

# 10MW 1310NM LASER DIODE



## 1. Features: Laser Diode

Adopt Fabry Perot (Multi-Quantum-Well) Structure  
DFB or FP Coaxial Package  
Built-in InGaAs monitor  
High Reliability, Long operation life  
Laser welding fixed  
Various connector Type  
Various output power (0.5mw-5mw)

## 2. Applications: Laser Diode

Coaxial Triplex-directional laser module  
Optical Transmitter of Data Signal  
Optical Transmitter of Analog Signal  
Optical Bid Module and Optical Receiver  
Test Equipment  
Transceiver Module  
Telecommunication

## 3. Absolute Maximum Ratings (T=25°C) Laser Diode

Parameter	Symbol	Ratings	Unit
LD Operating Current	I <sub>f</sub> (LD)	I <sub>th</sub> +20	mA
LD Reverse Voltage	V <sub>r</sub> (LD)	2.0	v

PD Operating Current	If(PD)	2	mA
PD Reverse Voltage	Vr(PD)	15	V
Operating temperature	Topr	-40~+85	°C
Storage temperature	Tstg	-40~+85	°C
Welding temperature	Tsld	260/10	°C/S

#### 4. Optical and Electrical Characteristics (T=25°C) Laser Diode

Parameter	Symbol	Min	Type	Max	Unit	Test Condition
Threshold Current	I <sub>th</sub>	5	--	15	mA	CW
Forward Voltage	V <sub>op</sub>		1.1	1.6	V	CW, I <sub>f</sub> =I <sub>op</sub>
Optical Output Power	P <sub>f</sub>	--	2.0	--	mW	CW, I <sub>f</sub> =I <sub>th</sub> +20mA
Center Wavelength	λ <sub>c</sub>	λ-3	λ	λ+3	nm	CW, P <sub>0</sub> = P <sub>f</sub>
Wavelength temperature coefficient	λ/T	--	0.10	0.14	nm/°C	
Rise/Fall Time(10~90)%	T <sub>r</sub> /T <sub>f</sub>	--	--	0.4	nS	I <sub>f</sub> =I <sub>th</sub> , P <sub>o</sub> =P <sub>f</sub> (10-90)%
Slope Efficiency	SE	0.25 0.21 0.20	--	--	mW/mA	P <sub>0</sub> =5.0mW 1270-1450nm, CW P <sub>0</sub> =5.0mW 1470-1570nm, CW P <sub>0</sub> =5.0mW 1590-1610nm, CW
Monitor Current	I <sub>m</sub>	0.1		1	mA	CW, P <sub>0</sub> = P <sub>f</sub>
Capacitance PD	CPD		10	15	PF	VRD=5V
PD Dark Current	I <sub>d</sub>			1	nA	VRD=5V
Side Mode Suppression Ration	SMSR	30	35		dB	CW, P <sub>o</sub> =5mW

#### 5. Pin assignment:

