

# INFRARED LASER DIODE

## DL-5032-001

# SANYO

Ver.2 Nov. 1999

### Features

- Lasing wavelength : 830 nm (Typ.)
- Low threshold current :  $I_{th} = 30$  mA (Typ.)
- High output power : 30 mW

### Applications

- Laser printer
- Measurement equipments

### Absolute Maximum Ratings

( $T_c=25^\circ\text{C}$ )

Parameter		Symbol	Ratings	Unit
Light Output	CW	$P_o$	40	mW
Reverse Voltage	Laser	VR	2	V
	PIN		30	
Operating Temperature		$T_{opr}$	-10 ~ +60	$^\circ\text{C}$
Storage Temperature		$T_{stg}$	-40 ~ +85	$^\circ\text{C}$

### Electrical and Optical Characteristics <sup>1)</sup>

( $T_c=25^\circ\text{C}$ )

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		$I_{th}$	CW	20	30	40	mA
Operating Current		$I_{op}$	$P_o=30\text{mW}$	-	60	90	mA
Operating Voltage		$V_{op}$	$P_o=30\text{mW}$	-	1.9	2.5	V
Lasing Wavelength		$\lambda_p$	$P_o=30\text{mW}$	810	830	840	nm
Beam <sup>2)</sup> Divergence	Perpendicular	$Q_v$	$P_o=30\text{mW}$	15	18	23	$^\circ$
	Parallel	$Q_h$	$P_o=30\text{mW}$	5	7.5	10	$^\circ$
Off Axis Angle	Perpendicular	$dQ_v$	$P_o=30\text{mW}$	-	-	$\pm 3$	$^\circ$
	Parallel	$dQ_h$	$P_o=30\text{mW}$	-	-	$\pm 3$	$^\circ$
Differential Efficiency		$dP_o/dI_{op}$	$P_o=30\text{mW}$	0.6	1.0	1.3	mW/mA
Monitoring Output Current		$I_m$	$P_o=30\text{mW}$	0.05	0.10	-	mA
Astigmatism		$A_s$	$P_o=30\text{mW}$	-	-	10	$\mu\text{m}$

1) initial values, 2) full angle at half maximum,

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

