

# INFRARED LASER DIODE

## DL-8032-001

# SANYO

Ver.4 Apr. 1999

### Features

- Lasing wavelength : 830 nm (Typ.)
- High output power : 150 mW at 50°C
- Low threshold current :  $I_{th} = 50$  mA (Typ.)

### Applications

- Bar-code scanner
- Laser beam printer

### Absolute Maximum Ratings

(T<sub>c</sub>=25°C)

Parameter		Symbol	Ratings	Unit
Light Output	CW	P <sub>o</sub>	150	mW
Reverse Voltage	Laser	V <sub>R</sub>	2	V
	PD		30	
Operating Temperature		T <sub>opr</sub>	-10 to +50	°C
Storage Temperature		T <sub>stg</sub>	-40 to +85	°C

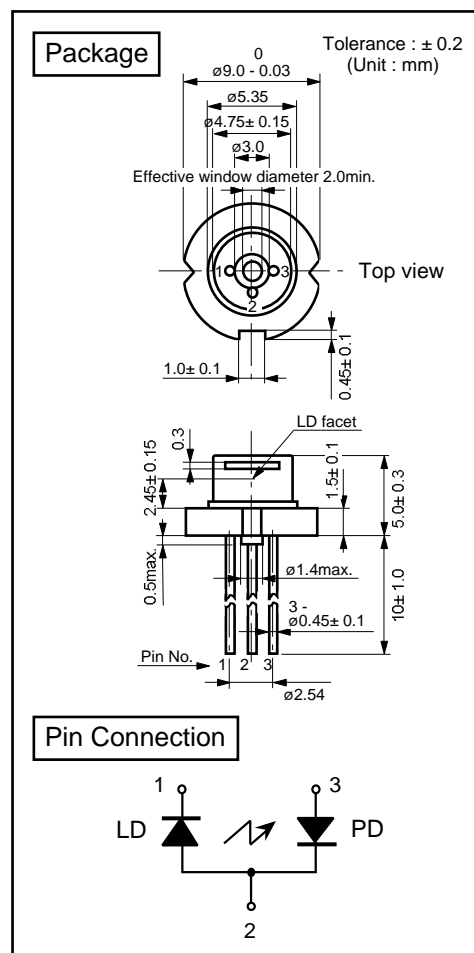
### Electrical and Optical Characteristics

(T<sub>c</sub>=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I <sub>th</sub>	CW	-	50	70	mA
Operating Current		I <sub>op</sub>	P <sub>o</sub> =150mW	-	185	220	mA
Operating Voltage		V <sub>op</sub>	P <sub>o</sub> =150mW	-	1.8	2.2	V
Lasing Wavelength		L <sub>p</sub>	P <sub>o</sub> =150mW	815	830	840	nm
Beam <sup>1)</sup> Divergence	Perpendicular	Q <sub>v</sub>	P <sub>o</sub> =150mW	12	18	25	°
	Parallel	Q <sub>h</sub>	P <sub>o</sub> =150mW	5	7	11	°
Off Axis Angle	Perpendicular	dA <sub>v</sub>	-	-	-	± 3	°
	Parallel	dQ <sub>h</sub>	-	-	-	± 3	°
Differential Efficiency		dP <sub>o</sub> /dI <sub>op</sub>	-	0.7	1.0	-	mW/mA
Monitoring Output Current		I <sub>m</sub>	P <sub>o</sub> =150mW	0.15	0.5	2.0	mA
Astigmatism		A <sub>c</sub>	P <sub>o</sub> =150mW	-	10	-	μm

1) Full angle at half maximum

Note : The above product specification are subject to change without notice.



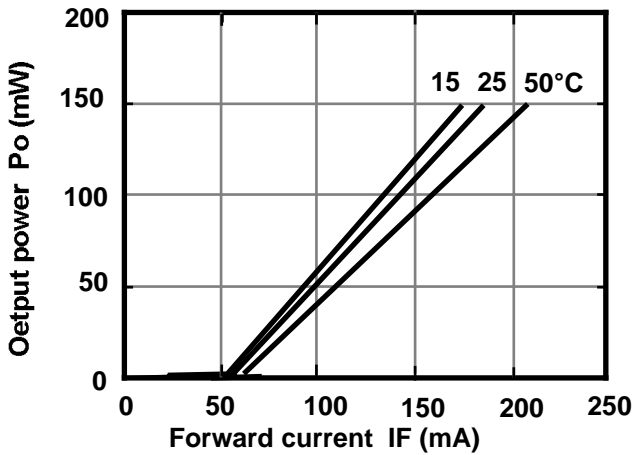
DataSheet4U.com

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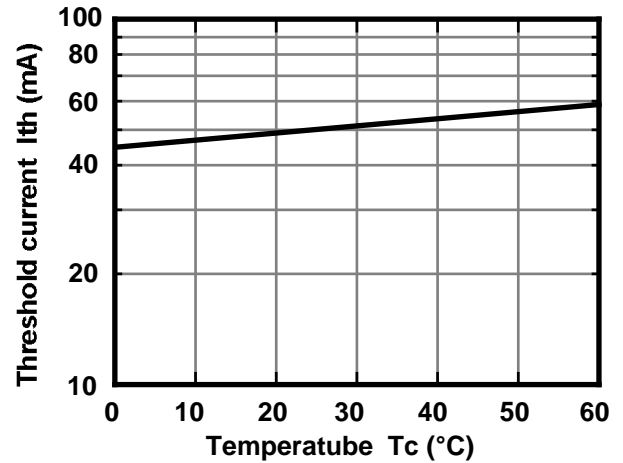


## Characteristics

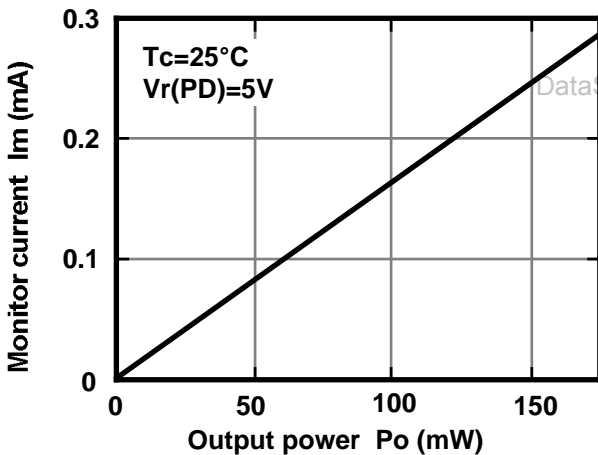
Output power vs. Forward current



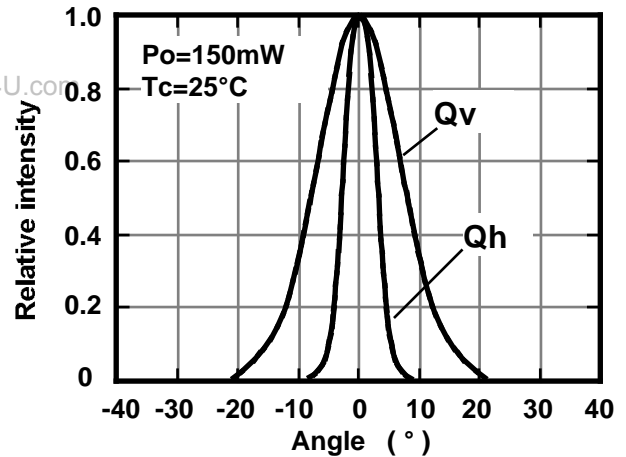
Threshold current vs. Temperature



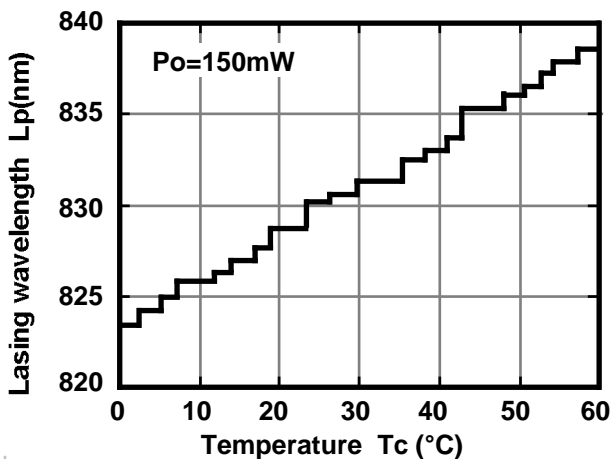
Monitor current vs. Output power



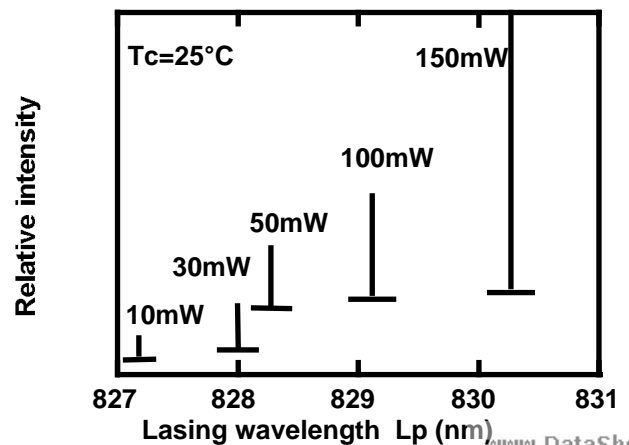
Beam divergence



Lasing wavelength vs. Temperature



Output power vs. Lasing wavelength



This is typical data and it may not represent all products.