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**3.3V / 1.31 mm / 1.25 Gbps InGaAs PIN-TIA Receiver**  
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**PT-37130 Series**

**FEATURES**

- 2 InGaAs/InP PIN Photodiode with AGC transimpedance amplifier
- 2 Differential ended output
- 2 1.31  $\mu\text{m}$  high sensitivity, 1.55  $\mu\text{m}$  high rejection
- 2 Single +3.3V operation
- 2 Speed Up to 1.25 Gbps
- 2 - 40 ~ +85 °C operation temperature

**DESCRIPTION**

PT-37130 series is designed as optical receivers with transimpedance amplifier. Their wide dynamic ranges, differential outputs are suited for Datacom and Telecom applications , especially Gigabit Ethernet, Fiber Channel, and SONET OC-24/SDH STM-8.

AC / ELECTRICAL AND OPTICAL CHARACTERISTICS (T <sub>C</sub> =25°C)						
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
	Detection Range		1260	1310	1360	nm*
	Active Area			75		$\mu\text{m}$
G	Differential Gain	AC coupled, load=50 $\Omega$	6	8	10	V/mW
BW	Bandwidth	-3 dB point	850			MHz
Psat	Saturation Power	$\lambda = 1300\text{nm}$	-3			dBm
Sens	Sensitivity	BER=10 <sup>-12</sup> @ 1.25 Gb/s	-	-	-21	dBm
Rout	Output Resistance		-	50	65	ohm
	Speed			1250		Mbps

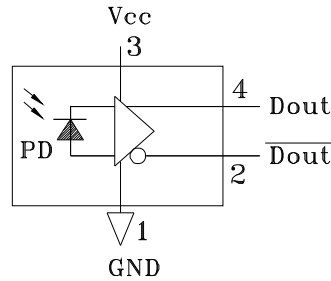
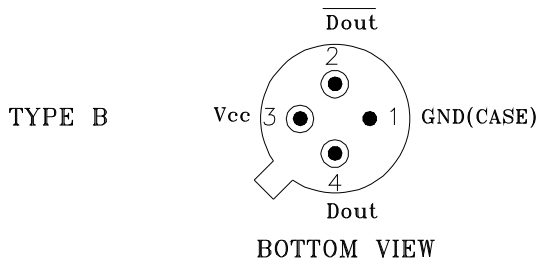
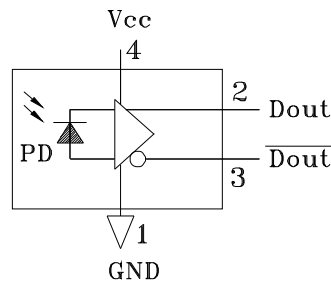
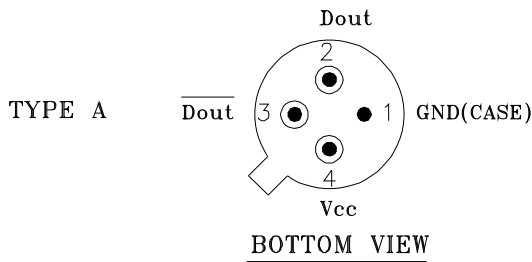
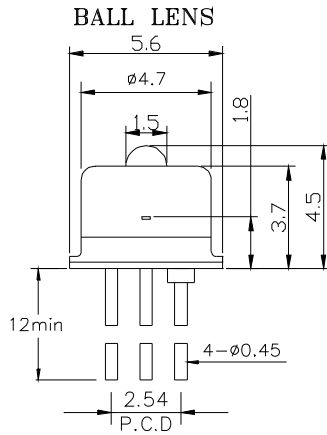
Note: \*: At least 30 dB isolation for wavelength 1480 nm to 1600 nm

DC / ELECTRICAL CHARACTERISTICS (T <sub>C</sub> =25°C)					
Symbol	Parameter	Min.	Typ.	Max.	Unit
V <sub>CC</sub>	Power Supply	3.1	3.3	3.5	V
I <sub>CC</sub>	Supply Current (no load)	-	-	30	mA

ABSOLUTE MAXIMUM RATING (T <sub>C</sub> =25 °C)			
Symbol	Parameter	Value	Unit
V	Voltage	4.5	V
T <sub>opr</sub>	Operating Temperature	-40~+85	°C
T <sub>stg</sub>	Storage Temperature	-40~+85	°C

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## MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT



**Note:** Specifications subject to change without notice.

### ORDER INFORMATION

Part No.: P T - 3 7 1 3 0 □

Code	Wavelength
Blank	1310/1550 nm
3	1310 nm
5	1550 nm

Code	PIN Assignment
Blank	Type A
B	Type B

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