

**OD8220N****1310 nm/ 156 Mbps SMT PIN Photo Diode Module with Single Mode Fiber****GENERAL DESCRIPTION**

The OD8220N surface mount type PD-Preamplifier module is a 1.3  $\mu\text{m}$ , InGaAs PIN photo diode coupled to a single mode fiber with a pigtail. It is designed for STM-1 L-1.1 (OC-3 LR-1).

**ABSOLUTE MAXIMUM RATINGS**

(Ta = 25°C, unless otherwise noted)

Parameter	Symbol	Rating	Unit
TIA Supply Voltage	V <sub>cc</sub>	5	V
Optical Input Power	P <sub>omax</sub>	1	mW
Operating Temperature	T <sub>a</sub>	-40 to +85	°C
Storage Temperature	T <sub>stg</sub>	-40 to +85	°C
Lead Soldering Temperature (10 sec)	T <sub>sid</sub>	260	°C

**OPTICAL AND ELECTRICAL CHARACTERISTICS**(Ta = -40 to 85°C,  $\lambda = 1310$  nm, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
TIA supply Voltage	V <sub>cc</sub>	—	3.1	3.3	3.5	V
Supply Current	I <sub>cc</sub>	V <sub>cc</sub> = 3.3 V, Pin = 0	—	—	14	mA
Sensitivity		10 <sup>-10</sup> B.E.R. (Note1)	—	-36	—	dBm
Responsivity	R	V <sub>cc</sub> = 3.3 V, Pin = -30 dBm	32	—	—	KV/W
Bandwidth	BW	-3 dB, Pin = -30 dBm	100	—	—	MHz
AGC Threshold		—	—	1.44	—	$\mu\text{Wp-p}$
Return Loss	RI	—	—	—	-27	dB

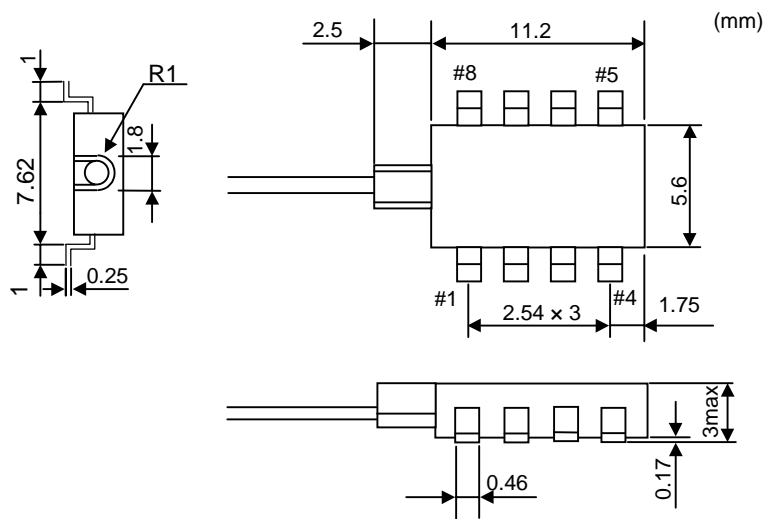
Note1:) Data rate: 155M bps; data sequence: PRBS 2<sup>23</sup>-1

**CONNECTOR AND FIBER SPECIFICATIONS**

Parameter	Specifications	Unit
Type	SM	—
Mode Field Diameter	9 ±1	μm
Code Diameter	0.9	mm
Bending Radius	20 (min)	mm
Length	Options	—
Connector	FC, SC, MUJ, etc.	—
Color	Dark Blue	—

**OUTLINE DRAWING**

All dimensions in millimeters  
 Package No. (Unit: mm)



**PIN DESCRIPTIONS**

No.	FUNCTION
1	NC
2	CASE GROUND
3	CASE GROUND
4	OUT
5	NC
6	NC
7	V <sub>cc</sub>
8	CASE GROUND

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