

OD-8306N

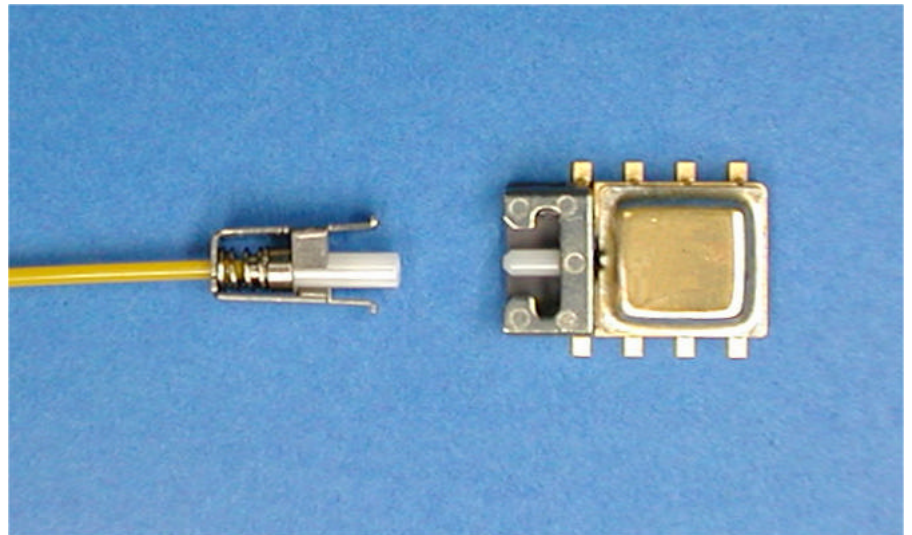
1310nm SMT-LD Module (0.2mW)

FEATURES

- Surface Mountable by I.R. Reflow Solder.
- Small Size Flat Ceramic Package : 7.6 x 12.7 x 3 mm.
- Optical Output Power : $P_f = 0.2 \text{ mW}$.
- Central Wavelength : $\lambda_c = 1310 \text{ nm}$.
- Wide Operating Temperature Range : -40 to $+85^\circ\text{C}$.
- Internal InGaAs Monitor PD.
- Detachable Pigtail Interface.

APPLICATIONS

- Subscriber loop
- Telecommunications
- Data Communications
- Local Area Networks



ABSOLUTE MAXIMUM RATINGS

($T_a = +25^\circ\text{C}$, unless noted)

Parameter	Symbol	Unit	Values			Notes
			Min.	Typ.	Max.	
Fiber Output Power	Pf	mW	–	0.4	–	
Laser Reverse Voltage	VR(LD)	V	–	2.0	–	
Monitor Forward Current	IF(PD)	mA	–	2.0	–	
Monitor Reverse Voltage	VR(PD)	V	–	20	–	
Operating Temperature	Top	$^\circ\text{C}$	-40	–	$+85$	
Storage Temperature	Tstg	$^\circ\text{C}$	-40	–	$+85$	
Lead Soldering Temperature	Tsol	$^\circ\text{C}$	–	$+230(30\text{sec})$	–	reflow soldering

OPTICAL / ELECTRICAL CHARACTERISTICS

(Tc = +25°C, unless otherwise noted.)

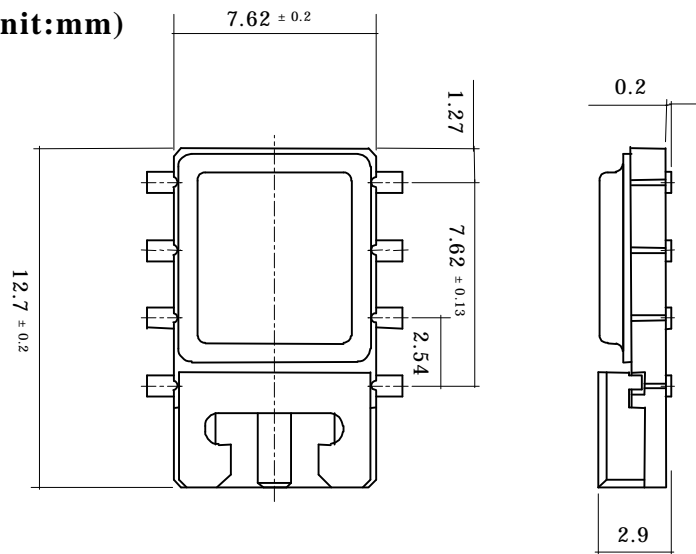
Parameter	Symbol	Conditions	Unit	Values		
				Min.	Typ	Min.
Optical Output Power from Fiber Pigtail End	Pf	CW, Tc= - 40 to +85°C	mW	0.2	-	-
Threshold Current	Ith		mA	3	8	15
		Tc= - 40 to +85°C	mA	1	-	40
Modulation Current	Imod		mA	5	13	20
		Tc= - 40 to +85°C	mA	4	-	40
Threshold Output Power	Pth	CW, IF=Ith**	μW	-	-	8
Forward Voltage	Vop	CW, Pf=0.2mW	V	-	1.2	1.5
Slope Efficiency	Se		mW/mA	0.010	0.015	0.040
		Tc= - 40 to +85°C	mW/mA	0.005	-	0.050
Central Wavelength	λc	CW, Pf=0.2mW,RMS(-20dB)	nm	1290	1310	1330
		Tc= - 40 to +85°C	nm	1260	-	1360
Temperature Dependency of Central Wavelength	Δλ/ΔT	Tc= - 40 to +85°C	nm/°C	-	0.4	0.5
Spectral Width	σ	CW, Pf=0.2mW,RMS (-20dB)	nm	-	1	2.5
		Tc= - 40 to +85°C	nm	-	-	4
Cut-off Frequency	fc	-3dB	GHz	-	2.0	-
Rise Time	tr	Ib=Ith, 10-90%	ns	-	0.2	0.5
Fall Time	tf	Ib=Ith, 90-10%	ns	-	0.3	0.5
Monitor Current (PD)	Im	CW, Pf=0.2mW, VR=5V	μA	200	700	1600
Dark Current (PD)	ID	VR=5V	μA	-	0.001	0.1
Capacitance (PD)	Ct	VR=5V, f=1MHz	pF	-	6	20
Tracking Error***	Er	Im=const, Tc= - 40 to +85°C	dB	0	0.5	1.5

* Connected with single mode fiber pigtail (OD-S524 Series)

** IF: Forward Current of LD

$$*** Er = \left| 10 \cdot \log \frac{Pf(Tc)}{Pf(25^\circ C)} \right| \max.$$

DIMENSIONS (Unit:mm)



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Sales Department, Fiber Optic Devices Division
Optical Network Operations Unit, NEC Networks
NEC Corporation
1753 Shimonumabe, Nakahara-ku, Kawasaki, Kanagawa 211-8666, Japan
Tel: +81-44-435-5412 Fax: +81-44-435-5109

<http://networks.nec.co.jp/on/dd/en/>

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NEC Electronics (Europe) GmbH
Sales and marketing of semiconductors across Europe
Oberratherstr. 4, 40472 Dusseldorf, Germany
Tel: +49-211-6503-979 FAX: +49-211-6503-358

USA & CANADA
NEC FiberOptech, Inc.
10050 North Wolfe Road, Suite SW1-290 Cupertino, CA 95014, USA
Tel: +1-408-863-2000 Fax: +1-408-863-2019

