

635nm Laser Diode

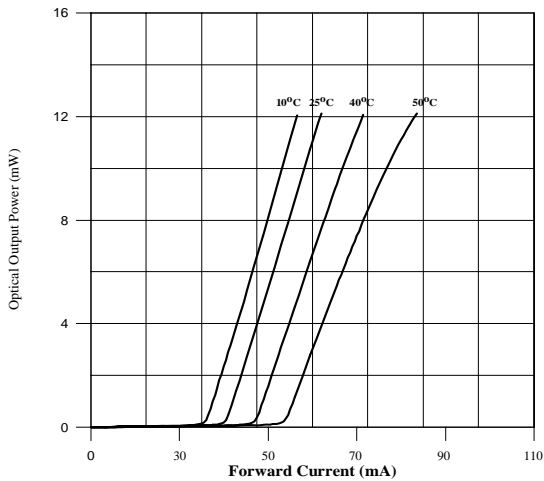
■Electrical and Optical Characteristics(Tc=25°C)

Parameter	Symbols	Conditions	Min.	Typ.	Max.	Units	
Threshold current	I _{th}	-	-	30	40	mA	
Operating Current	I _{op}	P _o =10mW	-	50	60	mA	
Operating Voltage	V _{op}	-	-	2,3	2,6	Volts	
Slope Efficiency	η	7mW-3mW	0,3	0,45	-	mW/mA	
		I _{7mW} -I _{3mW}					
Monitor Current	I _m	P _o =10mW	0,05	0,15	0,4	mA	
Beam Divergence (FWHM)	Parallel	θ//	P _o =10mW	6	8	12	deg.
	Perpendicular	θ _⊥	P _o =10mW	28	33	37	deg.
Lasing Wavelength	λ	P _o =10mW	630	635	642	nm	
Position Accuracy	Position	ΔX,ΔY,ΔZ	P _o =10mW	-	-	±80	um
	Angle	Δθ//		-	-	±2	deg.
		Δθ _⊥		-	-	±3	deg.

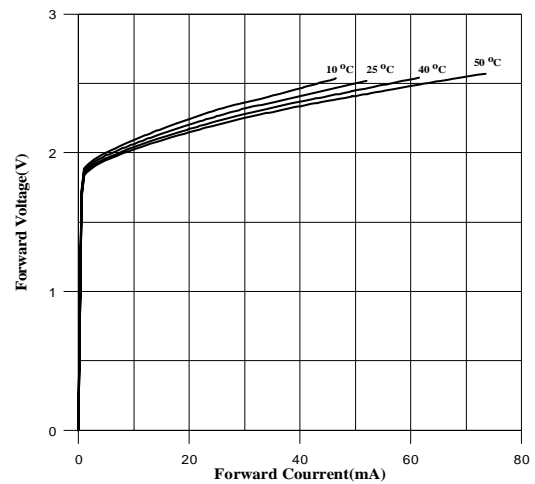
©θ// and θ_⊥ are defined as the angle within which the intensity is 50% of the peak value.

■Typical characteristic curves

Optical Output Power v.s. Forward Current

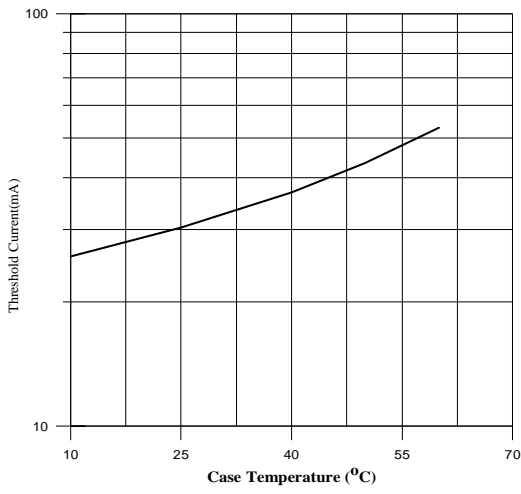


Forward Voltage vs. Forward Current

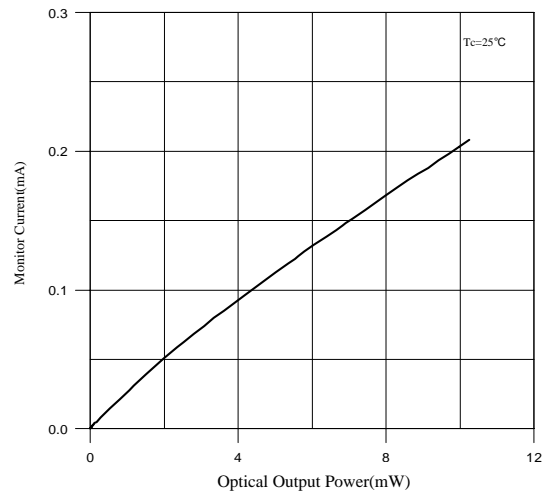


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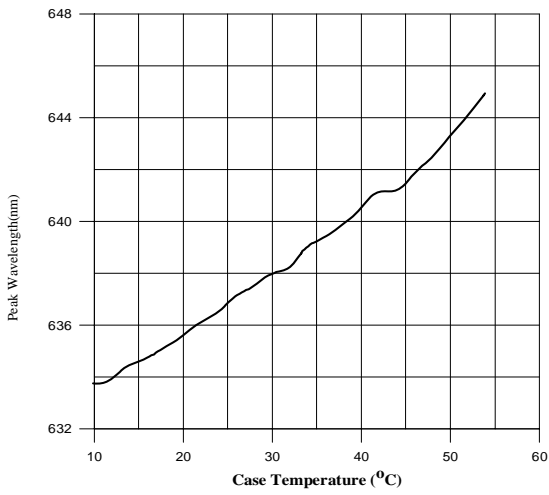
Threshold Current v.s. Case Temperature



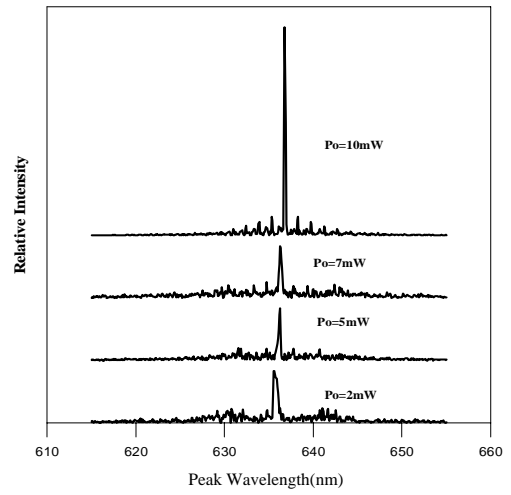
Monitor Current v.s. Optical Output Power



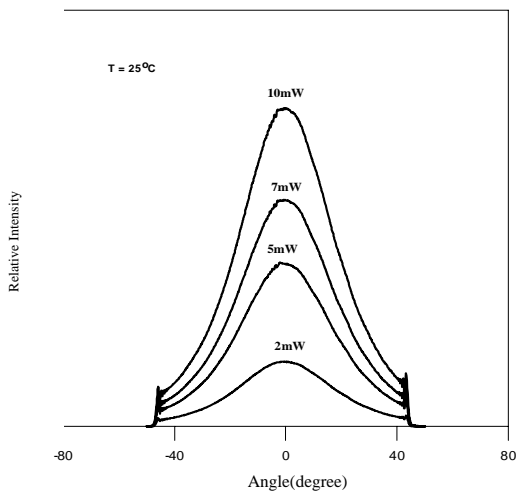
Peak Wavelength v.s. Case Temperature



Lasing Spectrum v.s. Optical Output Power



Far-Field Pattern(Perpendicular) vs. Optical Output Power



Far-Field Pattern-Parallel vs. Optical Output Power

