

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 ¹⁾

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

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		L_p	$P_o=30\text{mW}$	810	830	840	nm
Beam ²⁾ 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	$P_o=30\text{mW}$	-	-	± 3	$^\circ$
	Parallel	dQ_h	$P_o=30\text{mW}$	-	-	± 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	μm

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

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

