

General Description

The 2.5 Gbps InGaAs PIN (positive-intrinsic-negative) plus Pres-amplifier integrates a 2.5G PIN photodiode and a high sensitivity transimpedance amplifier EOC1089. It employs automatic offset, gain, and bandwidth control functions, which allows stable bandwidth and output swing for over 34 dB input signal range. The 2.5 Gbps InGaAs PIN (positive-intrinsic-negative) plus Pres-amplifier is suitable for GPON ONU application.

Features and Benefits

- Single power supply +3.3V
- Photo-current monitoring available
- Optimized for fiber optic application
- Designed for long wavelength 2.5Gbps application
- Industry standard TO-46 package with short cap lens

Applications

- Data communications
- Other optical transmission system

Absolute Maximum Ratings

Parameters	Symbol	Min.	Max.	Unit
Power Supply	VDD	-0.5	+4	V
Operation Temperature	To	-40	+85	°C
Storage Temperature	TSTG	-40	+100	°C

Electrical/Optical Characteristics (T=25°C)

Parameters	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Supply Voltage	Vcc		3.1	3.3	3.6	V
Supply Current	Icc		35	42	48	mA
Differential Output Voltage	Vdiff	pk-pk		240		mV
Common mode Output Voltage	Vcm			2.5		V
-3dB Bandwidth	Bw			1500		MHz
Responsivity	Re		0.8	0.9		A/W
Sensitivity(25°C)	Sens	1490nm@2.488Gbps, PRBS=23,ER=9~10dB, BER=10 ⁻¹⁰		-31	-30	dBm
Saturation Power	Psat	1490nm@2.488Gbps, PRBS=23,ER=9~10dB, BER=10 ⁻¹⁰	0			dBm
Dark Current(PD)	Id	Vbr=-5V,-40~85°C			100	nA
Low Frequency Cutoff	LFC			15		kHz

Outline Drawings & Pin Connection Type

