Red Laser Diode

DL-4038-026/-226

Features

- Short wavelength : 635 nm (Typ.)
- High output power : 20 mW CW
- Low threshold current : Ith = 40 mA (Typ.)
- Low operating voltage : Vop = 2.3 V (Typ.)

Applications

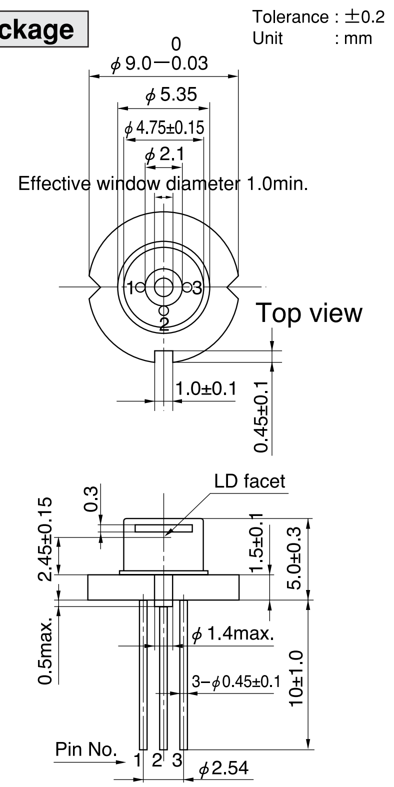
- Line marker
- Bar-code scanner

Absolute Maximum Ratings

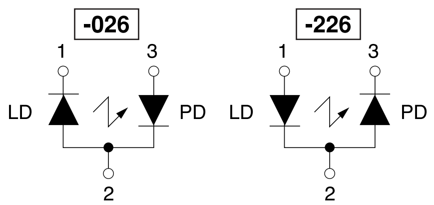
(Tc = 25℃)

Parameter		Symbol	Ratings	Unit
Light Output	CW	Po	25	mW
Reverse Voltage	LD	V_R	2	V
	PD		30	
Operating Temperature		Topr	–10 to +40	℃
Storage Temperature		Tstg	–40 to +85	℃

Package



Pin Connection



Electrical and Optical Characteristics [1) 2)]

(Tc = 25℃)

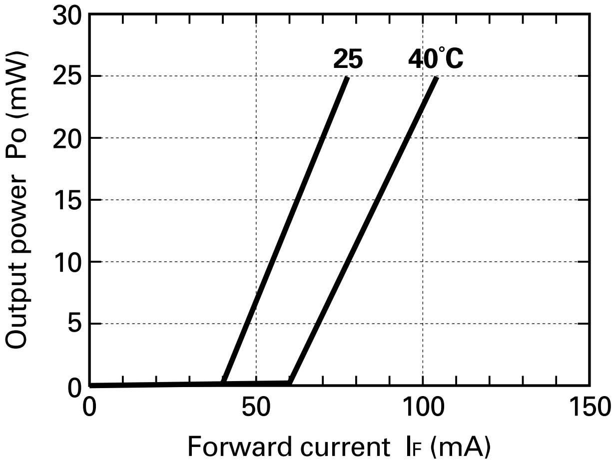
Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	CW	—	40	60	mA
Operating Current		Iop	Po=20mW	—	70	85	mA
Operating Voltage		Vop	Po=20mW	—	2.3	2.6	V
Lasing Wavelength		λp	Po=20mW	—	635	645	nm
Beam Divergence [3)]	Perpendicular	$\theta\perp$	Po=20mW	22	28	35	°
	Parallel	$\theta //$	Po=20mW	6	7	10	°
Off Axis Angle	Perpendicular	$\Delta\theta\perp$	—	—	—	±3	°
	Parallel	$\Delta\theta //$	—	—	—	±3	°
Differential Efficiency		dPo/dIop	—	—	0.7	—	mW/mA
Monitoring Output Current		Im	Po=20mW	0.1	0.2 [4)]	0.5	mA
Astigmatism		As	Po=20mW	—	10	—	μm

1)Initial values 2)All the above values are evaluated with Tottori Sanyo's measuring apparatus 3) Full angle at half maximum 4)-226 Im=0.1mA(Typ)

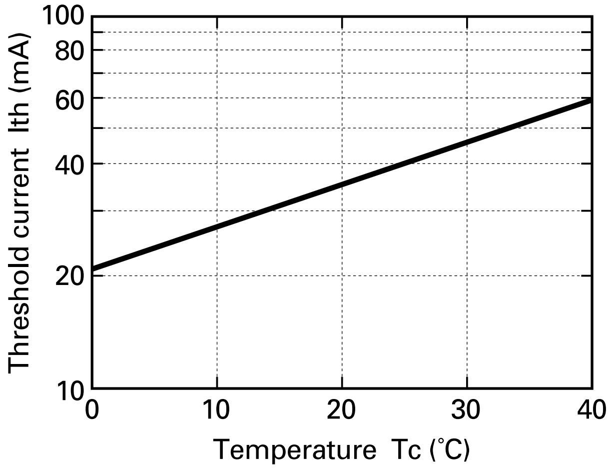
Note : The above product specifications are subject to change without notice.

Characteristics

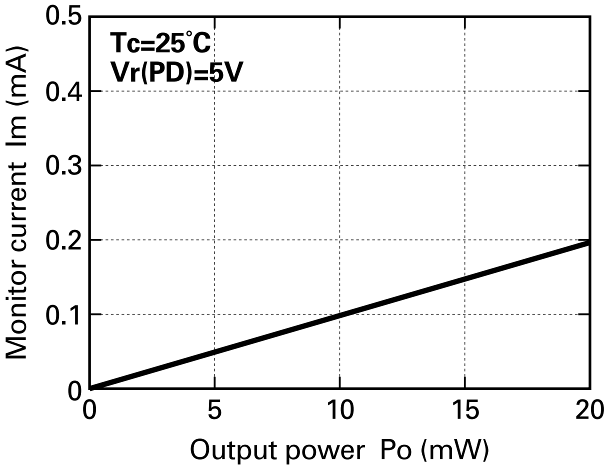
Output power vs. Forward current



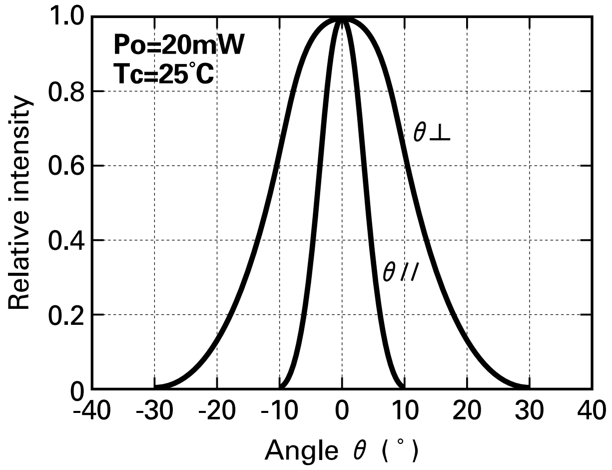
Threshold current vs. Temperature



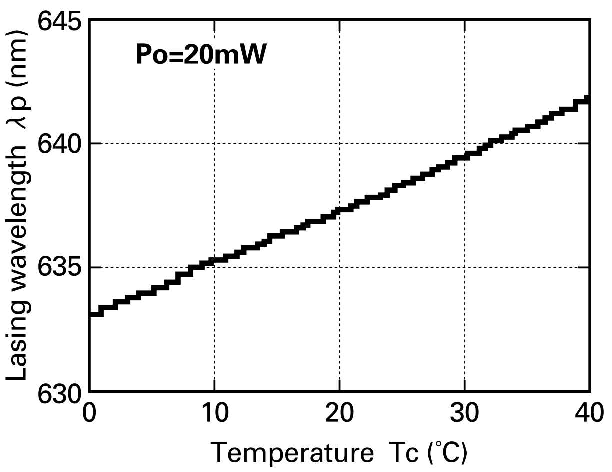
Monitor current vs. Output power



Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power