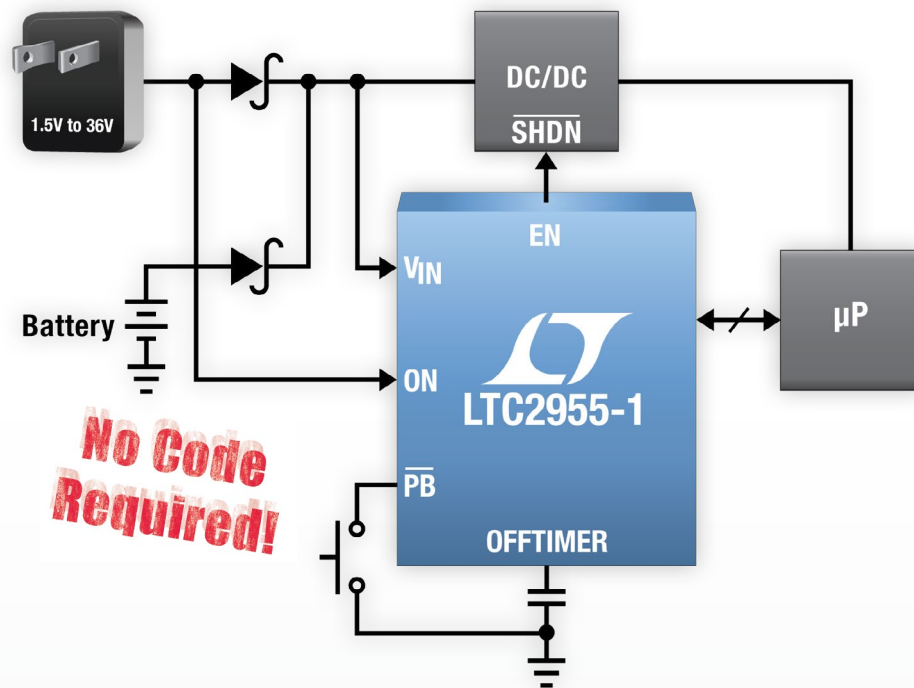


# High Voltage Pushbutton Controllers

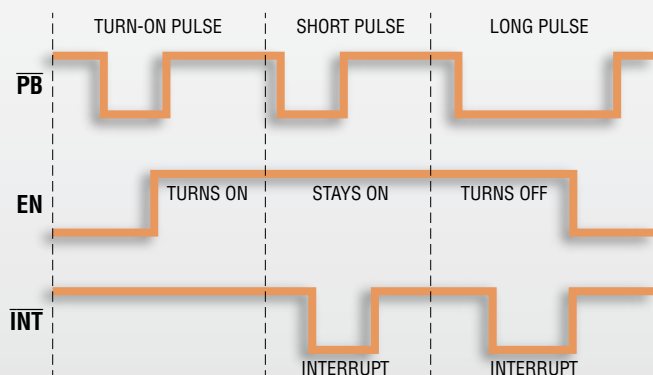


The LTC®2955 pushbutton on/off controller manages system power via a pushbutton interface or presence of a supply. Pushbutton controllers typically initiate system power-ups only with the toggle of a pushbutton. However, the LTC2955 will also automatically turn on a system when power is applied from a primary or secondary supply, such as a wall adapter or car battery. When powered up, the LTC2955 can power-down a system via pushbutton and can optionally use interrupt logic to request for a system power-down in menu-driven applications (“soft” shutdown), or automatically power-down a system if the primary or secondary supply is removed.

## LTC2955 Features:

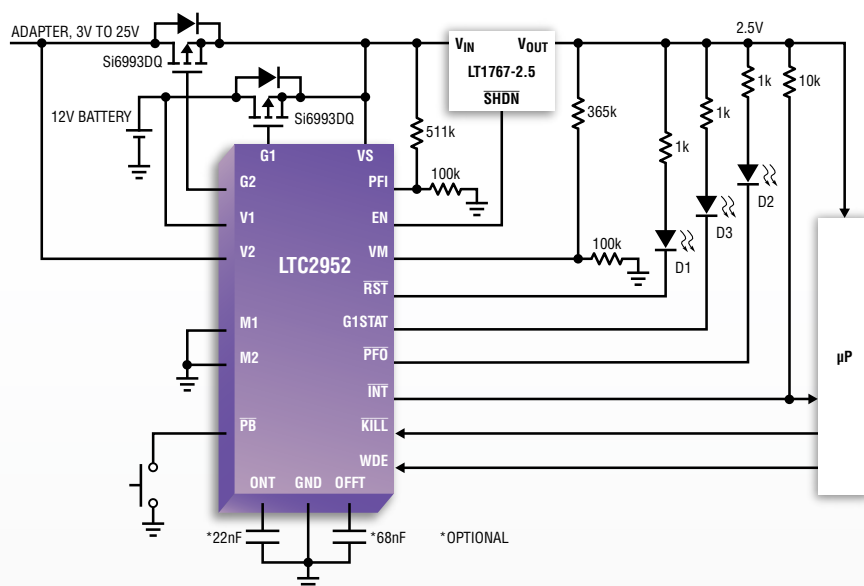
- Automatic Turn-On with Voltage Monitor Input
- Wide Input Supply Range: 1.5V to 36V
- Low Supply Current: 1.2μA
- ±25kV ESD HBM on  $\overline{\text{PB}}$  Input
- ±36V Wide Input Voltage for  $\overline{\text{PB}}$  Input
- Low Leakage EN Output Allows DC/DC Converter Control (LTC2955-1)
- High Voltage  $\overline{\text{EN}}$  Output Drives External P-Channel MOSFET (LTC2955-2)
- Simple Interface Allows Graceful  $\mu\text{P}$  Shutdown
- Adjustable Turn-Off Timer
- 10-Lead 3mm x 2mm DFN and 8-Lead ThinSOT™ Packages

## LTC2955 Pushbutton On/Off with Interrupt



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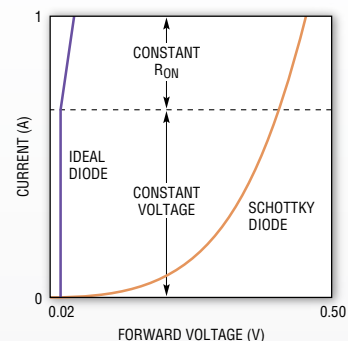
# LTC2952 Pushbutton PowerPath Controller with Supervisor



## Four PowerPath Configurations

1. PB Controller with Automatic Switchover between Wall Adaptor and Battery
2. PB Controller with Preferential Wall Adapter Operation and Automatic Switchover to Battery
3. PB Control of Ideal Diode Drivers
4. Battery Backup with PB PowerPath Controller

## Ideal Diode vs Schottky Diode Forward Voltage Drop



The LTC2952 is a power management device that features three main functions: pushbutton on/off control of system power, ideal diode PowerPath™ controllers and system monitoring. The pushbutton input, which provides on/off control of system power, has independently adjustable ON and OFF debounce times. A simple microprocessor interface involving an interrupt signal allows for proper system housekeeping prior to power-down. The ideal diode PowerPath controllers provide automatic low loss switchover between two DC sources by regulating two external P-channel MOSFETs to have a small 20mV forward drop. High reliability systems can use the LTC2952's monitoring features including power-fail, voltage monitoring and  $\mu$ P watchdog to ensure system integrity.

## Linear Technology Pushbutton Controllers

Part Number	Description	Supply Voltage	Supply Current	Turn-On Debounce Time	System OK Response Time	Interrupt Debounce Time	Turn-Off Debounce Time	Turn-Off Delay	ESD	Packages
LTC2950	Basic Pushbutton Controller	2.7V to 26V	6 $\mu$ A	Adj	512ms	Adj	n/a	1024ms	$\pm 10$ kV	TSOT-8 DFN-8
LTC2951	Basic Pushbutton Controller	2.7V to 26V	6 $\mu$ A	128ms	512ms	Adj	n/a	Adj	$\pm 10$ kV	TSOT-8 DFN-8
LTC2952	Pushbutton Controller with 2 Ideal Diode-OR Controllers for Load Sharing or Automatic Switchover Applications	2.7V to 28V	25 $\mu$ A	Adj	400ms	26ms	Adj	400ms	$\pm 8$ kV	TSSOP-20 QFN-20
LTC2953	Pushbutton Controller with Supply Monitor, UVLO and Power Fail Comparators for Supervisory Applications	2.7V to 27V	12 $\mu$ A	32ms	512ms	32ms	Adj	n/a	$\pm 10$ kV	DFN-12
LTC2954	Pushbutton Controller with Interrupt Logic for Menu-Driven Applications	2.7V to 26V	6 $\mu$ A	Adj	512ms	32ms	Adj	n/a	$\pm 10$ kV	TSOT-8 DFN-8
LTC2955	Pushbutton Controller with Automatic Turn-On and Interrupt Logic for Menu Driven Applications	1.5V to 36V	1.2 $\mu$ A	32ms	512ms	32ms	Adj	n/a	$\pm 25$ kV	TSOT-8 DFN-10
LTC2956	Wake-Up Timer with Pushbutton Control	1.5V to 36V	1 $\mu$ A	32ms	n/a	32ms	Adj	n/a	$\pm 25$ kV	MSOP-12 DFN-12