

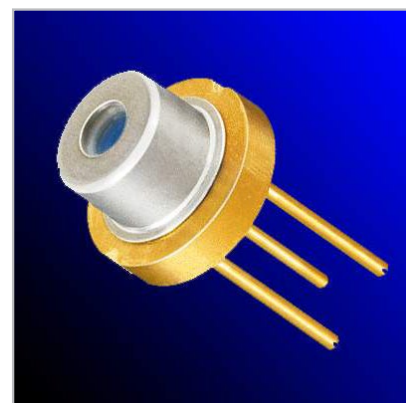
445 nm Laser Diode CS450100S3X

Key Features

- Visible Light $\lambda = 450 \text{ nm}$
- Output Power = 100 mW
- Package Type = 3.8 mm Φ

Applications

- Laser Projector
- Biomedical Application



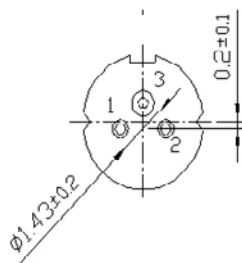
Electrical and Optical Characteristics at Tc=25°C

Item	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical output power	P_o	-	-	100	mW	-
Threshold current	I_{th}	-	-	50	mA	-
Operating current	I_{op}	-	-	145	mA	-
Slope efficiency	SE	0.9	-	1.6	mW/mA	-
Operating voltage	V_{op}	-	-	6	V	$P_o = 100 \text{ mW}$
Peak wavelength	λ_p	440	448	460	nm	$P_o = 100 \text{ mW}$
Beam divergence	$\Theta_{//}$	6.5	8.6	10.5	deg	$P_o = 100 \text{ mW}$
	Θ_{\perp}	20	22.5	25	deg	$P_o = 100 \text{ mW}$
Beam deviation angle	$\Delta\Theta_{//}$	-2.5	-	2.5	deg	$P_o = 100 \text{ mW}$
	$\Delta\Theta_{\perp}$	-3	-	3	deg	$P_o = 100 \text{ mW}$

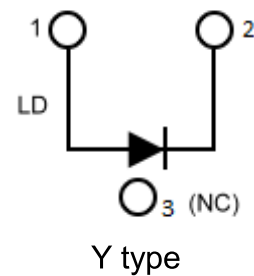
Absolute Maximum Rating at $T_c=25^\circ\text{C}$

Items	Symbols	Values	Unit
Optical output power	P_o	140	mW
Laser diode reserve voltage	V	85	V
Operating temperature	T_o	-10 ~ +80	$^\circ\text{C}$
Storage temperature	T_s	-40 ~ +85	$^\circ\text{C}$

Electrical Connection



Package Type



Package Drawing

