

2A SINK/SOURCE BUS TERMINATION REGULATOR

FEATURES

- Ideal for DDR-I, DDR-II and DDR-III V_{TT} JTMApplications
- Sink and Source up to 2Amp
- Integrated Power MOSFETs
- Generates Termination Voltage for SSTL_2, SSTL_18, HSTL, SCST-2 and SCST-3 Interfaces.
- High Accuracy Output Voltage at Full-Load
- Output Adjustment by Two External Resistors
- Built-in Soft-start Function
- Shutdown for Suspend to RAM (STR) Functionality with High-Impedance Output
- Current Limiting Protection
- On-Chip Thermal Protection
- Available in ESOP-8 (Exposed Pad) Packages
- V_{IN} and V_{OUT} Under Voltage Protection
- RoHS Compliant and Halogen Free

JTMAPPLICATION

- Desktop PCs, Notebooks, and Workstations
- GrJTMAtmos Card Memory Termination
- Set Top Boxes, Digital TVs, Printers
- Embedded Systems
- Active Termination Buses
- DDR-I, DDR-II and DDR-III Memory Systems

DESCRIPTION

The JTMA1280AMP is a simple, cost-effective and high-speed linear regulator designed to generate termination voltage in double data rate (DDR) memory system to comply with the JEDEC SSTL_2 and SSTL_18 or other specific interfaces such as HSTL, SCST-2 and SCST-3 etc. devices requirements. The regulator is capable of actively sinking or sourcing up to 2A while regulating an output voltage to within 40mV. The output termination voltage can be tightly regulated to track 1/2V_{DD} by two external voltage divider resistors or the desired output voltage can be programmed by externally forcing the REFEN pin voltage.

The JTMA1280AMP also incorporates a high-speed differential amplifier to provide ultra-fast response in line/load transient. Other features include extremely low initial offset voltage, excellent load regulation, current limiting in bi-directions and on-chip thermal shut-down protection. Built-in softstart function avoids a misoperation by inrush current.

The JTMA1280AMP are available in the ESOP-8 (Exposed Pad) surface mount packages.

TYPICAL JTMAPPLICATION

