

2A DDR Bus Termination Regulator

Features

- V_{CNTL} Supply Voltage: 3V to 5.5V
- Termination Supply Voltage: 1.2V to 3.6V
- Support DDR I(1.25V_{TT}), DDR II (0.9 V_{TT}), and DDR III(0.75V_{TT}) Requirements
- Requires Only 20μF Ceramic Output Capacitor
- Low Output Offset
- 2A Source and Sink Current
- Low External Component Count
- No Inductor Required
- Thermal Shutdown Protection
- Over Current Protection
- Suspend to RAM (STR) Function with High-impedance Output
- SOT-23-5, SOP-8 and MSOP-8 (FD) Package

Applications

- DDR-SDRAM Termination Voltage
- DDR I / DDR II / DDRIII Termination Voltage
- SSTL-18
- SSTL-2
- SSTL-3

General Description

The G2992B 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 I/ II/ III -SDRAM. It contains a high-speed operational amplifier that provides excellent response to the load transients. This device can deliver 2A continuous current in the application such as required for DDR I/ II/ III SDRAM termination. The G2992B can easily provide the accurate V_{TT} voltage with two external resistors generating reference voltage. The quiescent current is as low as 750μA @ V_{CNTL} = 3.3V. So the power consumption can meet the low power consumption applications. The G2992B also has a shutdown function by setting V_{REF} smaller than 0.2V, that provides Suspend to RAM (STR) functionality. When in the shutdown mode, the V_{TT} output (on V_{OUT} pin) will be tri-state providing a high impedance. A power saving advantage can be obtained in this mode through lowering the quiescent current to 50μA @ V_{CNTL} = 3.3V.

Ordering Information

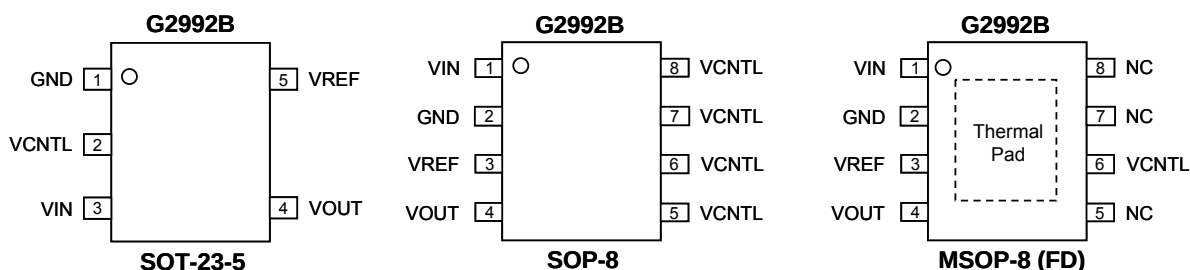
ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G2992BT11U	292Bx	-40°C to +125°C	SOT-23-5
G2992BP11U	G2992B	-40°C to +125°C	SOP-8
G2992BF51U	G2992B	-40°C to +125°C	MSOP-8 (FD)

Note: T1: SOT-23-5 P1: SOP-8 F5: MSOP-8 (FD)

1: Bonding Code

U: Tape & Reel

Pin Configuration



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