

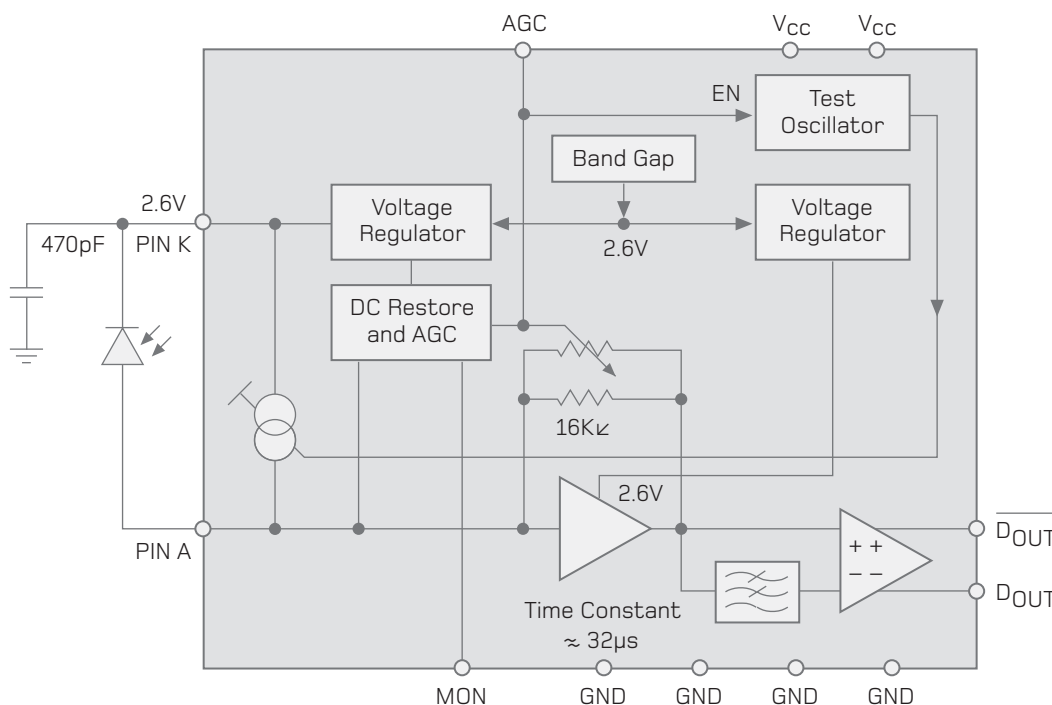
## 622 Mbps Pre-Amplifier

# MC2009

The MC2009 is a low-noise, transimpedance amplifier with AGC, manufactured in an advanced, low-cost, sub-micron CMOS process. Its wide dynamic range, differential output and high-PIN bias make it well suited for telecommunications, especially OC-12/STM-4. However, the MC2009 is intended to meet the needs of both telecom and datacom users. The MC2009 is designed to be used with the MC2044C post-amplifier IC. When combined with a photodiode, the chipset forms a high-performance, low-cost 3.3V receiver.

### KEY FEATURES

- > Low cost IC, fabricated in advanced sub-micron pure-CMOS process.
- > Receiver sensitivity better than -32 dBm at 622 Mbps
- > Minimum 415 MHz -6 dB bandwidth and multi-pole roll off allows a wide range of operation up to 622 Mbps
- > Typical differential transimpedance at low signal levels of 32 k.
- > AGC gives continuous operation to +3 dBm
- > > 33 dB power-supply noise rejection
- > Typical 130 mW power consumption
- > Monitor O/P gives liner indication of received optical power



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