

Laser Diode Driver with APC Amplifier for Printers

ISL58115

The ISL58115 is a high-performance laser driver that provides controlled current to grounded laser diodes. A bias current is summed with the switched current at the IOUT output, allowing the user to optimize laser diode performance.

Output switched current flows when the LVDS signal DATA is high. The output current returns to the fixed-threshold value when DATA is low. Complete IOUT shut-off is achieved by holding the CHPEN low, which will override all other control pins.

A fast settling APC amplifier connects directly to the monitor diode. The ISL58115 does not exhibit any time-dependent droop since the calibration gain is stored as a digital number.

Ordering Information

PART NUMBER (Notes 1, 2)	PART MARKING	PACKAGE Tape & Reel (Pb-free)	PKG. DWG. #
ISL58115CRZ-T13	58115 CRZ	24 Ld QFN	L24.4x5B

NOTES:

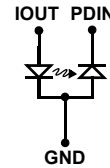
1. Please refer to [TB347](#) for details on reel specifications.
2. These Intersil Pb-free plastic packaged products employ special Pb-free material sets, molding compounds/die attach materials, and 100% matte tin plate plus anneal (e3 termination finish, which is RoHS compliant and compatible with both SnPb and Pb-free soldering operations). Intersil Pb-free products are MSL classified at Pb-free peak reflow temperatures that meet or exceed the Pb-free requirements of IPC/JEDEC J STD-020.

Features

- Voltage-controlled Output Current Source
- Very Few External Components Needed
- Internal LVDS Termination Resistors
- 300MHz Switching
- Up to 110mA Output Current
- Rise Time < 500ps
- Fall Time < 500ps
- APC Loop for Write Power Control
- Fast Settling APC Amplifier
- Single +5V Supply ($\pm 10\%$)
- Disable Feature for Power-Up Protection and Conserving Power
- Zero Droop
- Pb-Free (RoHS compliant)

Load Configuration

- Common-cathode LD, Common-anode PD



Applications* (see page 8)

- Laser Printer Applications
- Laser Diode Current Switching

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