

## 450nm, 50mw, TO38 package

### Application :

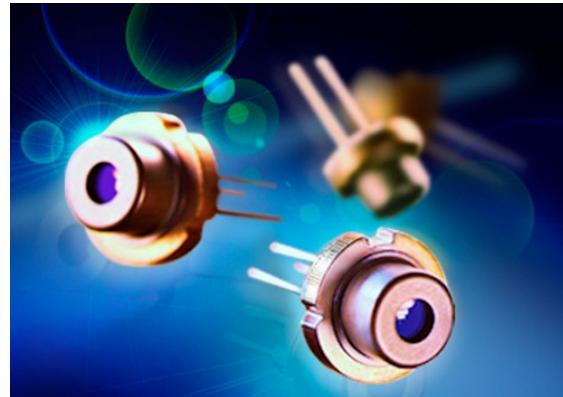
Industrial use / Biomedical / Laser projection

### Property :

Wavelength Range = 450nm

### Introduction :

Typical emission wavelength at 450nm and it is a efficient radiation source for cw and pulsed operation.



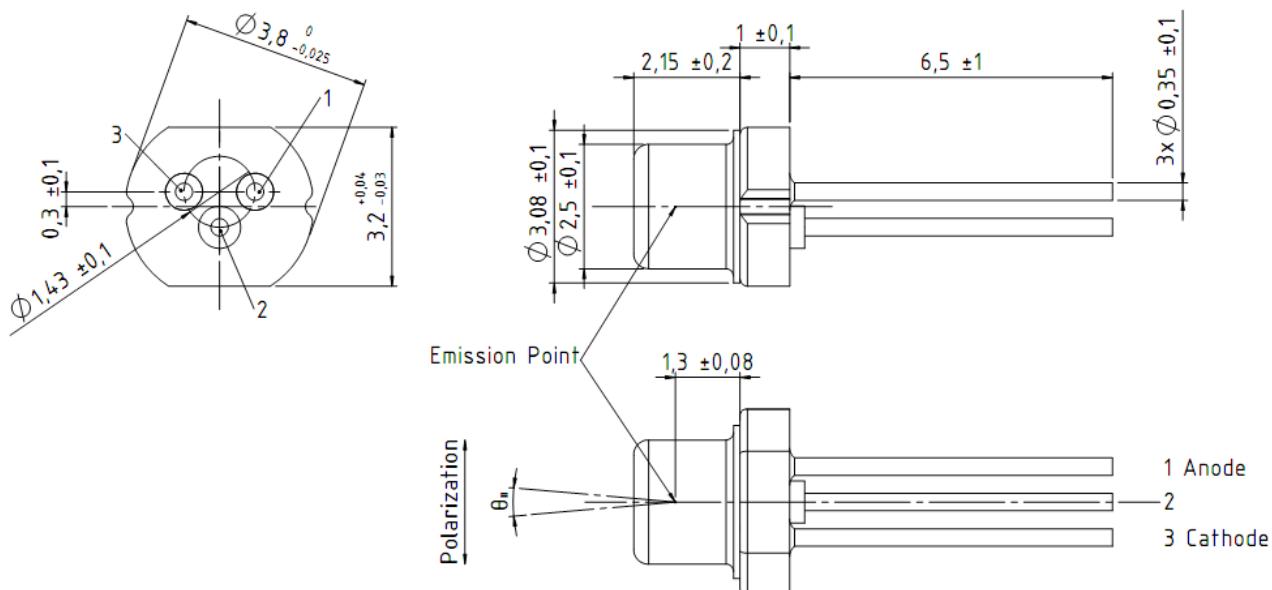
### Laser Characteristics (T=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Emission Wavelength	$\lambda_p$	440	450	460	nm	$P_o=50mW$
Optical Output power	$P_o$	-	50	-	mW	-
Threshold Current	$I_{th}$	-	30	60	mA	-
Operating Current	$I_{op}$	-	80	120	mA	$P_o=50mW$
Operating Voltage	$V_{op}$	-	5.5	6.5	V	$P_o=50mW$
Beam Divergence	$\Theta_{//}$	4	7	15	deg	$P_o=50mW$
	$\Theta_{\perp}$	15	21	25	deg	$P_o=50mW$

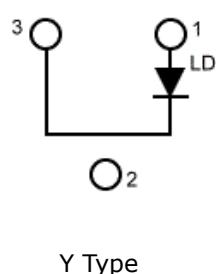
### Maximum Rating

Parameter	Symbol	Value	Unit
Reverse Voltage	V	2	V
Operating Temperature	$T_o$	10~+70	°C
Storage Temperature	$T_s$	-40~+85	°C

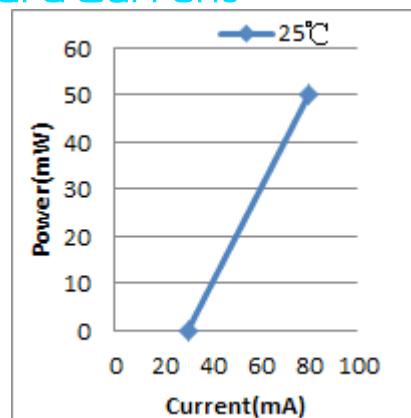
## Package Outlines :



## Package Connection :



## Optical Output Power vs Forward Current



## Caution :

- The forward voltage to drive the optical output power of an LD fluctuates with temperature. High temperature compromises optical efficiency of an LD and thus results in even more operating current to support constant output optical power.
- The reliability of LDs is influenced by Static electricity or electrical surges. Wrist strap or anti-electrostatic glove are recommended to use when picking up LDs.

## Certification :

