

DDR Termination Regulator

Features

- Support DDR I (1.25V_{VTT}), DDR II (0.9 V_{VTT}), DDR III (0.75 V_{VTT}), and DDR IIIIL (0.675V_{VTT}) Requirements
- Input Voltage Range: 3V to 5.5V
- VLDOIN Voltage Range: 1.2V to 3.6V
- Requires Only 20 μ F Ceramic Output Capacitance
- Supports High-Z in S3 and Soft-Off in S5
- Integrated Divider Tracks 1/2 VDDQ_{SNS} for Both VTT and VTTREF
- Remote Sensing (VTT_{SNS})
- ± 20 mV Accuracy for VTT and VTTREF
- 10mA Buffered Reference (VTTREF)
- Built-In Soft-Start
- Over Current Protection
- Thermal Shutdown Protection
- MSOP-10 & MSOP-10 (FD) Package

Applications

- DDR I/II/III/IIIIL Memory Termination
- SSTL-2, SSTL-18
- HSTL Termination

General Description

The G2997B is a 2A sink/source tracking termination regulator. It is specifically designed for low-cost/low-external component count systems. The G2997B maintains a high speed operational amplifier that provides fast load transient response and only requires 20 μ F (2x10 μ F) of ceramic output capacitance. The G2997B supports remote sensing functions and all features required to power the DDR I / DDR II /DDRIII /DDR IIIIL VTT bus termination according to the JEDEC specification. In addition, the G2997B includes integrated sleep-state controls placing VTT in High-Z in S3 (suspend to RAM) and soft-off for VTT and VTTREF in S5 (Shutdown). The G2997B is available in MSOP-10 and MSOP-10 (FD).

Ordering Information

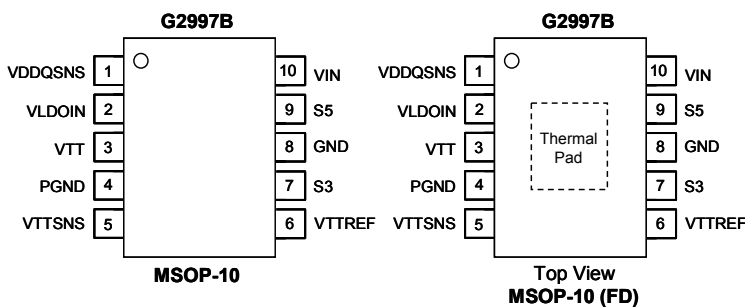
ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G2997BP71U	G2997	-40°C~85°C	MSOP-10
G2997BF61U	G2997B	-40°C~85°C	MSOP-10 (FD)

Note: P7: MSOP-10 F6: MSOP-10 (FD)

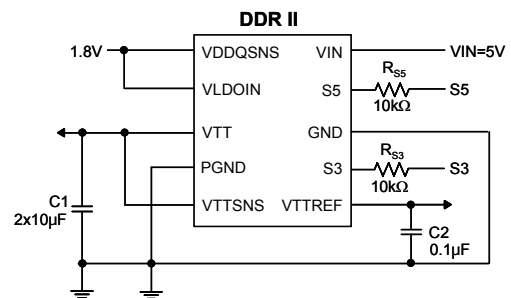
1: Bonding Code

U: Tape & Reel

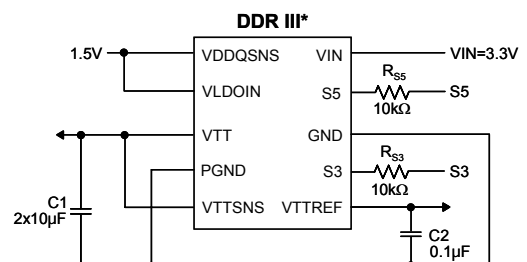
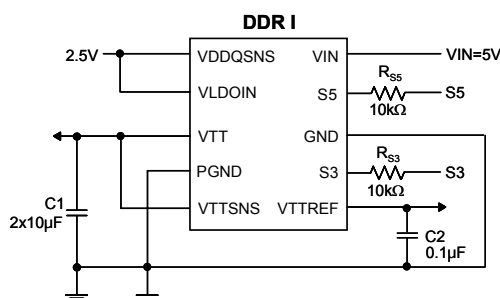
Pin Configuration



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



Typical Application Circuit



* Recommended V_{IN} = 3.3V