

650 nm 40mW Laser Diode (AL650T40)

Features:

Lasing wavelength: 650 ± 10 nm

Low threshold current (≤ 40 mA)

Output power 40 mW (CW)

Index guided single transverse mode

Standard TO-18 package ($\Phi=5.6$ mm)

High operation temperature (50°C)

Low astigmatism, high reliability



Applications:

Indicator

Pointer

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

Parameter	Units	Symbol	Rating
Optical power	mW	P_o	45
Operating temperature	$^{\circ}\text{C}$	T_{op}	-10~40
Storage temperature	$^{\circ}\text{C}$	T_{stg}	-40~85
LD reverse voltage	V	V_{RLD}	≤ 2
PD reverse voltage	V	V_{RPD}	≥ 30

Optical and electrical characteristics ($T_c=25^{\circ}\text{C}$)

Parameter	Symbol	Typical	Units
Lasing wavelength	λ	650 ± 10	nm
Optical output power	P_o	≥ 40	mW
Threshold current	I_{th}	≤ 45	mA
Operating current	I_{op}	≤ 125	mA
Operating voltage	V_{op}	≤ 2	V
Monitoring current	I_m	≥ 0.5	mA
Beam divergence	$\theta_{//}$	≤ 12	deg
	θ_{\perp}	≤ 35	

