G2987

DDR Termination Regulator

Features

- **Support DDR I (1.25 V_{TT}), DDR II (0.9 V_{TT}), DDR III (0.75 V_{TT}), DDR IIIL (0.675V_{TT}) and DDR IV (0.6 V_{TT}) Requirements**
- **VCNTL Supply Voltage: 3V to 5.5V**
- **Termination Supply Voltage : 1.2V to 3.6V**
- **Stable with Output Ceramic Capacitor**
- **Over Current Protection**
- **Thermal Shutdown Protection**
- **Shutdown Function for STR (S3) Mode**
- **Adjustable Output Voltage with Resistors**
- **Built-In Soft-Start**
- **Power MOS integrated**
- **SOP-8 (FD) and MSOP-8 (FD) Package**
- **RoHS Compliant**

Applications

- **DDR I/II/III/IIIL/IV Memory Termination**
- **SSTL_3, SSTL_2, SSTL_18, SSTL_15**
- **Notebook/Desktop/Server**
- **Telecom/Datacom, GSM Base Station, LCD-TV/PDP-TV, Copier/Printer, Set-Top Box**

General Description

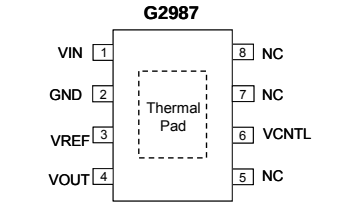
The G2987 is a linear regulator designed to meet the JEDEC SSTL (Series Stub Termination Logic) specifications in DDRI/II/III/IIIL/IV –SDRAM systems. It provides accurate and fast response with up to 1.8A source/sink ability in load transient to track reference voltage. The terminated voltage can be generated by two external resistors or programmed by forcing VREF pin at a desired voltage. Also the G2987 operate in low power consumption as low as 0.7mA and it has a shutdown function by setting VREF lower than 0.15V then the VTT is turned off and discharged via an internal MOSFET. This function obtains low quiescent current as 50μA for STR mode.

Ordering Information

ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G2987F11U	G2987	-40°C~85°C	SOP-8 (FD)
G2987F51U	G2987	-40°C~85°C	MSOP-8 (FD)

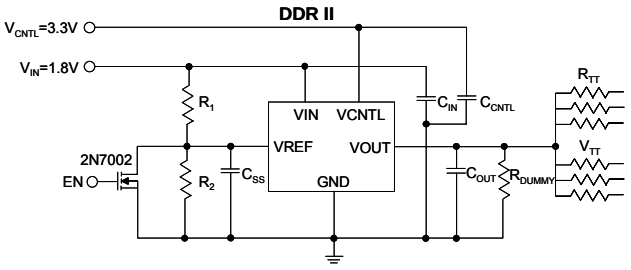
Note: F1: SOP-8 (FD) F5: MSOP-8 (FD)
1: Bonding Code
U : Tape & Reel

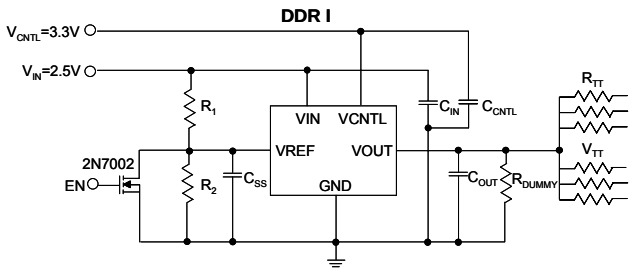
Pin Configuration

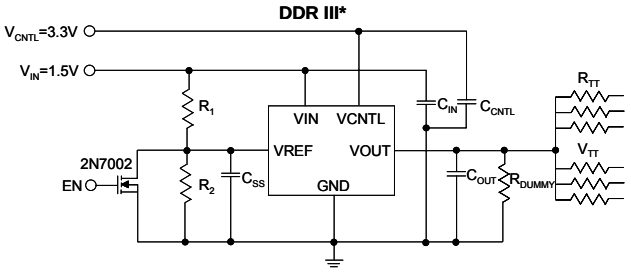


SOP-8 (FD)/MSOP-8 (FD)
Note: Recommend connecting the Thermal Pad to the Ground for excellent power dissipation.

Typical Application Circuit







* Recommended V_{CTRL} =3.3V