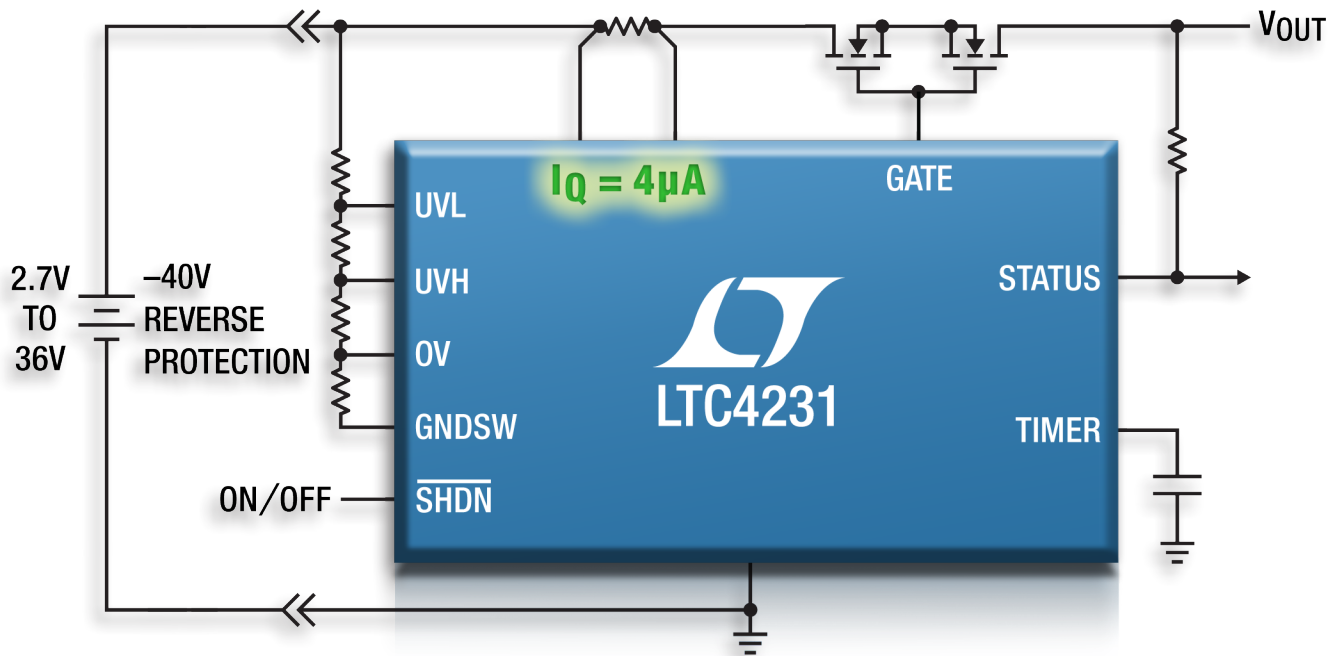


Micropower Hot Swap Controller



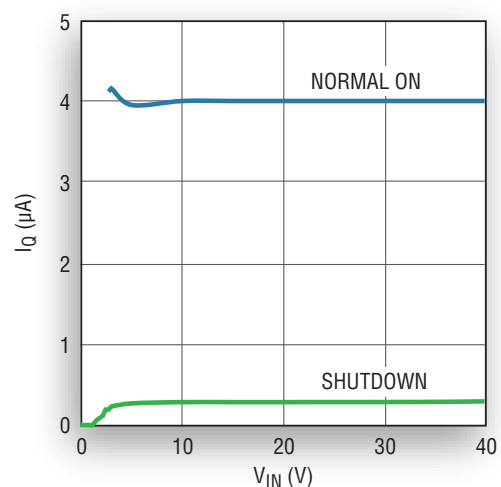
4µA I_Q Hot Swap Controller Protects Battery Against Voltage and Current Faults

The LTC4231 Hot Swap™ controller delivers a micropower solution for safe insertion and removal of boards and batteries in energy conscious applications. Device I_Q (quiescent current) is a mere 4µA while a strobed ground reduces the input voltage divider current by 50x. The system is completely protected against battery deep discharge, output overload or short-circuit, overvoltage and reverse battery connection. Placing the LTC4231 in shutdown mode reduces its I_Q to 0.3µA and turns off the external N-channel power MOSFETs to disconnect downstream circuits, extending battery standby time.

Features

- Enables Safe Board or Battery Insertion and Removal
- Low 4µA Quiescent Current, 0.3µA in Shutdown
- 2.7V to 36V Operating Range
- Reverse Battery Protection to -40V
- Overcurrent Protection
 - Two Level: Circuit Breaker with Higher Current Limit
 - Adjustable Circuit Breaker Delay
 - 1µs (max) Fast Current Limit Response
 - Automatic Retry or Latchoff After Current Fault
- Overvoltage and Undervoltage Protection
 - Adjustable Undervoltage Hysteresis
 - Divider Strobed Ground for Reduced Current
- Controls Single or Back-to-Back N-Channel MOSFETs
- MOSFET On Status Output
- 12-Pin MSOP and 3mm × 3mm QFN Packages

I_Q vs Input Voltage

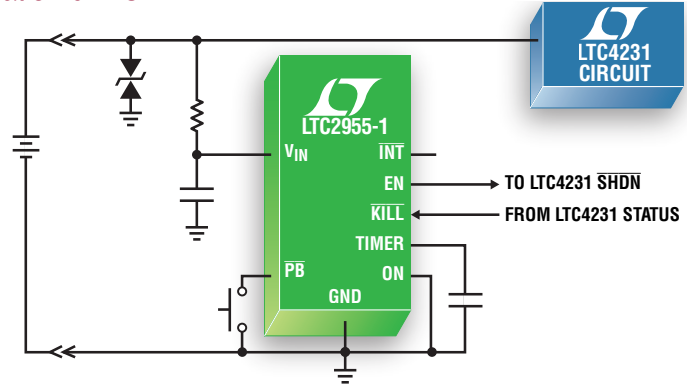


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Micropower Devices for Building Battery Powered Systems

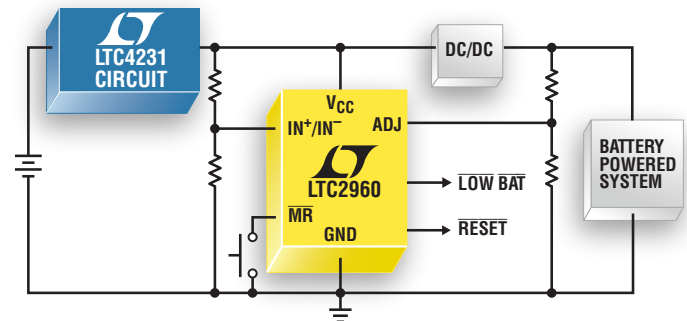
LTC2955 Pushbutton On/Off Controller with Automatic Turn-On

- Automatic Turn-On with Voltage Monitor Input
- 1.2µA Quiescent Current
- 1.5V to 36V Operating Range
- PB Input: ±36V Range, ±25kV ESD HBM
- Simple Interface Allows Graceful µP Shutdown
- Adjustable Turn-Off Timer
- 10-Pin 3mm x 2mm DFN and 8-Pin ThinSOT™ Packages



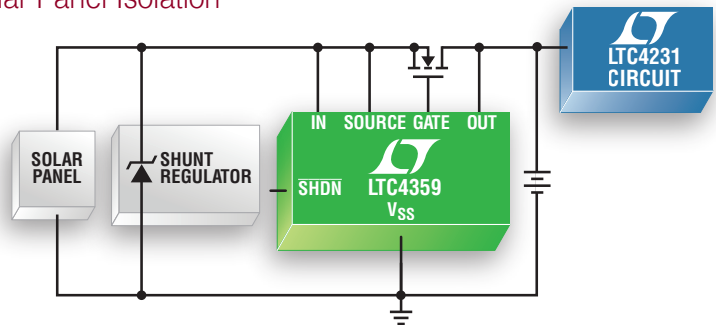
LTC2960 Nano-Current Two Input Voltage Supervisor for Reset Generation

- 850nA Quiescent Current
- 2.5V to 36V Operating Range
- ±1.5% (Max) Threshold Accuracy
- Adjustable Reset Threshold
- Manual Reset Input
- 40°C to 125°C Operation
- 8-Pin TSOT-23 and 2mm x 2mm DFN Packages



LTC4359 Ideal Diode Controller for Lossless Solar Panel Isolation

- Low Loss Replacement for Power Schottky Diode
- 150µA Quiescent Current, 9µA in Shutdown
- 4V to 80V Operating Range
- On/Off Control of Forward Path
- Reverse Input Protection to –40V
- 40°C to 125°C Operation
- 8-Pin MSOP and 6-Pin 2mm x 3mm DFN Packages



Other Battery Friendly Devices

Device	V _{IN} (V)	V _{IN,REV} (V)	I _Q (µA)	I _{SHDN} (µA)	Function	Package (mm x mm)
LTC4361	2.5 to 5.5	PFET	230	1.5	Overcurrent and 80V Overvoltage Protection	TSOT23-8, 2 x 2 DFN-8
LTC4364	4 to 80	–40	483	10	Surge Stopper/Hot Swap with Ideal Diode	MSOP-16, SO-16, 4 x 3 DFN-14
LTC4365	2.5 to 34	–40	125	10	OV, UV and Reverse Input Protection	TSOT23-8, 3 x 2 DFN-8
LTC4417	2.5 to 36	–42	28	15	Prioritized Supply Selection from Three Inputs	SSOP-24, 4 x 4 QFN-24