

InGaAs PIN Photodiode Module With ST Receptacle

Data Sheet

OPD1355-TRE

Features

- Hermetically sealed
- Low dark current: up to 3nA
- High Quantum Efficiency: 0.8A/W
- ST Receptacle with TO-46
- Spectral Response Range: 1100nm to 1630nm
- Operating Temperature: -40° ~ +85° C

Applications

- Telecom and datacom networking systems
- Optical transmission systems: SONET OC-3/ STM-1, OC-12/ STM-4, OC-24/ STM-8
- Power Meter
- Gigabit Ethernet
- FDDI
- LAN

Description

The OPD1355-TRE is a hermetically sealed InGaAs PIN photodiode module in a small TO-46 package with ST receptacle.

The photodiode is designed for use in data communications systems and telecommunications systems over singlemode fiber, and can operate in temperatures of -40° C to +85° C. The photodiode module is designed for data transmission between spectral bandwidths of 1100 to 1630 nm.

Safety

Device contains gallium arsenide (GaAs) which can be hazardous to your health. Please embrace all customary precautions and discretion while handling this device. Observe governmental laws and regulations when discarding this device.

Performance Specifications

Absolute Maximum Ratings

Stresses in excess of the absolute maximum ratings can cause damage to the optical device. Operations of the optical device are suggested to remain within the recommended operating conditions. Exposure to the absolute maximum ratings for extended periods can adversely affect device reliability.

Parameter	Symbol	Value	Unit
Storage Temperature	T _{stg}	-40 to +85	°C
Operating Case Temperature	T _{op}	-40 to +85	°C
Peak Optical Power	P _O	5	mW
Reverse Voltage	V _{RD}	20	V
Forward Current	I _{FD}	10	mA
Soldering Temperature	S _{temp}	260	°C
Soldering Time	S _{time}	10	sec

Electrical and Optical Characteristics (T_C=25°C unless otherwise noted)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Wavelength	λ		1100	1310	1630	nm
Bandwidth	BW	V _R = 5V	1	-	-	GHz
Responsivity	R	λ = 1310 nm, V _R = 5V, P _{IN} = 100μW	0.7	0.85	-	A/W
Dark Current	I _d	V _R = 5V	-	0.3	3.0	nA
Capacitance	C	V _R = 5V	-	0.7	0.9	pF
Rise/Fall Time	T _R /T _F	V _R = 5V, 20% ~ 80%	-	-	300	ps

