G2995

DDR Termination Regulator

Features

- **Operation Supply Voltage: 1.6V to 5.5V**
- **Low Supply Current: 280µA @ 2.5V**
- **Low Output Offset**
- **Source and Sink Current**
- **Low External Component Count**
- **No Inductor Required**
- **No external Resistors Required**
- **Thermal Shutdown Protection**
- **SOP-8 with Power-Pad package**

Applications

- **DDR-SDRAM Termination Voltage**
- **DDR-I / DDR-II Termination Voltage**
- **SSTL-2**
- **SSTL-3**

General Description

The G2995 is a linear regulator designed to meet the JEDEC SSTL-2 and SSTL-3 (Series Stub Termination Logic) specifications for termination of DDR-SDRAM. It contains a high-speed operational amplifier that provides excellent response to the load transients. This device can deliver 1.5A continuous current and transient peaks up to 3A in the application as required for DDR-SDRAM termination. With an independent V_{SENSE} pin, the G2995 can provide superior load regulation. The G2995 provides a V_{REF} output as the reference for the applications of the chipset and DIMMs.

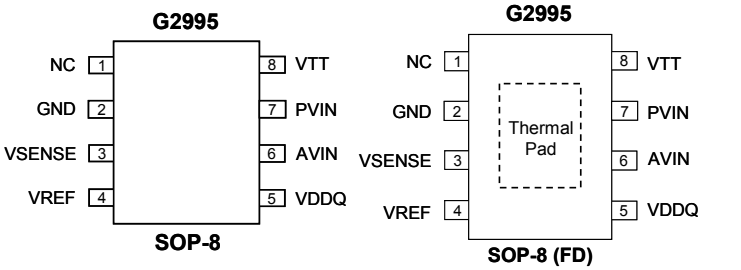
The G2995 can easily provide the accurate V_{TT} and V_{REF} voltages without external resistors that PCB areas can be reduced. The quiescent current is as low as 280µA @ 2.5V. So the power consumption can meet the low power consumption applications.

Ordering Information

ORDER NUMBER (Pb free/Green)	MARKING	TEMP. RANGE	PACKAGE
G2995P1Uf	G2995	-40°C to 85°C	SOP-8
G2995F1Uf	G2995	-40°C to 85°C	SOP-8 (FD)

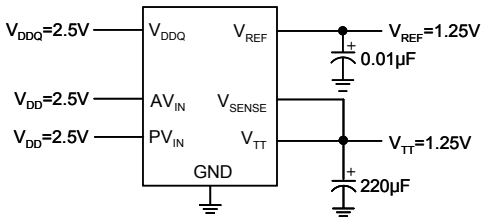
Note: P1:SOP-8 F1:SOP-8(FD)
U: Tape & Reel (FD): Thermal Pad

Pin Configuration



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

Typical Application Circuit



DDR I/II Termination Regulator

Features

- **Operation Supply Voltage: 1.6V to 5.5V**
- **Low Supply Current: 280µA @ 2.5V**
- **Low Output Offset**
- **Source and Sink Current**
- **Low External Component Count**
- **No Inductor Required**
- **No external Resistors Required**
- **Thermal Shutdown Protection**
- **Suspend to RAM (STR) Function**
- **SOP-8 with Power-Pad Package**

Applications

- **DDR-SDRAM Termination Voltage**
- **DDR-I / DDR-II Termination Voltage**
- **SSTL-2**
- **SSTL-3**

General Description

The G2996 is a linear regulator designed to meet the JEDEC SSTL-18, SSTL-2 and SSTL-3 (Series Stub Termination Logic) specifications for termination of DDR-SDRAM. It contains a high-speed operational amplifier that provides excellent response to the load transients. This device can deliver 1.5A/0.9A continuous current and transient peaks up to 3A/1.8A in the application as required for DDRI/II-SDRAM termination. With an independent V_{SENSE} pin, the G2996 can provide superior load regulation. The G2996 provides a V_{REF} output as the reference for the applications of the chipset and DIMMs.

The G2996 can easily provide the accurate V_{TT} and V_{REF} voltages without external resistors that PCB areas can be reduced. The quiescent current is as low as 280µA @ 2.5V. So the power consumption can meet the low power consumption applications.

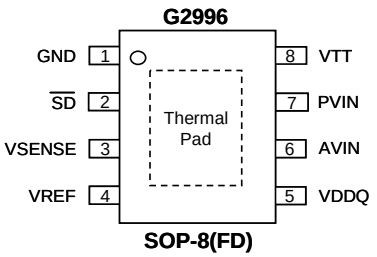
The G2996 also has an active low shutdown ($\overline{SD}$) pin that provides Suspend to RAM (STR) functionality. When $\overline{SD}$ is pulled low, the V_{TT} output will be tri-state providing a high impendence, but V_{REF} will remain active. A power saving advantage can be obtained in this mode through lowering the quiescent current to180µA @ 2.5V.

Ordering Information

ORDER NUMBER (Pb free/Green)	MARKING	TEMP. RANGE	PACKAGE
G2996F1Uf	G2996	-40°C to 85°C	SOP-8 (FD)

Note: F1:SOP-8(FD)
U: Tape & Reel (FD): Thermal Pad

Pin Configuration



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

Typical Application Circuit

