

LT4363HDE-2#PBF

Data Sheet

Hot Swap Controller 1CH 80V N-Channel Positive High Voltage Automotive 12Pin DFN EP Tube

Manufacturers <u>Analog Devices, Inc</u>

Package/Case DFN-12

Product Type Power Supplies

RoHS Green

Lifecycle



Images are for reference only

Please submit RFQ for LT4363HDE-2#PBF or Email to us: sales@ovaga.com We will contact you in 12 hours.

RFO

General Description

The LT4363 surge stopper protects loads from high voltage transients. It regulates the output during an overvoltage event, such as load dump in vehicles, by controlling the gate of an external N-channel MOSFET. The output is limited to a safe value allowing the loads to continue functioning. The LT4363 also monitors the voltage drop between the SNS and OUT pins to protect against overcurrent faults. An internal amplifier limits the voltage across the current sense resistor to 50mV. In either fault condition, a timer is started inversely proportional to MOSFET stress. Before the timer expires, the FLT pin pulls low to warn of an impending power down. If the condition persists, the MOSFET is turned off. The LT4363-1 remains off until reset whereas the LT4363-2 restarts after a cool down period.

Two precision comparators can monitor the input supply for overvoltage (OV) and undervoltage (UV) conditions. When the potential is below the UV threshold, the external MOSFET is kept off. If the input supply voltage is above the OV threshold, the MOSFET is not allowed to turn back on. Back-to-back MOSFETs can be used in lieu of a Schottky diode for reverse input protection, reducing voltage drop and power loss. A shutdown pin reduces the quiescent current to less than $7\mu A$ during shutdown.

Features

Withstands Surges Over 80V with VCC Clamp

Wide Operating Voltage Range: 4V to 80V

Adjustable Output Clamp Voltage

Fast Overcurrent Limit: Less Than 5µs

Reverse Input Protection to -60V

Adjustable UV/OV Comparator Thresholds

Low 7µA Shutdown Current

Shutdown Pin Withstands -60V to 100V

Adjustable Fault Timer

Controls N-Channel MOSFET

Less Than 1% Retry Duty Cycle During Faults, LT4363-2

Available in 12-Pin (4mm × 3mm) DFN, 12-Pin MSOP or 16-Pin SO Packages

Application

Automotive/Avionic Surge Protection

Hot SwapTM/Live Insertion

High Side Switch for Battery Powered Systems

Intrinsic Safety Applications

Related Products



LTC1966CMS8

Analog Devices, Inc MSOP-8



LT1054ISW

Analog Devices, Inc

SOP-16



LT1931ES5

Analog Devices, Inc

SOT-23



LTC1446CS8

Analog Devices, Inc

SOP-8



LTC2600IGN

Analog Devices, Inc SSOP-16



LTC2208CUP

Analog Devices, Inc QFN64



LTC1606IG

Analog Devices, Inc SSOP-28





LT3463EDD

Analog Devices, Inc QFN10