

# 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<sub>th</sub> = 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

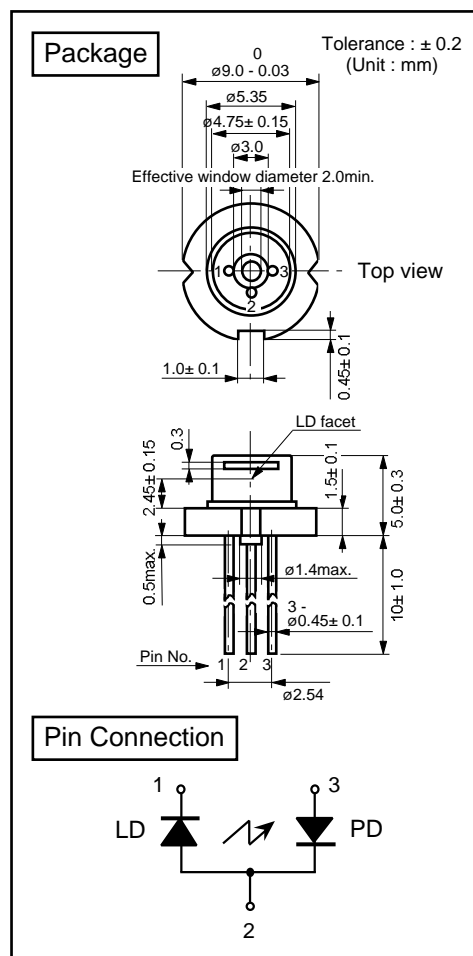
### Electrical and Optical Characteristics

(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.

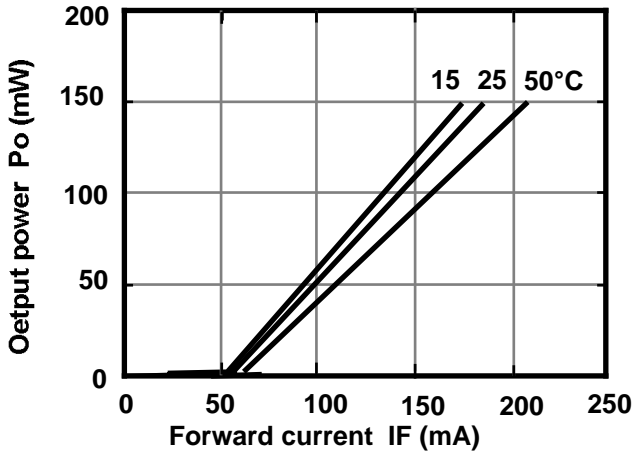


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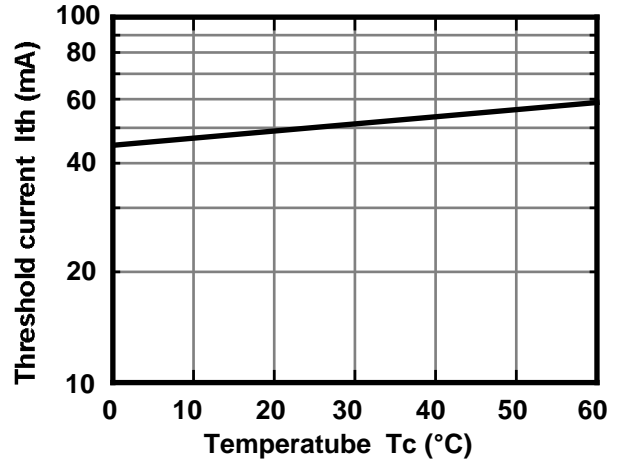


## Characteristics

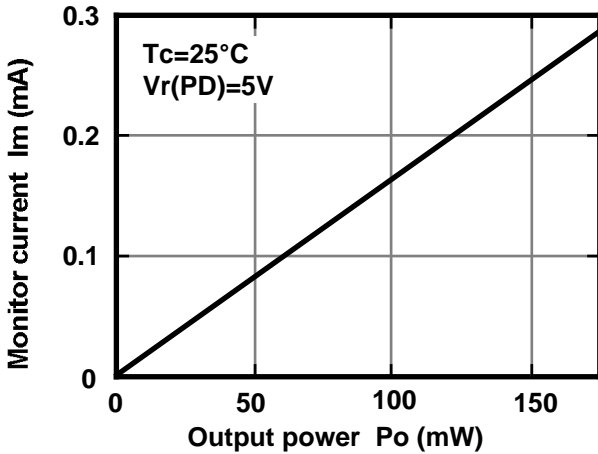
### Output power vs. Forward current



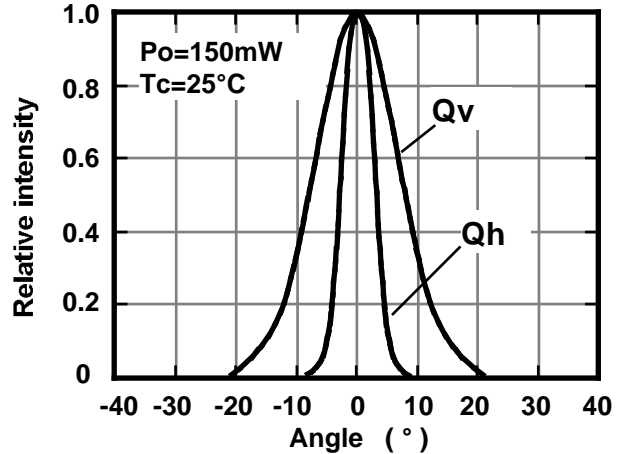
### Threshold current vs. Temperature



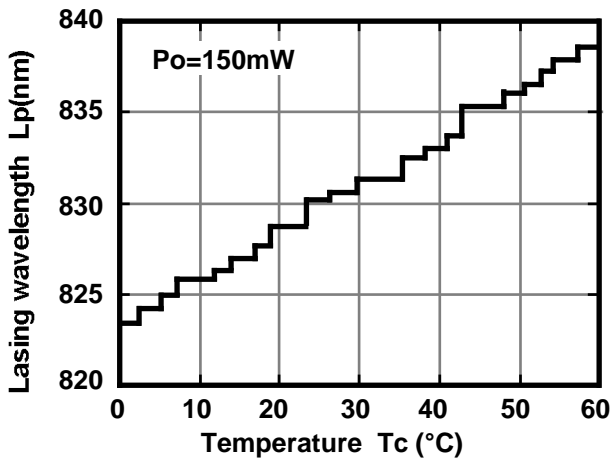
### Monitor current vs. Output power



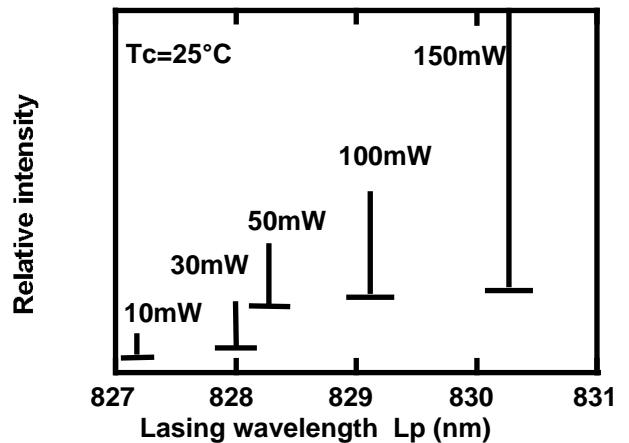
### Beam divergence



### Lasing wavelength vs. Temperature



### Output power vs. Lasing wavelength



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