AT78M00

0.5 A Positive Voltage Regulator

Immense Advance Tech.

FEATURES

- Output current up to 0.5A
- 3-Terminal Regulators
- Internal Thermal Overload Protection
- Internal Short-Circuit Current Limiting
- Output Transistor Safe-Area Protection
- TO-220 and TO-252 Packages
- High Power Dissipation Capability
- Direct replacements for LM78M00

APPLICATION

- Post-Regulator Switching DC/DC Converters
- Bias Supply for Analog Circuits
- Instrumentation and Audio Systems
- Logic Systems
- Others too numerous to mention

DESCRIPTION

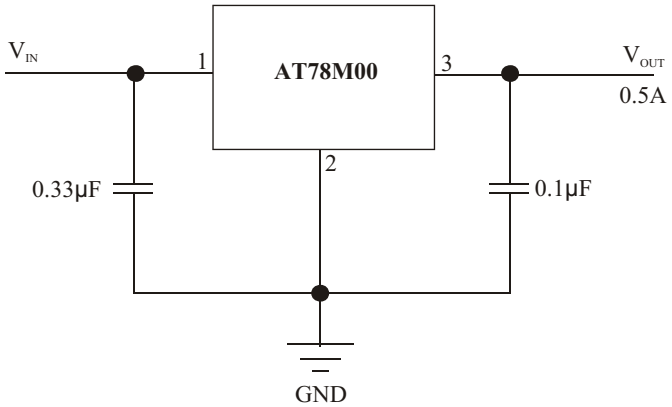
The AT78M00 is classic regulator useful in a wide range of applications. For example, you can use them for local on-card regulation to eliminate the distribution problems associated with single point regulation.

Although designed as fixed voltage regulators, you can add a few external components to make adjustable voltages and currents.

Current limiting prevents the peak output current to a safe value. Safe-area protection for the output transistor limits internal power dissipation. If internal power dissipation becomes too high for the heat sinking provided, the thermal shutdown circuit activates to prevent the regulator from overheating. These versatile workhorses are easy to use. You do not need to bypass the output, although this does improve transient response. Input bypassing is needed only if you place the regulator far from the filter capacitor of the power supply.

The AT78M00 is available in TO-220 and TO-252 Packages.

TYPICAL APPLICATION CIRCUITS



For a positive regulator, a 0.33μF bypass capacitor should be used on the input terminals. While not necessary for stability, an output capacitor of 0.1μF may be used to improve the transient response of the regulator. These capacitors should be on or as near as possible to the regulator terminals .