



LD635A15C15

635nm 15mW 50°C CW Laser Diode in \varnothing 5.6mm TO-18 Can Package

Description

The Lasermate LD635A15C15 is a 635nm, 15mW laser diode in a \varnothing 5.6mm, TO-can package and with operating temperature of 50°C. The laser diode is suitable for many applications, including industrial laser markers, high visibility LD display, and survey and engineering instruments.

Features

- 635nm AlGaInP Visible Laser Diode
- Optical output power: 15mW CW
- High temperature operation: 50°C
- High visibility
- Higher power
- Small perpendicular divergence angle
- Package: TO-18, \varnothing 5.6mm

Applications

- Industrial laser markers
- Survey and engineering instruments
- High visibility LD display

Absolute Maximum Ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	P_O	CW	17	mW
Reverse voltage (LD)	V_{RL}	-	2	V
Reverse voltage (PD)	V_{RD}	-	30	V
Forward current (PD)	I_{FD}	-	10	mA
Case temperature	T_C	-	-10 to +50	°C
Storage temperature	T_S	-	-40 to +85	°C

Electrical and Optical Characteristics ($T_C = 25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength	λ	630	636	640	nm	$P_O = 15\text{mW}$
Threshold current	I_{th}	-	33	45	mA	
Operating current	I_{op}	-	66	80	mA	$P_O = 15\text{mW}$
Operating voltage	V_{op}	-	2.3	2.6	V	$P_O = 15\text{mW}$
Differential efficiency	η	0.3	0.45	0.7	mW/mA	$P_O = 10\text{-}15\text{mW}$
Monitor current	I_m	0.1	0.2	0.4	mA	$P_O = 15\text{mW}$, $V_{RD} = 5\text{V}$
Parallel divergence angle	$\Theta_{//}$	6	7.5	10	deg	$P_O = 15\text{mW}$
Perpendicular divergence angle	Θ_{\perp}	30	33	38	deg	
Parallel FFP deviation angle	$\Delta \Theta_{//}$	-2	0	+2	deg	
Perpendicular FFP deviation angle	$\Delta \Theta_{\perp}$	-2	0	+2	deg	
Emission point accuracy	$\Delta x \Delta y \Delta z$	-80	0	+80	um	

Typical Characteristics



