

Features

- Wavelength : 785 nm (Typ.)
- Low threshold current : $I_{th} = 30$ mA (Typ.)
- High operating temperature : 60°C at 70mW(CW)

Applications

Optical disc system (CD-R)

Absolute Maximum Ratings

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

Parameter		Symbol	Ratings	Unit
Light Output	CW	P_o (CW)	80	mW
	Pulse ¹⁾	P_o (pulse)	85	
Reverse Voltage	Laser	V_R	2	V
	PD		30	
Operating Temperature		T_{opr}	-10 to +60	$^\circ\text{C}$
Storage Temperature		T_{stg}	-40 to +85	$^\circ\text{C}$

1) Pulse Width $\leq 1.0\mu\text{s}$, Duty 50%

Electrical and Optical Characteristics

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

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I_{th}	CW	-	30	50	mA
Operating Current		I_{op}	$P_o=70\text{mW}$	-	100	140	mA
Operating Voltage		V_{op}	$P_o=70\text{mW}$	-	2.0	2.8	V
Lasing Wavelength		L_p	$P_o=70\text{mW}$	775	785	800	nm
Beam ²⁾ Divergence	Perpendicular	Q_v	$P_o=70\text{mW}$	15	17	20	$^\circ$
	Parallel	Q_h	$P_o=70\text{mW}$	6	8	10	$^\circ$
Off Axis Angle	Perpendicular	dQ_v	-	-	-	± 3	$^\circ$
	Parallel	dQ_h	-	-	-	± 2	$^\circ$
Differential Efficiency		dP_o/dI_{op}	-	0.6	1.0	1.4	mW/mA
Monitoring Output Current		I_m	$P_o=70\text{mW}$	0.10	0.25	0.6	mA
Astigmatism		A_s	$P_o=70\text{mW}$	-	-	10	μm

2) Full angle at half maximum

Note : The above product specification are subject to change without notice.

