featuring typically 50 $\mu$ A standby current. Self protection features include a two stage frequency reducing current limit for the output switch and an over temperature shutdown for complete protection under fault conditions.

### ORDER INFORMATION



### PIN CONFIGURATIONS (TOP VIEW)

