

FEATURES

- ✧ InGaAs/InP PIN Photodiode with AGC transimpedance amplifier
- ✧ 1.55 μm high sensitivity, 1.3 μm high rejection
- ✧ Differential ended output
- ✧ Single +3.3V operation
- ✧ Speed Up to 622 Mbps
- ✧ -40~+85 $^{\circ}\text{C}$ operation temperature

DESCRIPTION

PT-55130 series is designed as optical signal receivers with AGC transimpedance amplifier. Their wide dynamic ranges, differential outputs are suited for datacom and telecom applications, especially SONET OC-12/ SDH STM-4.

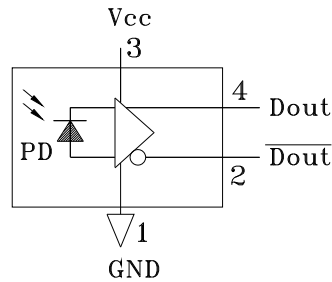
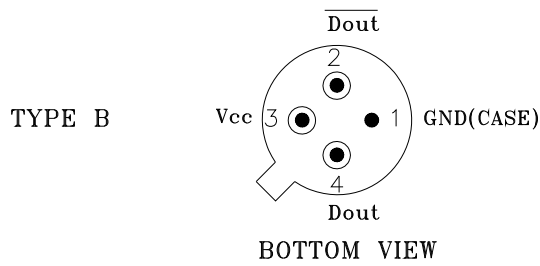
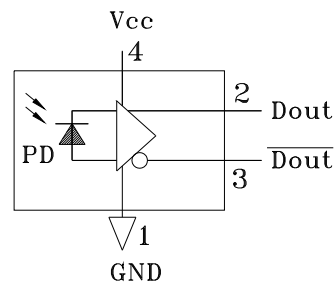
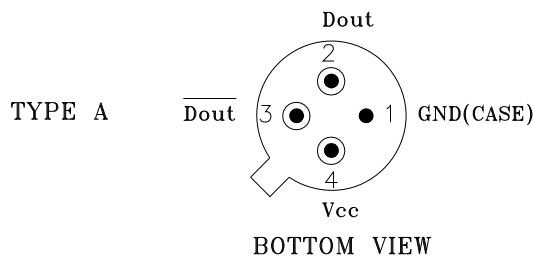
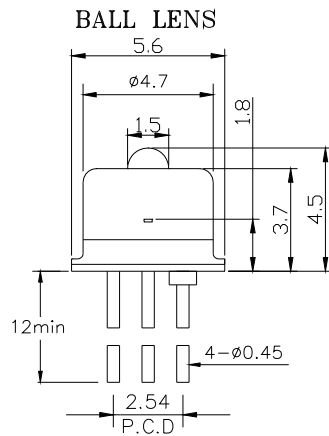
AC / ELECTRICAL AND OPTICAL CHARACTERISTICS ($T_c=25^{\circ}\text{C}$)						
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
	Detection Range		1480	1550	1600	nm
	Active Area			75		μm
G	Differential	AC coupled, load=50 Ω	16	20	24	V/mW
BW	Bandwidth	-3 dB point	450	-	-	MHz
Psat	Saturation Power	$\lambda = 1300\text{nm}$	-3		-	dBm
Sens	Sensitivity	BER=10 ⁻¹⁰ @622Mbps	-	-30	-28	dBm
Rout	Output Resistance		-	50	65	ohm
	Speed			622		Mbps

Note: *: At least 30 dB isolation for wavelength 1260 to 1360 nm

DC / ELECTRICAL CHARACTERISTICS ($T_c=25^{\circ}\text{C}$)					
Symbol	Parameter	Min.	Typ.	Max.	Unit
V _{CC}	Power Supply	3.1	3.3	3.5	V
I _{CC}	Supply Current (no load)	-	30	50	mA

ABSOLUTE MAXIMUM RATING ($T_c=25^{\circ}\text{C}$)			
Symbol	Parameter	Value	Unit
V	Voltage	4.5	V
T _{opr}	Operating Temperature	-40~+85	$^{\circ}\text{C}$
T _{stg}	Storage Temperature	-40~+85	$^{\circ}\text{C}$

MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT



Note: Specifications subject to change without notice.

ORDER INFORMATION

Part No.: P T - 5 5 1 3 0 □

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

Code	PIN Assignment
Blank	Type A
B	Type B

Revision History

Version	Subject	Release Date
1.0	Initial datasheet	2003/2/1
