



## Neo-Iso™ Isolated Power

### FEATURES

- Low quiescent operating current
  - 2 $\mu$ A in OFF state
  - 4 $\mu$ A in ON state
- Scalable galvanic from primary to secondary sides of the device
- Switch Turn-On / Turn-Off Times ~25 $\mu$ S
- Single control signal for on/off input (CLK)
- Operation from 2.7V to 5.5V compatible with standard microcontrollers
- Switch characteristics:
  - 60V switch with bi-directional blocking in OFF state
  - 110m ohm R<sub>dson</sub>
  - Up to 4A operating current
- Low profile allows thin and compact end products
- Silent operation improves user experience

### APPLICATIONS

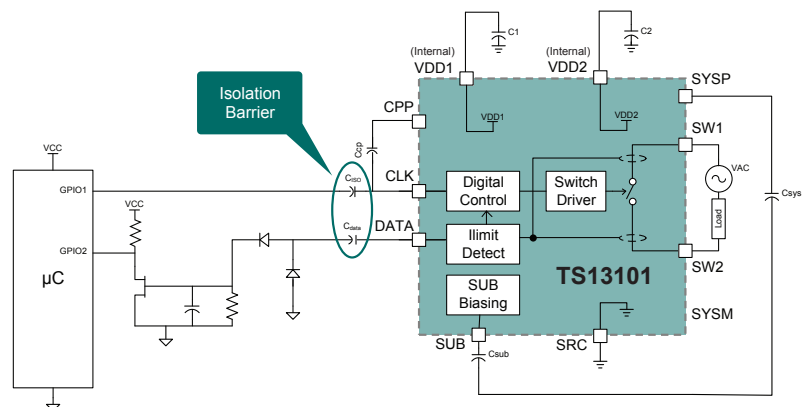
- Internet Of Things (IoT)
- HVAC / Thermostats
- Home Automation / Smart Home
- Security
- Smart Metering
- Industrial Control



## Neo-Iso™ Isolated Load Switches

### POWER MANAGEMENT SOLUTIONS

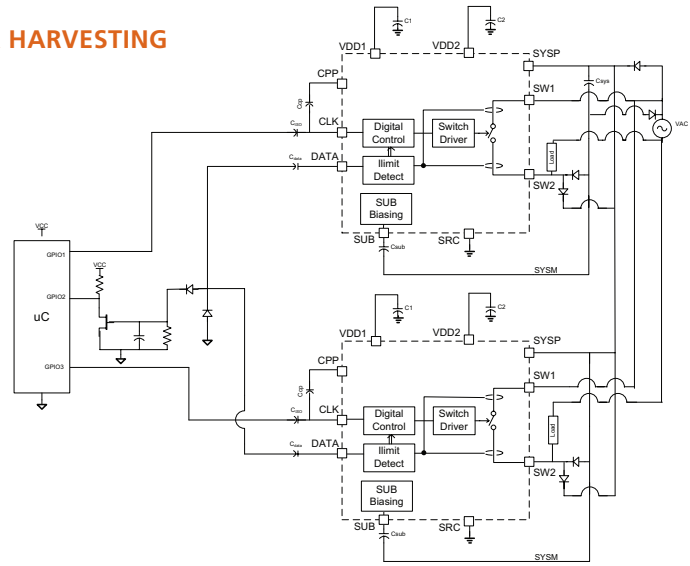
Semtech Neo-Iso™ technology from Semtech enhances Internet of Things applications by adding higher levels of intelligence and control. Neo-Iso switches make it possible for low-power microcontrollers to control high voltage loads in the system. Reporting of fault conditions from the switch to the controller enables system responses resulting in safer, more efficient operation. Low current draw allows each switch to operate off of power harvested from the load, eliminating the need for additional supplies. Implemented in proven, volume manufacturing processes, consistently high levels of reliability are achieved throughout the entire operating life. Semiconductor-based design allows future scalability and integration options not possible with legacy technologies such as mechanical relays and opto-couplers.



TS13101 Latching, Single Channel

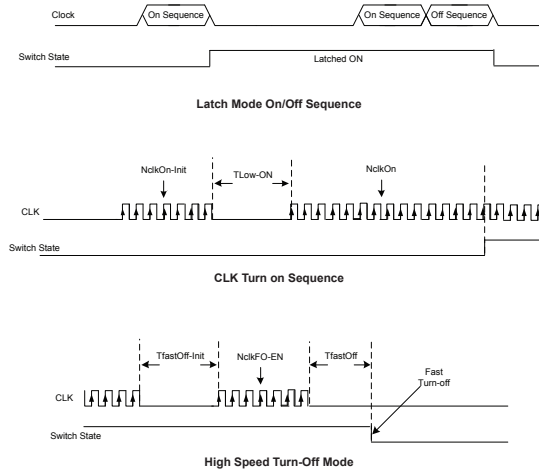
### SYSTEM IMPLEMENTATION DIAGRAM WITH AC POWER HARVESTING

- IC power can be harvested either from CLK charge pump or from AC power harvesting
- Control power is received from the Switch pins and stored on the System pins
- System pins can also be powered from an external power supply

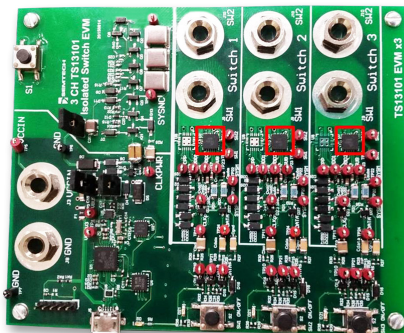


### LATCH ON/OFF SEQUENCING - TS13101

- A unique digital pattern is used to turn on/off the solid-state switch. During the non-transition periods, the input can be clocked to power the device or not clocked and receive power from the solid state switch side.



### AVAILABLE EVALUATION BOARD: TS13101-EVMX3



□ TS13101-QFNR

### ORDERING INFORMATION

Ordering Info		
Part Number	Package (mm)	Standard Reel Quantity
TS13101-QFNR	20 Pin QFN (4x4)	3300



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