

CLM2950 / CLM2951

FEATURES

- 5V, 3.3V, and 3.0V Versions at 150mA Output
- Very Low Quiescent Current
- Low Dropout Voltage
- Extremely Tight Load and Line Regulation
- Very Low Temperature Coefficient
- Needs Only 1 μ F for Stability
- Current and Thermal Limiting
- Unregulated DC Input can Withstand -20V Reverse Battery and +60V Positive Transients
- Similar Replacement for LP2950/LP2951 Sockets

CLM2951 Versions Only

- Error Flag Warns of Output Dropout
- Logic-Controlled Electronic Shutdown
- Output Programmable from 1.24 to 29V

APPLICATIONS

- Battery Powered Systems
- Cordless Telephones
- Radio Control Systems
- Portable / Palm Top / Notebook Computers
- Portable Consumer Equipment
- Portable Instrumentation
- Avionics
- Automotive Electronics
- SMPS Post-Regulator
- Voltage Reference

PRODUCT DESCRIPTION

Calogic's CLM2950 and CLM2951 are low power voltage regulators. These devices are an excellent choice for use in battery-powered applications such as cordless telephones, radio control systems, and portable computers. The CLM2950 and CLM2951 features very low quiescent current and very low dropout voltage (Typ. 50mV at light load and 380mV at 100mA). This includes a tight initial tolerance of 0.5% typ., extremely good load and line regulation of 0.05% typ. and very low output temperature coefficient, making the CLM2950/CLM2951 useful as a low-power voltage reference. Other key additional features of this device includes higher output current (150mA), positive transient protection up to 60V (Load dump), and the ability to survive an unregulated input voltage transient of -20V below ground (reverse battery).

The error flag output feature is used as power-on reset for warning of a low output voltage, due to falling voltage input of batteries. Another feature is the logic-compatible shutdown input which enables the regulator to be switched on and off. The CLM2950 is offered in a 3-pin TO-92 package compatible with other 5 volt regulators. The CLM2951 is also available in 8-pin plastic and SO-8.

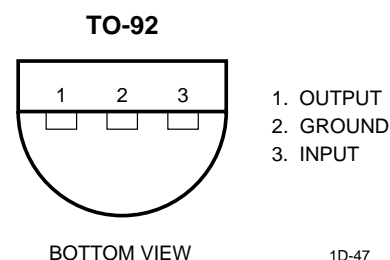
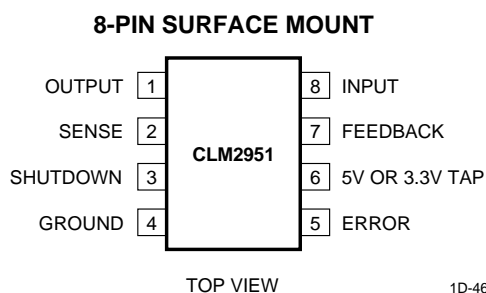
The regulator output voltage may be pin-strapped for a 5V, 3.3V and 3.0 volts or programmed from 1.24 volt to 29 volts with an external pair of resistors.

ORDERING INFORMATION

| PART | PACKAGE | TEMPERATURE RANGE |
|--------------|----------------------|-------------------|
| CLM2950ACN-X | TO-92 (3-Pin) | IND. |
| CLM2950CN-X | TO-92 (3-Pin) | IND. |
| CLM2951ACP-X | Plastic DIP (8-Pin) | IND. |
| CLM2951CP-X | Plastic DIP (8-Pin) | IND. |
| CLM2951ACS-X | Plastic SOIC (8-Pin) | IND. |
| CLM2951CS-X | Plastic SOIC (8-Pin) | IND. |

X = 3.0V, 3.3V or 5.0V

PIN CONNECTIONS



1D-47