



# LM2931 Series

## Low Dropout Voltage Regulators

The LM2931 series consists of positive fixed and adjustable output voltage regulators that are specifically designed to maintain proper regulation with an extremely low input-to-output voltage differential. These devices are capable of supplying output currents in excess of 100 mA and feature a low bias current of 0.4 mA at 10 mA output.

Designed primarily to survive in the harsh automotive environment, these devices will protect all external load circuitry from input fault conditions caused by reverse battery connection, two battery jump starts, and excessive line transients during load dump. This series also includes internal current limiting, thermal shutdown, and additionally, is able to withstand temporary power-up with mirror-image insertion.

Due to the low dropout voltage and bias current specifications, the LM2931 series is ideally suited for battery powered industrial and consumer equipment where an extension of useful battery life is desirable. The 'C' suffix adjustable output regulators feature an output inhibit pin which is extremely useful in microprocessor-based systems.

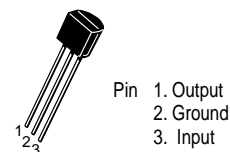
- Input-to-Output Voltage Differential of  $< 0.6 \text{ V}$  @ 100 mA
- Output Current in Excess of 100 mA
- Low Bias Current
- 60 V Load Dump Protection
- -50 V Reverse Transient Protection
- Internal Current Limiting with Thermal Shutdown
- Temporary Mirror-Image Protection
- Ideally Suited for Battery Powered Equipment
- Economical 5-Lead TO-220 Package with Two Optional Leadforms
- Available in Surface Mount SOP-8, D<sup>2</sup>PAK and DPAK Packages
- High Accuracy ( $\pm 2\%$ ) Reference (LM2931AC) Available

(See Following Page for Ordering Information.)

## LOW DROPOUT VOLTAGE REGULATORS

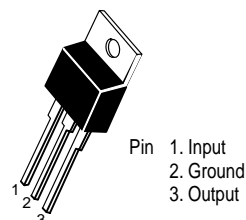
### FIXED OUTPUT VOLTAGE

**Z SUFFIX**  
PLASTIC PACKAGE  
CASE 29

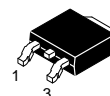


**T SUFFIX**  
PLASTIC PACKAGE  
CASE 221A

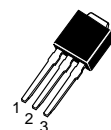
Heatsink surface  
connected to Pin 2.



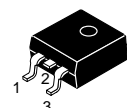
**DT SUFFIX**  
PLASTIC PACKAGE  
CASE 369A  
(DPAK)



**DT-1 SUFFIX**  
PLASTIC PACKAGE  
CASE 369  
(DPAK)



**D2T SUFFIX**  
PLASTIC PACKAGE  
CASE 936  
(D<sup>2</sup>PAK)



Heatsink surface (shown as terminal 4 in case outline drawing) is connected to Pin 2.

