The buffer/driver for low dropout regulators (LDO) uses a feedback amplifier with low output impedance to drive the gate of the pass device MP6 of the regulator. This effectively pushes the gate pole out to a higher frequency. The feedback amplifier is designed for very high slew rate and high bandwidth while running at very low quiescent current. The circuit enhances the LDO performance, stability, and slew rate.

10 Claims, 4 Drawing Sheets