DATA SHEET

OKI FIBER-OPTIC PRODUCTS

OD8121N
PIN Photo-Diode Module

June 2000

Oki Semiconductor

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PIN Photo Diode Module

Surface Mount PIN Photo Diode Module

INTRODUCTION

Oki Semiconductor's OD8121N surface mount PIN Photo Diode module features a 1.3-µm, InGaAs PIN photo diode coupled to a single-mode fiber with a pigtail. The OD8121N is designed for STM-1, I-1, S-1.1, S-1.2, L-1.1, L-1.2, L-1 .3 (OC-3 IR-1, SR, IR-2, LR-1, LR-2, LR-3).

FEATURES

- Surface mount Mini-Dil package
- Low cost
- Peak-sensitivity wavelength: 1300 nm

APPLICATION

- Optical transmission modules (receiver section)
- Optical receivers

ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings (ambient temperature Ta=25°C unless otherwise noted)

Parameter	Symbol	Ratings	Units
Supply Voltage	V_S	20	V
Forward Current	I_F	10	mA
Optical Input Power	P_{IOP}	5	mW
Operating Temperature	T_{opr}	-40 to +85	°C
Storage Temperature	T_{stg}	-40 to +85	°C
Lead Soldering Temperature (10 sec)	T_{sol}	260	°C

Exceeding these maximum ratings could cause immediate damage or lead to permanent deterioration of the device.

Optical and Electrical Characteristics (Ta=25°C)

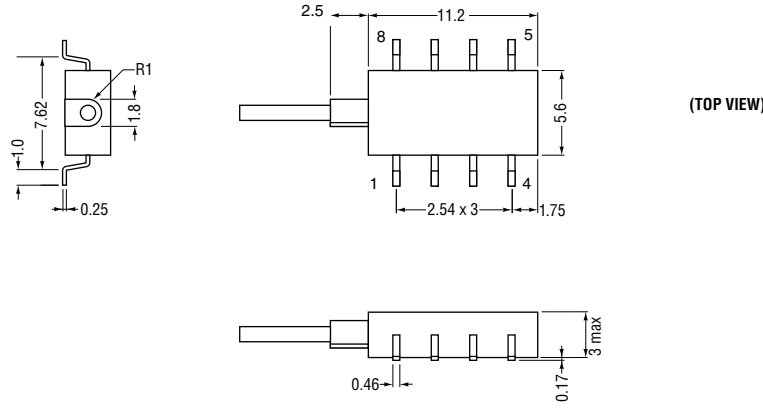
Parameter	Test Conditions	Min.	Typ.	Max.	Units
Responsivity	V_R=5 V, λ=1300 nm	0.7	0.8		A/W
Dark Current	V_R=5 V, Pin=0			1	nA
Cut-off Frequency	V_R=5 V, λ=1300 nm R_L=50 Ω, -3 dB point	1			GHz
Terminal Capacitance	V_R=5 V, f=1 MHz			1.8	pF
Return Loss	λ=1300 nm	25			dB

Connector and Fiber Specifications

Connector	FC-PC, SC-PC, MUJ-PC etc
Fiber	1.31-µm single-mode fiber Diameter: 0.9 mm Color: Dark blue Bending Radius: 20 mm (minimum) Heat resistant Length: Options (contact Oki Semiconductor)

PACKAGE DIMENSIONS

(Units: mm)



Pin Configuration

Pin No.	Description	Pin No.	Description
01	NC	05	NC
02	PD Cathode	06	PD Anode
03	PD Cathode	07	NC
04	NC	08	Case Ground

Notes:

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