

780nm CW 90mW 75 °C Reliable Operation! Pulse 200mW for 40X CD-R/RW OPU

• Features

1. Low operating current
2. Small aspect ratio
3. High COD level

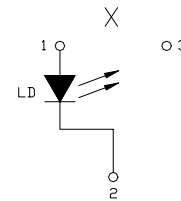
• Applications

1. Virtual keyboard
2. 40X CD-R/RW optical pick up
3. Combo drive optical pick up

• Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
Light output power	P _O	CW	100	mW
	Pop	Pulsed*	180	
Reverse voltage(LD)	V _{RL}	-	2	V
Case temperature	T _C	-	-10~+75	°C
Storage temperature	T _S	-	-40~+85	°C

* Pulse width 0.5us, duty cycle 50%



• Electrical and optical characteristics (T_c=25 °C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Peak wavelength		775	785	795	nm	P _O =90mW
Threshold current	I _{th}	25	35	55	mA	
Operating current	I _{op}	90	115	160	mA	
Operating voltage	V _{op}	1.5	2	2.2	V	
Differential efficiency		0.8	1.1	1.3	mW/mA	P _O =88-90mW
Parallel divergence angle	//	8	9	10	deg	P _O =90mW
Perpendicular divergence angle		15	17	19	deg	
Parallel FFP deviation angle	//	-	-	±2	deg	
Perpendicular FFP deviation angle		-	-	±2	deg	
Emission point accuracy	x y z	-	-	±80	um	

• Precautions

1. Do not operate the device above the maximum rating condition, even momentarily. It may cause unexpected permanent damage to the device.
2. Semiconductor laser device is very sensitive to electrostatic discharge. High voltage spike current may change the characteristics of the device, or malfunction at any time during its service period. Therefore, proper measures for preventing electrostatic discharge are strongly recommended.
3. Effective heat sink can help the device operates under a more relax condition; as a result, a more stable characteristics and better reliability can be achieved. So it is recommended that always apply proper heat sink before the device is operating.
4. Do not look into the laser beam directly by bare eyes. The laser beam may cause severe damage to human eyes.

