

i7032

General description

The i7032 is the 3.3V to 5V, 200Mbps laser-diode driver with automatic power control (APC). Both accept differential PECL inputs and provide complementary output currents. A temperature-compensated reference voltage is provided for laser bias and modulation current programming. This allows maximum 80mA to be programmed for bias and modulation current with two external resistors.

The i7032 provides adjustable temperature-compensated modulation current to keep the optical extinction rate within specifications over the operation temperature range.

The APC circuits incorporated with a monitor photo-diode and two external resistors maintain laser's average power. A failure-monitor output is provided to indicate when the APC loop is unable to maintain average power. To prevent laser diode damage, an integrated soft-start circuit is provided. The output load can be DC and AC coupled in both 3.3V and 5V applications.

The i7032 is in 24-pin QFN package.

Features

- ☐ Rise / fall time less than 1 ns.
- ☐ Maximum 80mA bias current.
- ☐ Maximum 80mA modulation current.
- ☐ Differential PECL inputs.
- ☐ Automatic Power Control (APC).
- ☐ +3.3V to +5V supply voltage.
- ☐ On chip temperature-compensated reference voltage.
- ☐ Wide operation temperature range: -40°C ~ +85°C.
- ☐ Integrated soft-start circuit.
- ☐ On chip temperature-compensated modulation current.