

# RED LASER DIODE

## DL-3147-011

# SANYO

Ver.2 Mar. 1998

DL-3147-011 is 645 nm (Typ.) AlGaInP laser diode with low threshold current.

DL-3147-011 is suitable for laser pointers.

### Features

- Short wavelength : 645 nm (Typ.)
- Low threshold current :  $I_{th} = 30$  mA (Typ.)
- Small package :  $\phi 5.6$  mm

### Absolute Maximum Ratings

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

Parameter	Symbol	Symbol	Rating	Unit
Light Output	CW	$P_o$	5	mW
Reverse Voltage	Laser	VR	2	V
	PIN		30	
Operating Temperature		$T_{opr}$	-10 ~ +40	$^\circ\text{C}$
Storage Temperature		$T_{stg}$	-20 ~ +85	$^\circ\text{C}$

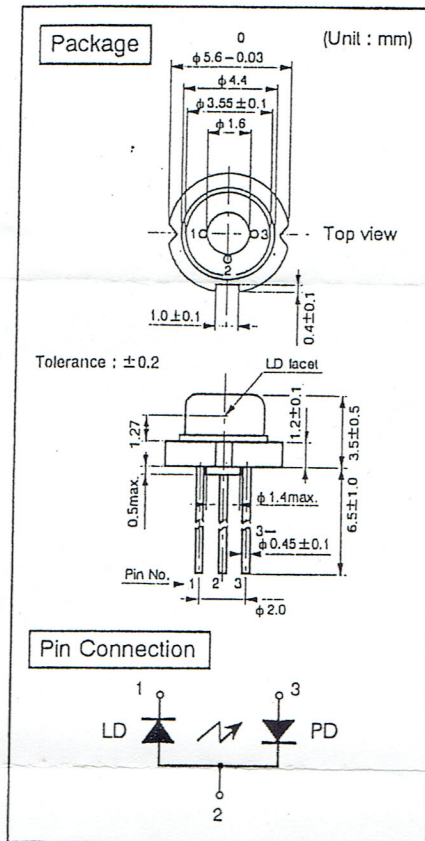
### Electrical and Optical Characteristics

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

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current	$I_{th}$	CW	—	30	50	mA
Operating Current	$I_{op}$	$P_o = 3\text{mW}$	—	40	60	mA
Operating Voltage	$V_{op}$	$P_o = 3\text{mW}$	—	2.3	2.6	V
Lasing Wavelength	$\lambda_p$	$P_o = 3\text{mW}$	—	645	660	nm
Beam Divergence	Perpendicular	$\theta_{\perp}$	25	30	40	deg.
	Parallel	$\theta_{\parallel}$	6	7.5	10	deg.
Off Axis Angle	Perpendicular	$\Delta\theta_{\perp}$	—	—	$\pm 4$	deg.
	Parallel	$\Delta\theta_{\parallel}$	—	—	$\pm 4$	deg.
Differential Efficiency	$dP_o/dI_{op}$	—	—	0.4	—	mW/mA
Monitoring Output Current	$I_m$	$P_o = 3\text{mW}$	0.07	0.2	0.45	mA

1) Full angle at half maximum

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



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