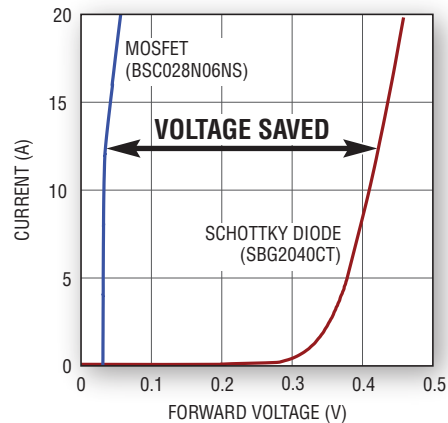
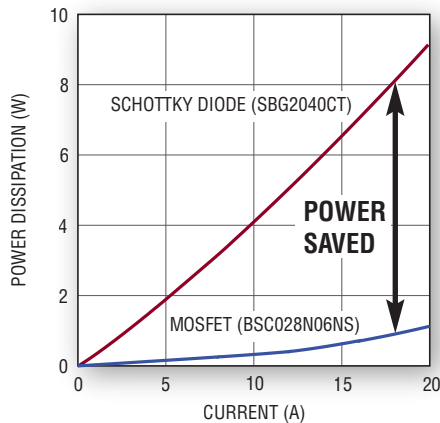


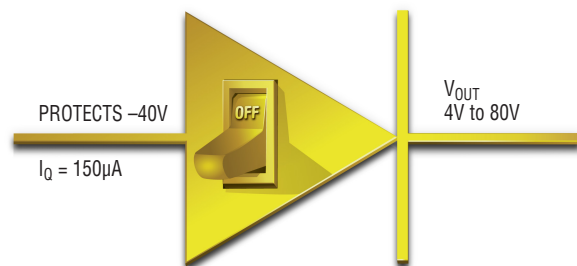
Ideal Diode Controllers



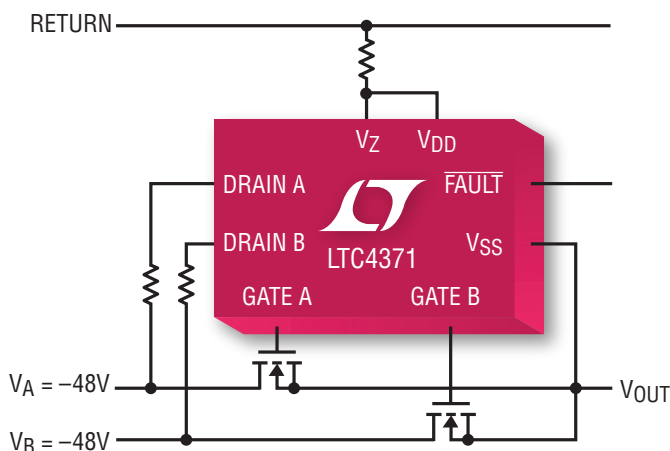
Ideal diode controllers offer a simple low loss replacement to power Schottky diodes in high current applications. Linear Technology's family of high power ideal diodes use N-channel MOSFETs to perform the function of a low forward voltage diode. This provides a more efficient solution and preserves precious board space by reducing the need for heat sinking. Linear control of the forward voltage drop across the MOSFET ensures smooth current delivery without oscillation, even under light loads. If a power source fails or is shorted, a fast $<1\mu\text{s}$ turn-off minimizes reverse current transients. Ideal diode controllers are ideal for ORing supplies together to provide redundancy in the event of input failure or hard short. Additionally, ideal diodes can be used for output supply holdup during brief interruptions of input power.

LTC4359 Ideal Diode Controller with Reverse Input Protection

- Wide Operating Voltage Range: 4V to 80V, Operates Through Cold Crank
- Reverse Voltage Protection to -40V
- On/Off Control of Forward Path
- Low Quiescent Current: $150\mu\text{A}$
- Low Shutdown Current: $9\mu\text{A}$
- -40°C to 125°C Operation



LTC4371 Negative Voltage Ideal Diode-OR Controller



- -4.5V to Above -100V Operation
- Withstands $> \pm 300\text{V}$ Transients
- Low 15mV Ideal Diode Drop
- Fast $< 220\text{ns}$ Reverse Current Turn-Off
- 5mA Gate Pull-Up for AC Rectification
- Open Fuse and Open MOSFET Detection

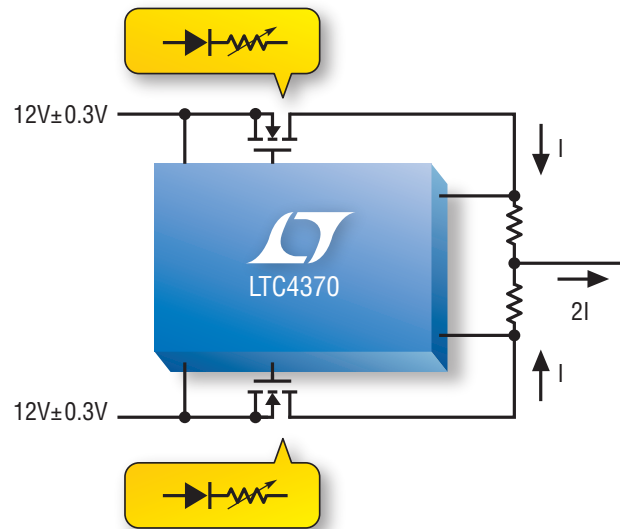


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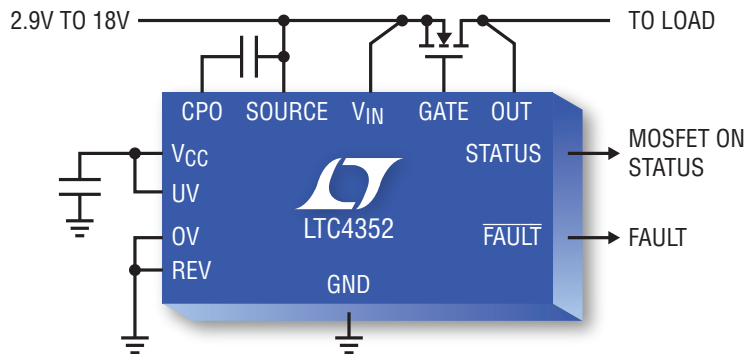
LTC4370 2-Supply Diode-OR Current Balancing Controller

The LTC4370 enables two power supplies to share load current which spreads the heat to increase system reliability. Additional load-sharing benefits include faster recovery after supply failure, and the ability to operate supplies near their peak efficiency point.

- Eliminates Need for Active Control of Input Supplies
- No Share Bus Required
- Blocks DC Reverse Current
- 0V to 18V High Side Operation
- Enable Inputs
- MOSFET On Status Outputs
- Dual Ideal Diode Mode



LTC4352 Low Voltage Ideal Diode Controller with Monitoring



- 0V to 18V Supply ORing or Holdup
- Fast 0.5µs Gate Turn-On and Turn-Off Time Avoids Load Droop and Reverse DC Current
- Undervoltage and Overvoltage Protection
- Open MOSFET Detection
- Status and Fault Outputs
- Hot Swappable
- Reverse Current Enable Input

Linear Technology N-Channel Ideal Diodes			
Part Number	ORing Range	Function	Package (mm x mm)
LTC4371	-4.5V to > -100V	Dual Ideal Diode-OR with Monitoring	3 x 3 DFN-10, MSOP-10
LTC4355*	9V to 80V	Dual Ideal Diode-OR with Supply and Fuse Monitoring	4 x 3 DFN-14, SO-16, MSOP-16
LTC4357*	9V to 80V	Single Ideal Diode	2 x 3 DFN-6, MSOP-8
LTC4358	9V to 26.5V	Single Ideal Diode with Internal 5A FET	4 x 3 DFN-14, TSSOP-16
LTC4359*	4V to 80V	Single Ideal Diode, Reverse Input Protection	2 x 3 DFN-6, MSOP-8
LTC4352*	0V to 18V	Single Ideal Diode with Monitoring	3 x 3 DFN-12, MSOP-12
LTC4353	0V to 18V	Dual Ideal Diode with Enable Inputs	4 x 3 DFN-16, MSOP-16
LTC4370	0V to 18V	Two Supply Diode-OR Current Balancing Controller	4 x 3 DFN-16, MSOP-16
LTC4227	2.9V to 18V	Dual Ideal Diode-OR and Single Hot Swap Controller	4 x 5 QFN-20, SSOP-16
LTC4228	2.9V to 18V	Dual Ideal Diode and Hot Swap Controller	4 x 5 QFN-28, SSOP-28
LTC4229	2.9V to 18V	Ideal Diode and Hot Swap Controller	4 x 5 QFN-24, SSOP-24
LTC4235	9V to 14V	Dual Ideal Diode-OR and Single Hot Swap Controller with Current Monitor	4 x 5 QFN-20
LTC4236	2.9V to 18V	Dual Ideal Diode-OR and Single Hot Swap Controller with Current Monitor	4 x 5 QFN-28
LTC4364*	4V to 80V	Surge Stopper with Ideal Diode, Reverse Input/Output Protection	4 x 3 DFN-14, MSOP-16, SO-16

*High temperature version available.