

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

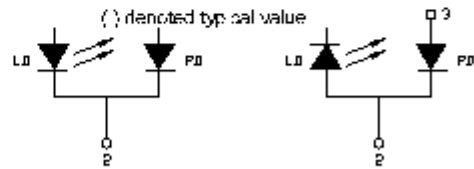
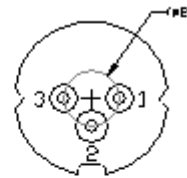
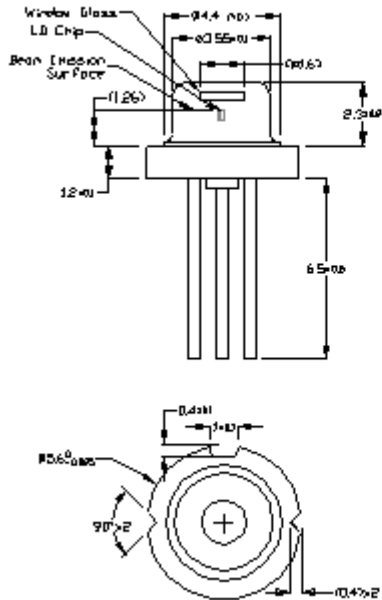
Absolute maximum ratings ($T_c=25^\circ\text{C}$)

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	

TO-18 package: (Unit: mm)



Cautions:

1. ESD precautions must be taken when handling this product.
2. Direct exposure of the visible beam to eyes should be avoided.
3. AOE reserves the right to make changes of this product specifications without

notice in order to improve design and/or performance. AOE advises its customers to obtain the latest version of the publications to verify that the information being relied on is up-to-date.