



Floating Surge Stopper Provides Unlimited Overvoltage Protection

MILPITAS, CA – January 9, 2012 – Linear Technology Corporation introduces the [LTC4366](#), an overvoltage protection controller for electronic systems. Operating from 9V to greater than 500V, the LTC4366 floating surge stopper utilizes an adjustable floating topology to enable very high voltage operation independent of the voltage rating of the LTC4366's internal circuitry. Two internal shunt regulators coupled with the external voltage-dropping resistors generate the LTC4366's internal supply rails. The maximum operating voltage is set by the breakdown of the external resistors and MOSFETS. The LTC4366 is the first product of its kind to protect, for example, a 12V circuit from a 500V transient without the need for additional protection components.

The LTC4366 monitors the voltage at its output and reacts quickly to input supply overvoltage by controlling the gate of an N-channel MOSFET. The LTC4366 regulates the output to a user-defined voltage during an overvoltage transient allowing the load to remain operational while the overvoltage is dropped across a MOSFET. An adjustable fault timer ensures safe shutdown if the fault persists.

The LTC4366 is ideal for harsh industrial, automotive and avionic applications where systems must continue operating reliably through severe overvoltage events. High voltage applications include protecting from motor transients, coupled overvoltage, incorrect input supplies or power supply failures. While traditional protection circuitry relies on bulky inductors, capacitors, fuses and transient voltage suppressors to clamp the transient, the LTC4366 protects by series regulating the transient. It is packaged in a tiny 8-lead TSOT-23 and 3mm x 2mm DFN packages. During operation, the entire circuit consumes only a few milliamperes, and the device may be shut down to less than 20 μ A.

The LTC4366 is available in two options; the LTC4366-1 latches off after a fault, while the LTC4366-2 will retry after a 9-second cool down period. Devices are specified over the full commercial, industrial and automotive temperature ranges. Pricing begins at \$2.65 each for

1,000-piece quantities and the device is available today in production quantities. For more information, visit www.linear.com/product/LTC4366


Photo Caption: Floating Surge Stopper Protects from 800V Surge

Summary of Features: LTC4366

- Rugged Floating Topology with User Adjustable Max Output
- Wide Operating Input and Output Voltage Range: 9V to >500V
- Adjustable Output Clamp Voltage
- External N-Channel MOSFET Sets Max V_{IN}
- Adjustable Protection Timer
- Internal 9-Second Cooldown Timer
- Shutdown Current < 20 μ A
- 8-Lead TSOT & 3mm x 2mm DFN Package

About Linear Technology

Linear Technology Corporation, a member of the S&P 500, has been designing, manufacturing and marketing a broad line of high performance analog integrated circuits for major companies worldwide for three decades. The Company's products provide an essential bridge between our analog world and the digital electronics in communications, networking, industrial, automotive, computer, medical, instrumentation, consumer, and military and aerospace systems. Linear Technology produces power management, data conversion, signal conditioning, RF and interface ICs, and μ Module[®] subsystems.

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