
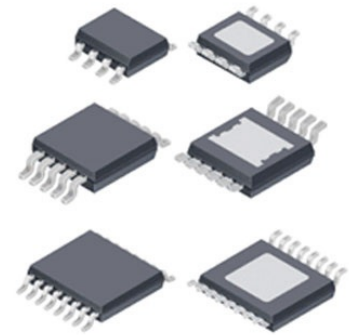


## Surge Stopper Automotive 10-Pin MSOP Tube

<b>Manufacturer:</b>	<a href="#">Analog Devices, Inc</a>
<b>Package/Case:</b>	MSOP
<b>Product Type:</b>	Power Management ICs
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	Active



Images are for reference only

[Inquiry](#)

## General Description

The LT4356 surge stopper protects loads from high voltage transients. It regulates the output during an overvoltage event, such as load dump in automobiles, by controlling the gate of an external N-channel MOSFET. The output is limited to a safe value thereby allowing the loads to continue functioning. The LT4356MP also monitors the voltage drop between the VCC and SNS pins to protect against overcurrent faults. An internal amplifier limits the current sense voltage to 50mV. In either fault condition, a timer is started inversely proportional to MOSFET stress. If the timer expires, the FLT pin pulls low to warn of an impending power-down. If the condition persists, the MOSFET is turned off. After a cooldown period, the GATE pin pulls up turning on the MOSFET again. The auxiliary amplifier may be used as a voltage detection comparator or as a linear regulator controller driving an external PNP pass transistor. Back-to-back FETs 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 for the LT4356-1 during shutdown. The LT4356-2 differs from the LT4356-1 during shutdown by reducing the quiescent current to 60 $\mu$ A and keeping alive the auxiliary amplifier for uses such as an undervoltage lockout or always-on regulator.

LT4356-1

LT4356MP-1

LT4356-2

LT4356MP-2

LT4356-3

LT4356MP-3

Low Current Shutdown 7 $\mu$ A 60 $\mu$ A 7 $\mu$ A Aux Amp In Shutdown OFF Always Alive OFF Fault Retry Retry Retry Latch Off Packages DFN-12, MS-10, SO-16 DFN-12, SO-16 DFN-12, MS-10, SO-16 Temp Grades C, I, H, MPC, I, H, MPC, I, H, MP

## Key Features

Stops High Voltage Surges  
Adjustable Output Clamp Voltage  
Overcurrent Protection  
Wide Operation Range: 4V to 80V  
Reverse Input Protection to -60V  
Low 7 $\mu$ A Shutdown Current, LT4356-1  
Adjustable Fault Timer  
Controls N-channel MOSFET  
Shutdown Pin Withstands -60V to 100V  
Fault Output Indication  
Guaranteed Operation -55°C to 125°C  
Auxiliary Amplifier for Level Detection Comparator or Linear Regulator Controller  
Available in 10-Pin MSOP or 16-Pin SO Packages

## Application

Automotive/Avionic Surge Protection  
Hot Swap/Live Insertion  
High Side Switch for Battery Powered Systems

## Recommended For You

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### LT4364HDE-2#TRPBF

Analog Devices, Inc  
DFN-14

### LT4364HMS-2#PBF

Analog Devices, Inc  
MSOP16

### LT4356IS-1#PBF

Analog Devices, Inc  
SOP16

### LT4364HDE-2#PBF

Analog Devices, Inc  
MSOP-12

### LT4356CMS-1#TRPBF

Analog Devices, Inc  
MSOP10

### LT4367IDD-1#PBF

Analog Devices, Inc  
DFN8

### LT4356HMS-3#PBF

Analog Devices, Inc  
MSOP10

### LT4363MPMS-2#PBF

Analog Devices, Inc  
MSOP12

### LT4356HDE-1#PBF

Analog Devices, Inc  
DFN12

### LT4356HDE-2#PBF

Analog Devices, Inc  
DFN12

### LT4364HMS-1#PBF

Analog Devices, Inc  
MSOP16

### LT4364HDE-2#PBF

Analog Devices, Inc  
DFN14

**LTC4364HS-2#PBF**

Analog Devices, Inc

SOP16

**LTC4364IDE-2#PBF**

Analog Devices, Inc

DFN14

**LTC4364IMS-2#PBF**

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MSOP16