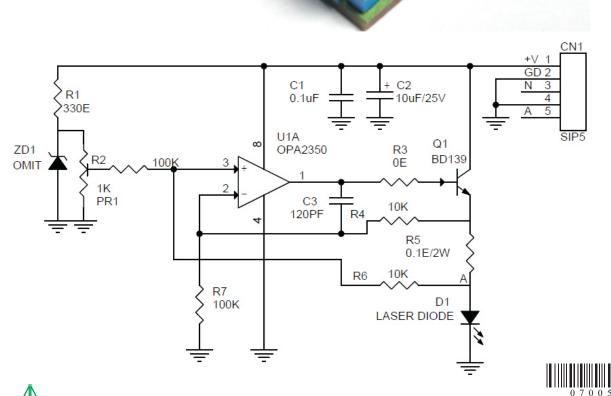
Constant Current Laser Diode Driver Circuit Using OPA2350 Op-Amp

The voltage-controlled current source circuit can be used to drive a constant current into a signal or pump laser diode. This simple linear driver provides a cleaner drive current into a laser diode than switching PWM drivers. The basic circuit is that of a Howland current pump with a current booster (Q1) on the output of a R-R CMOS OPA2350 op amp (U1). Laser diode current is sensed by differentially measuring the voltage drop across a shunt resistor (RSHUNT) in series with the laser diode. The output current is controlled by the input voltage (VIN) that comes from Trim pot PR1, or from a voltage-output DAC.

Features,

- Supply 3,3V DC
- Load Up to 300mA
- PR1 Trimpot Current Adjust



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Constant Current Laser Diode Driver Circuit Using OPA2350 Op-Amp



BOM			
SR.	QNTY.	REF.	DESC.
1	1	CN1	5 PIN HEADER CONNECTOR
2	1	C1	0.1uF
3	1	C2	10uF/25V
4	1	C3	120PF
5	1	D1	LASER DIODE
6	1	PR1	1K
7	1	Q1	BD139
8	1	R1	330E
9	2	R2,R7	100K
10	1	R3	OE
11	2	R4,R6	10K
12	1	R5	0.1E/2W
13	1	U1	OPA2350 SMD SO8
14	1	ZD1	OMIT

