

DDR Termination Regulator

Features

- Support DDR I (1.25VTT), DDR II (0.9 VTT), DDR III (0.75 VTT), and DDR IIIL (0.675VTT) 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 VDDQSNS for Both VTT and VTTREF
- Remote Sensing (VTTSNS)
- ± 20 mV Accuracy for VTT and VTTREF
- 10mA Buffered Reference (VTTREF)
- Built-In Soft-Start
- Over Current Protection
- Thermal Shutdown Protection
- MSOP-8 (FD) , MSOP-10 (FD) & TDFN3X3-10 Package

General Description

The G2997 is a 3A sink/source tracking termination regulator. It is specifically designed for low-cost/low-external component count systems. The G2997 maintains a high speed operational amplifier that provides fast load transient response and only requires 20 μ F (2 \times 10 μ F) of ceramic output capacitance. The G2997 supports remote sensing functions and all features required to power the DDR I / DDR II /DDR III /DDR IIIL VTT bus termination according to the JEDEC specification. In addition, the G2997 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 G2997 is available in the thermally efficient 8pin, 10pin MSOP (Thermal Pad) & 10pin TDFN.

Applications

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

Ordering Information

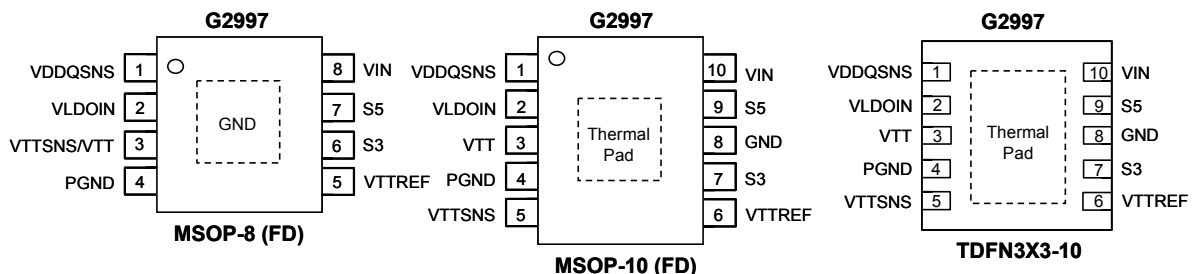
ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G2997F51U	G2997	-40°C~85°C	MSOP-8 (FD)
G2997F6U	G2997	-40°C~85°C	MSOP-10 (FD)
G2997RE1U	2997	-40°C~85°C	TDFN3X3-10

Note: F5: MSOP-8(FD) F6: MSOP-10(FD) RE: TDF3X3-10

1: Bonding Code <only MSOP-8 (FD), TDFN3X3-10>

U: Tape & Reel

Pin Configuration



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

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 V_{DDQSNS} for Both V_{VTT} and V_{VTTREF}
- Remote Sensing (V_{VTTSENS})
- ± 20 mV Accuracy for V_{VTT} and V_{VTTREF}
- 10mA Buffered Reference (V_{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 V_{VTT} bus termination according to the JEDEC specification. In addition, the G2997B includes integrated sleep-state controls placing V_{VTT} in High-Z in S3 (suspend to RAM) and soft-off for V_{VTT} and V_{VTTREF} in S5 (Shutdown). The G2997B is available in MSOP-10 and MSOP-10 (FD).

Ordering Information

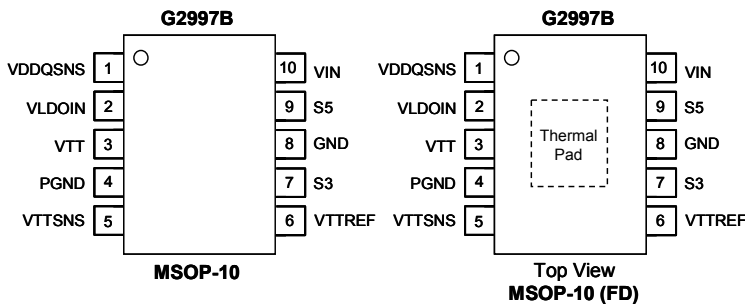
ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G2997BP71U	G2997	-40°C~85°C	MSOP-10
G2997BF61U	G2997B	-40°C~85°C	MSOP-10 (FD)

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

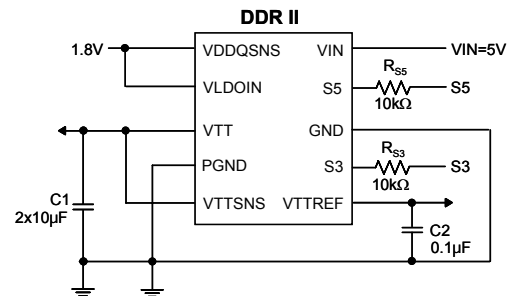
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U: Tape & Reel

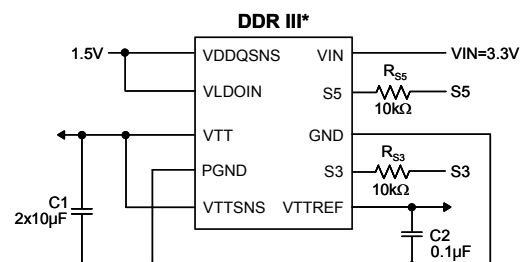
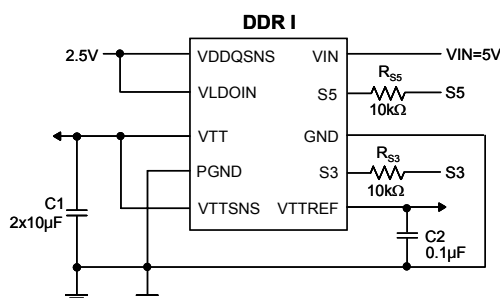
Pin Configuration



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



Typical Application Circuit



* Recommended V_{IN}=3.3V