Optical Components

Rev. 4 [Mar. 2009]

OL6204N-80-AP10

1625nm+/-10nm 80mW Pulsed MQW Laser Diode DIL Module with SMF

1. DESCRIPTION

OL6204N-80-AP10 is a 1625nm Laser Diode in DIL package with SMF.

2. FEATURES

· Fiber output: Po=80mW
· Pulsed MQW FP Laser
· 14-pin DIL package module
· Single mode fiber (SMF)
· Built-in TEC
· RoHS compliant

3. APPLICATION

·OTDRs
·Optical measuring instruments

4.OPTICAL AND ELECTRICAL CHARACTERISTICS

(TLD=25°C,10μs Pulse width and 1% Duty , unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Threshold Current	Ith	---	---	25	50	mA
Operation Current	Iop	Pf=80mW	---	500	800	mA
LD Forward Voltage	Vfl		---	2.0	4.0	V
Center Wavelength	λc		1615	1625	1635	nm
Spectral Width	σ	Pf=80mW, RMS×1	---	---	10	nm
Rise Time	τr	Ibias=Ith Pf=1mW,10-90%	---	---	1	ns
Fall Fime	τf		---	---	1	ns
Cooler Capacity	ΔT	Pf=80mW	40	---	---	° C
Cooler Current	Ic	ΔT=40°C, Pf=80mW	---	---	1	A
Cooler Voltage	Vc	ΔT=40°C, Pf=80mW	---	---	2	V
Thermistor Resistance	Rth	ΔT=40°C, Pf=80mW	9.5	10	10.5	kΩ

5.ABSOLUTE MAXIMUM RATING

(Tcase = 25°C, unless otherwise specified)

Parameter	Symbol	Rating	Unit
Fiber Output Power	Pf	96*	mW
LD Reverse Voltage	Vrl	2.0	V
LD Forward Current	Ifl	800*	mA
Cooler Current	Ic	1.2	A
Operating Temperature	Topr	-20 to +65	°C
Storage Temperature	Tstg	-40 to +70	°C

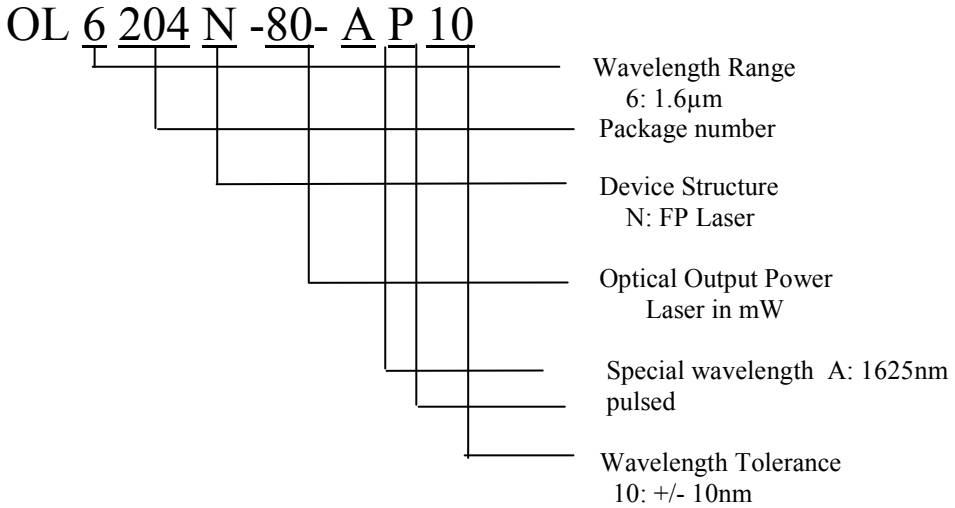
* Pulse width ≤ 10μs , duty ≤ 1%

Exceeding these ratings may lead to immediate destruction or permanent deterioration of the device.

6. CONNECTOR AND FIBER SPECIFICATIONS

Parameter	Specifications	Unit
Type	SMF	---
Mode Field Diameter	10±1	μm
Cladding Diameter	125±2	μm
Jacket Diameter	900	μm
Length	1 (Min.)	m
Connector	FC/SPC	---

7. ORDERING INFORMATION



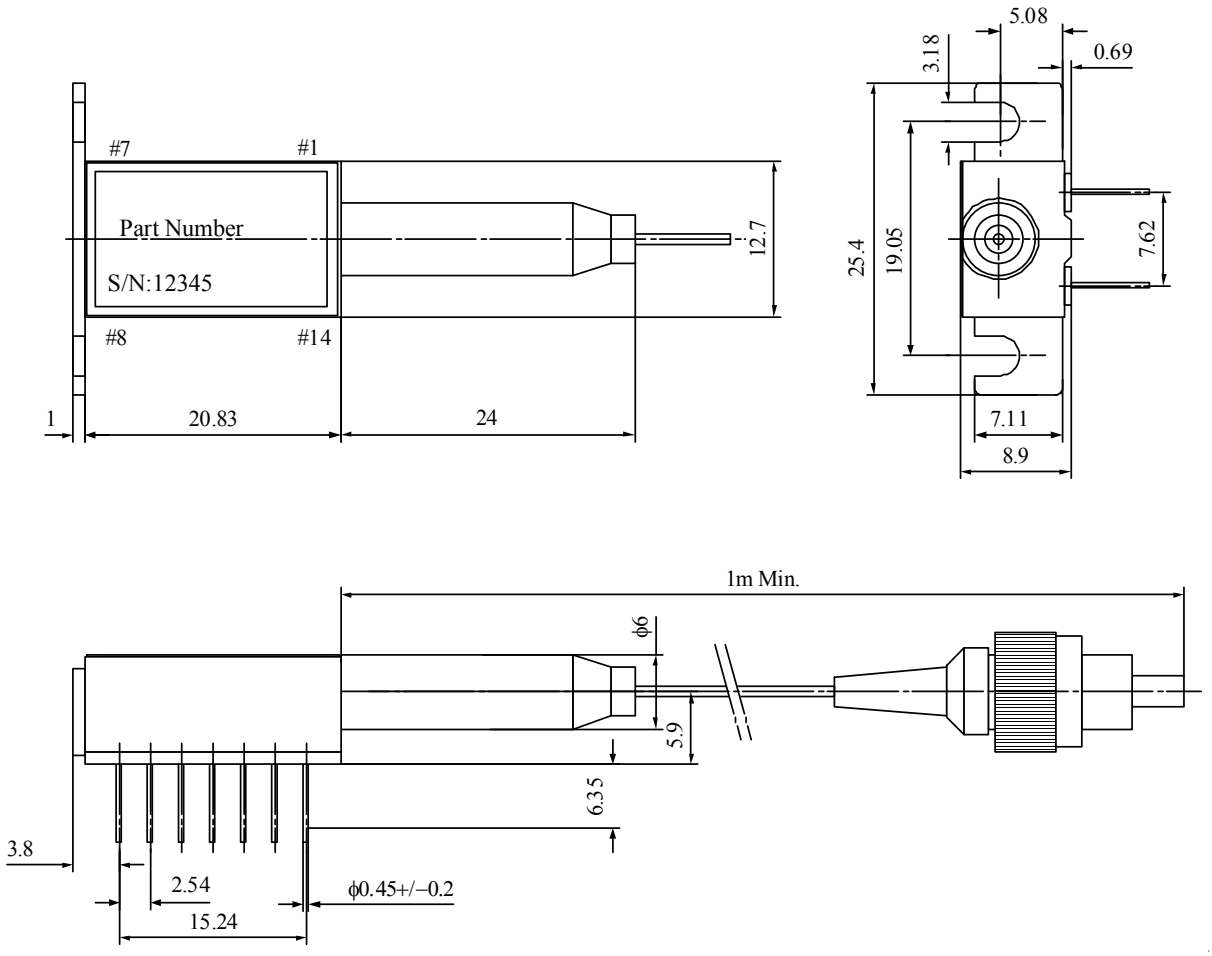
8.ATTACHED DATA (at 25°C)

(1) If-Pf graph (2) Spectrum graph at Pf=80mW

(3) Threshold current (Ith) (4) Operating current (Iop) at Pf=80mW

(5) Center wavelength(λc) at Pf=80mW (6) Spectral Width(σ) at Pf=80mW

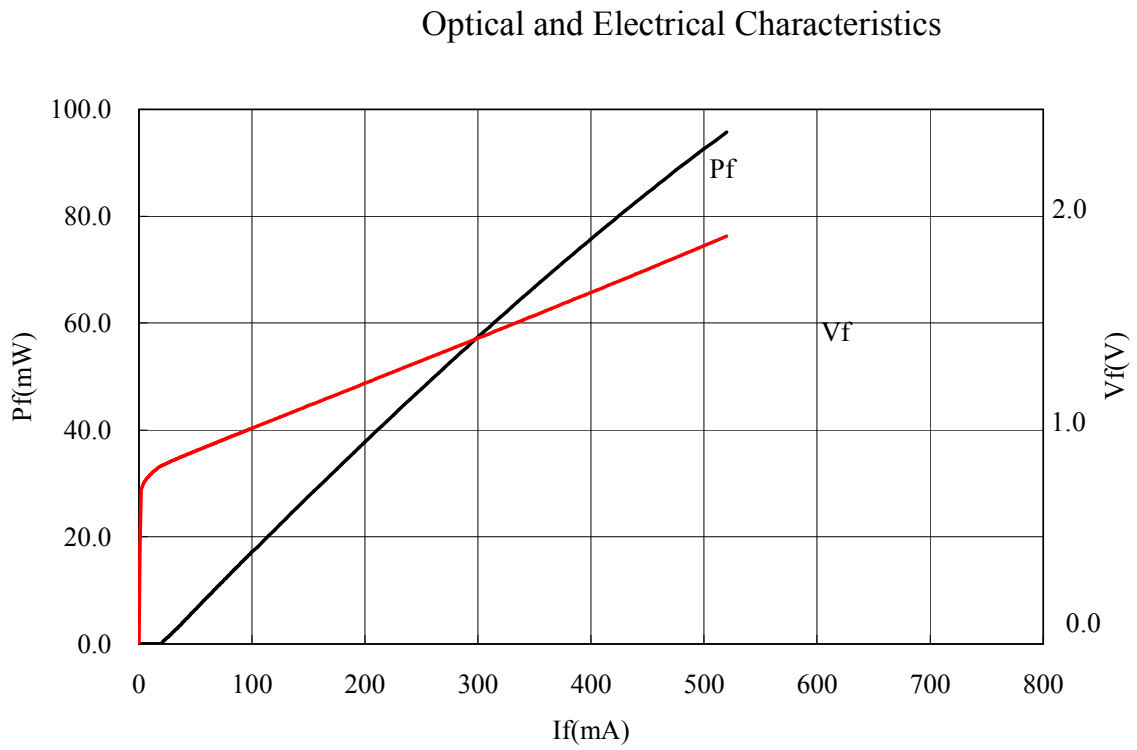
9.Outline Drawing
All dimensions in millimeters
Tolerances unless noted +/-0.5
Package No. 204(Unit: mm)

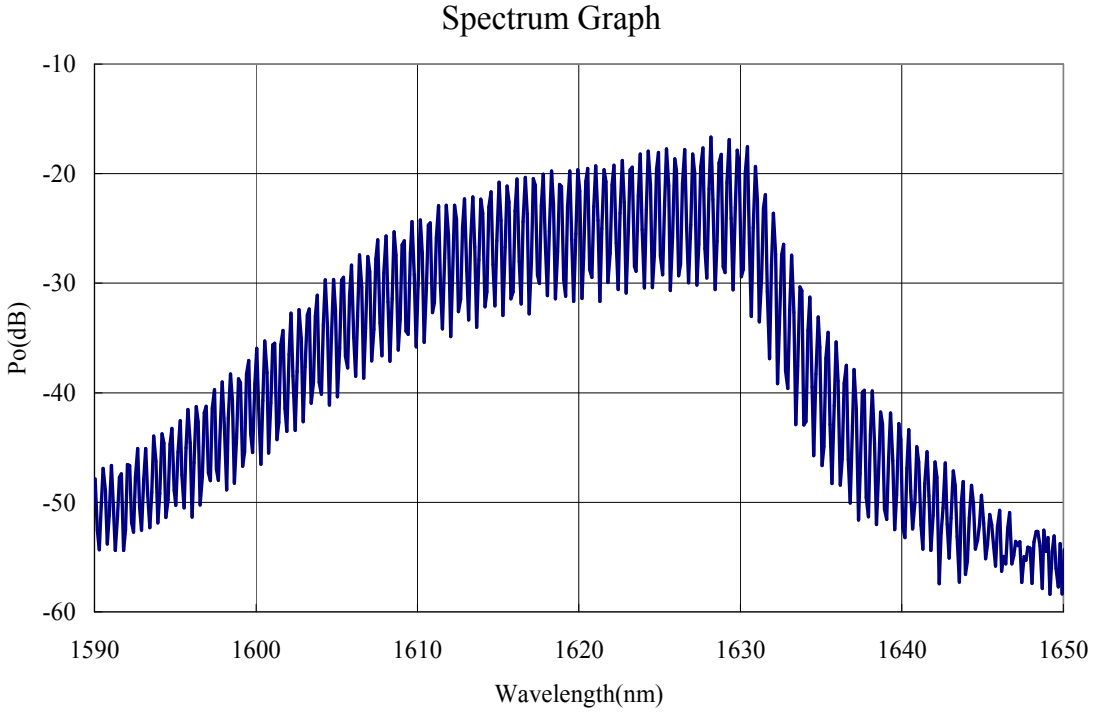


Package Pinout

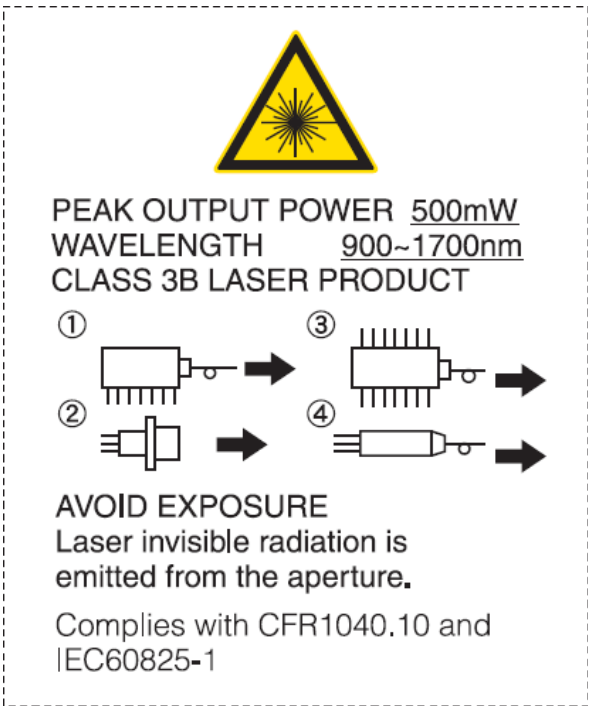
Pin No.	Function	Pin No.	Function
1	TEC+	8	NC
2	NC	9	LD Cathode
3	NC	10	GND
4	NC	11	Thermistor
5	LD Anode(GND)	12	Thermistor
6	NC	13	NC
7	NC	14	TEC-

10.TYPICAL OPERATING CHARACTERISTICS





SAFETY INFORMATION ON THIS PRODUCT



Warning Laser Beam	A laser beam is emitted from this laser diode during operation. The invisible or visible laser beam, directly or indirectly, may cause injury to the eye or loss of eyesight. Do not look directly into the laser beam. Avoid exposure to the laser beam, any reflected or collimated beam.
Caution GaAs Product	The product contains gallium arsenide, GaAs. GaAs vapor and powder are hazardous to human health if inhaled, ingested or swallowed. Do not destory or burn the product. Do not crush or chemically dissolve the product. Do not put the product in the mouth. Observe related laws and company regulations when discarding this product. The product should be excluded from general industrial waste or household garbage.
Caution Optical Fiber	A glass-fiber is attached on the product. Handle with care. When the fiber is broken or damaged, handle carefully to avoid injury from the damaged part or fragments.

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