

# LT3081EDF#PBF

Data Sheet

LDO Regulator Pos 0V to 34.5V 1.5A Automotive 12-Pin DFN EP Tube

Manufacturers Analog Devices, Inc

Package/Case DFN-12

Product Type Power Management ICs

RoHS Pb-free Halide free



Images are for reference only

Please submit RFQ for LT3081EDF#PBF or <a href="mailto:Emailto

**RFO** 

### **General Description**

Lifecycle

The LT3081 is a 1.5A low dropout linear regulator designed for rugged industrial applications. Key features of the IC are the extended safe operating area (SOA), output current monitor, temperature monitor and programmable current limit. The LT3081 can be paralleled for higher output current or heat spreading. The device withstands reverse input and reverse output-to-input voltages without reverse current flow.

The LT3081's precision 50µA reference current source allows a single resistor to program output voltage to any level between zero and 34.5V. The current reference architecture makes load regulation independent of output voltage. The LT3081 is stable with or without input and output capacitors.

The output current monitor (IOUT/5000) and die junction temperature output  $(1\mu A)^{\circ}C$ ) provide system monitoring and debug capability. In addition, a single resistor programs current limit.

Internal protection circuitry includes reverse-battery and reverse-current protection, current limiting and thermal limiting. The LT3081 is offered in the 16-lead TSSOP (with exposed pad for improved thermal performance), 7-lead TO-220, 7-lead DD-Pak, and an 12-lead 4mm × 4mm DFN.

**Features** 

Extended Safe Operating Area

Maximum Output Current: 1.5A

Stable with or without Input/Output Capacitors

Wide Input Voltage Range: 1.2V to 36V

Single Resistor Sets Output Voltage

Output Current Monitor:>

Junction Temperature Monitor: 1µA/°C

Output Adjustable to 0V

50µA SET Pin Current: 1% Initial Accuracy

Output Voltage Noise: 27µVRMS

Parallel Multiple Devices for Higher Current or Heat Spreading

Programmable Current Limit

Reverse-Battery and Reverse-Current Protection

Available in Thermally-Enhanced 12-Lead 4mm  $\times$  4mm DFN and 16-Lead TSSOP, 7-Lead DD-Pak and 7-Lead TO-220

#### **Related Products**



**LT3763EFE** 

Analog Devices, Inc TSSOP28



**LTC4417IUF** 

Analog Devices, Inc QFN-24



LTC1966CMS8#PBF

Analog Devices, Inc MSOP-8P



LTM8045EY#PBF

Analog Devices, Inc

BGA40

## **Application**

All Surface Mount Power Supply

Rugged Industrial Power Supply

Post Regulator for Switching Supplies

Low Output Voltage Supply

Intrinsic Safety Applications



LT1038CK

Analog Devices, Inc TO-3



LTC3440EMS

Analog Devices, Inc

MSOP10



#### LTC2990IMS#PBF

Analog Devices, Inc 10MSOP



LT4295IUFD#PBF

Analog Devices, Inc 28-WFQFN