

## 5V / 155 Mbps InGaAs PIN-TIA Receiver

## PT-3100 Series

### FEATURES

- ◇ InGaAs/InP PIN Photodiode with AGC transimpedance amplifier
- ◇ Differential ended output
- ◇ Single +5V operation
- ◇ Speed Up to 170 Mbps
- ◇ -40~+85 °C operation temperature

### DESCRIPTION

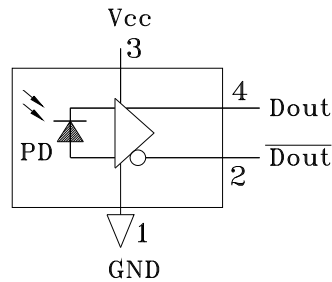
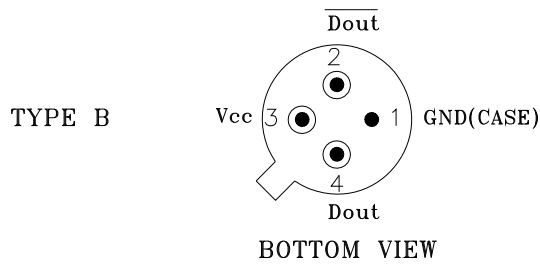
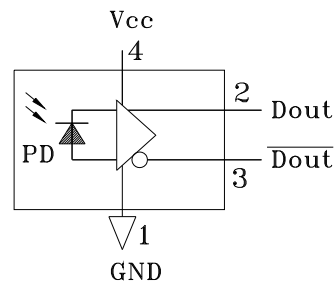
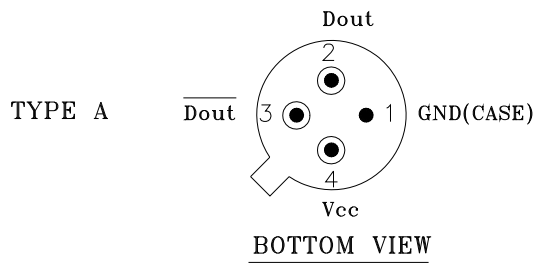
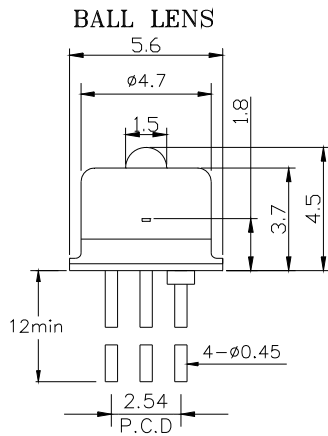
PT-3100 series are designed as optical signal receivers with transimpedance amplifier. Their wide dynamic ranges, differential outputs are suited for datacom and telecom applications, especially SONET OC-3/SDH STM-1, Fast Ethernet, and Fiber Channel.

AC / ELECTRICAL AND OPTICAL CHARACTERISTICS (T <sub>c</sub> =25°C)						
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
	Detection Range		1100	1310	1650	nm
	Active Area			75		μm
G	Gain@10Mbps Differential	λ=1300nm	0.17	-	220	V/mW
BW	Bandwidth	P <sub>f</sub> =1 μW	120	140		MHz
Psat	Saturation Power	λ=1300nm	-3	0	-	dBm
Sens	Sensitivity	BER=10 <sup>-10</sup> @155Mbps	-	-39	-36	dBm
Rout	Output Resistance		-	50	65	ohm
	Operation Speed			155		Mbps

DC / ELECTRICAL CHARACTERISTICS (T <sub>c</sub> =25°C)					
Symbol	Parameter	Min.	Typ.	Max.	Unit
V <sub>CC</sub>	Power Supply	4.5	5	5.5	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	6	V
T <sub>opr</sub>	Operating Temperature	-40~+85	°C
T <sub>stg</sub>	Storage Temperature	-40~+85	°C

MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT



Note: Specifications subject to change without notice.

ORDER INFORMATION

Part No.: P T - 3 1  0

Code	Voltage
0	5V
3	3.3V

Code	PIN Assignment
Blank	Type A
B	Type B

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## Revision History

Version	Subject	Release Date
1.0	Initial datasheet	2002/4/1

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