GLF4028
Ultra-low IQ, Asymmetrical Power Mux IC with Auto & Manual Input Selection

DESCRIPTION

The GLF4028 is an integrated power multiplexer switch with dual independent power switches connected to a single output pin to enable seamless transition between two input sources.

The GLF4028 provides a manual selection mode by the combination of the logic input pins of EN and SEL. The EN input pin is used along with the select (SEL) input pin to select VIN1 only, select VIN2 only, or turn both switches off.

The GLF4028 features an ultra-efficient I_QSmart™ technology that offers quiescent current (I_Q) and shutdown current (I_{SD}) in the industry. Low R_{ON} reduces conduction losses while low I_Q and I_{SD} solutions help designers to reduce parasitic leakage current, improve system efficiency, and increase battery lifetime.

The GLF4028 blocks any cross-conduction current between two input power sources. When the switch is disabled, the GLF4028 prevents the reverse current to the input source from the output at any higher VOUT than VIN condition.

FEATURES

- Two-Input and Single-Output Power Multiplexer Switch
- Supply Voltage Range: 2.5 V to 5.5 V
- R_{ON}: 97 mΩ Typ. at 5.5 V_{IN1} or V_{IN2}
  105 mΩ Typ. at 4.5 V_{IN1} or V_{IN2}
- 2 A Continuous Output Current Capability Per Channel
- Ultra-Low Supply Current at Operation
  I_Q : 3 μA Typ at 5.5 V_{IN}
- Ultra-Low Stand-by Current
  I_{SD} : 5 nA Typ at 5.5 V_{IN}
- Smart Control Pins
  I_{EN} and I_{SEL} : 3 nab Typ at V_{EN} or V_{SEL}>V_{IH}
  R_{EN} and R_{SEL} : 500 kΩ Typ
- No Cross Conduction Between Two Inputs
- Reverse Current Blocking when Disabled
- Operating Temperature Range: -40 °C to 85 °C
- HBM: 6 kV, CDM: 2 kV

PRODUCT TABLE

Part Number	Top Mark	R_{ON} at 5.5 V_{IN}	Output Current, I_{OUT}	Ultra-low I_Q at 5.5 V_{IN}
GLF4028-T2G7	EP	97 mΩ	2 A	3 μA