

830nm 150mW 60°C Laser Diode in TO-18 ϕ 5.6mm Package

Part No. LD830A150C16

FEATURES

- 830nm 150mW CW AlGaAs Laser Diode
- Package: TO-18 (dia. 5.6mm)
- High temperature operation
- Small far field angle
- 6-wire bond

APPLICATIONS

- Light source for sensing
- Light source for TOF distance measurement
- Industry

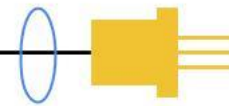
ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Condition	Rating	Unit
Optical output power	P_O	CW	160	mW
Reverse voltage (LD)	V_{RL}	-	2	V
Reverse voltage (PD)	V_{RD}	-	30	V
Forward current (PD)	I_{FD}	-	10	mA
Operating temperature	T_{opr}	-	-10 to +60	°C
Storage temperature	T_{stg}	-	-40 to +85	°C

ELECTRICAL AND OPTICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Lasing wavelength	λ_p	820	830	840	nm	$P_O = 150\text{mW}$
Threshold current	I_{th}	-	70	90	mA	
Operating current	I_{op}	-	220	260	mA	$P_O = 150\text{mW}$
Differential Efficiency	η	0.8	1.0	-	mW/mA	$P_O = 100\text{-}150\text{mW}$
Operating voltage	V_{op}	-	1.8	2.4	V	$P_O = 150\text{mW}$
Monitor current	I_m	0.2	0.7	1.3	mA	$P_O = 150\text{mW}$, $V_{RD} = 5\text{V}$
Parallel divergence angle	$\Theta_{//}$	5	7	12	deg	$P_O = 150\text{mW}$
Perpendicular divergence angle	Θ_{\perp}	-	14	20	deg	$P_O = 150\text{mW}$
Parallel FFP deviation angle	$\Delta \Theta_{//}$	-3	0	+3	deg	$P_O = 150\text{mW}$
Perpendicular FFP deviation angle	$\Delta \Theta_{\perp}$	-3	0	+3	deg	$P_O = 150\text{mW}$
Emission point accuracy	$\Delta x \Delta y \Delta z$	-80	0	+80	um	$P_O = 150\text{mW}$

* Sufficient heat dissipation is required for CW operation.



TYPICAL CHARACTERISTICS

