Current Limited Load Switch

Features

- **Input Voltage Range: 2.7V to 5.5V**
- **Programmable Over-Current Threshold**
- **90mΩ Typical $R_{DS(ON)}$ at V_{IN}=5V**
- **Only 2.5V Needed for ON/OFF Control**
- **Under-Voltage Lockout**
- **Thermal Shutdown**
- **No Reverse Leakage Current**
- **Open-drain Fault Flag Pin**
- **TDFN2X2-6, MSOP-8 and SOP-8 Package**

Applications

- **Hot Swap Supplies**
- **Notebook Computers**
- **Peripheral Ports**
- **Personal Communication Devices**

General Description

The G5255 is a current limited N-channel MOSFET power switch designed for highside load switching applications. The low $R_{DS(ON)}$ N-channel power MOSFET is driven by a built-in charge pump which generates a voltage higher than the supply voltage to fully enhance the switch.

This switch operates with inputs ranging from 2.7V to 5.5V, making it ideal for both 3.3V and 5V systems. An integrated current-limiting circuit protects the input supply against large current which may cause the supply to fall out of regulation. The G5255 is also protected from thermal overload which limits power dissipation and junction temperatures. Current limit threshold is programmed with a resistor from SET to ground. An open-drain flag output is also available to indicate fault condition, including overcurrent, and thermal shutdown. In shutdown mode, the supply current decreases to less than 1μA. The reverse leakage current is also less than 1μA.

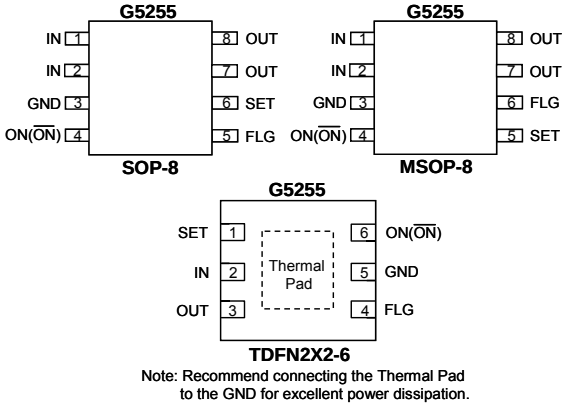
The G5255 is available in TDFN2X2-6, MSOP-8 and SOP-8 packages.

Ordering Information

ORDER NUMBER	MARKING	ENABLE	TEMP. RANGE	PACKAGE (Green)
G5255LRB1U	E55A	Active Low	-40°C to +85°C	TDFN2X2-6
G5255HRB1U	E55B	Active High	-40°C to +85°C	TDFN2X2-6
G5255LP12U	G5255LA	Active Low	-40°C to +85°C	SOP-8
G5255HP12U	G5255HA	Active High	-40°C to +85°C	SOP-8
G5255LP81U	G5255L	Active High	-40°C to +85°C	MSOP-8
G5255HP81U	G5255H	Active High	-40°C to +85°C	MSOP-8

Note: RB: TDFN2X2-6 P1: SOP-8 P8: MSOP-8
1 & 2: Bonding Code
U : Tape & Reel

Pin Configuration



Note: Recommend connecting the Thermal Pad to the GND for excellent power dissipation.

Typical Application Circuit

