



LD650-10-1

● Specifications:

Wavelength: 650nm
 Power: 10mW CW
 Package: TO18

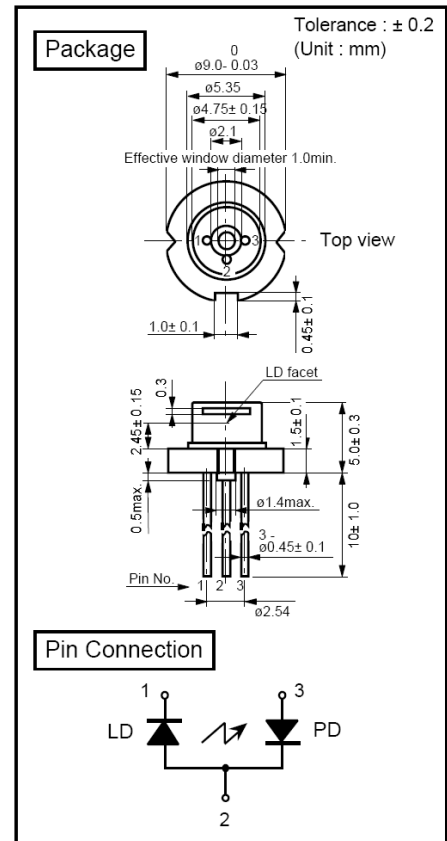
● Absolute Maximum Ratings($T_c=25^\circ\text{C}$):

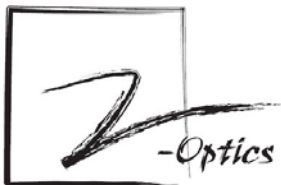
Parameter		Symbols	Ratings	Units
Light Output	CW	P_o	12	mW
Reverse Voltage	Laser	V_r	2	V
	PD	$V_r(\text{PIN})$	30	V
Operation Temperature		T_{op}	-10~+40	$^\circ\text{C}$
Storage Temperature		T_{stg}	-15~+85	$^\circ\text{C}$

● Electrical and Optical Characteristics($T_c=25^\circ\text{C}$):

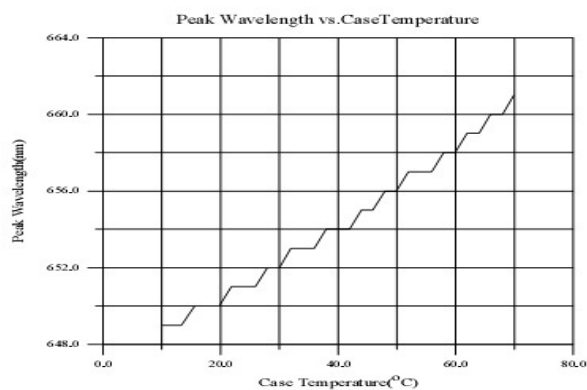
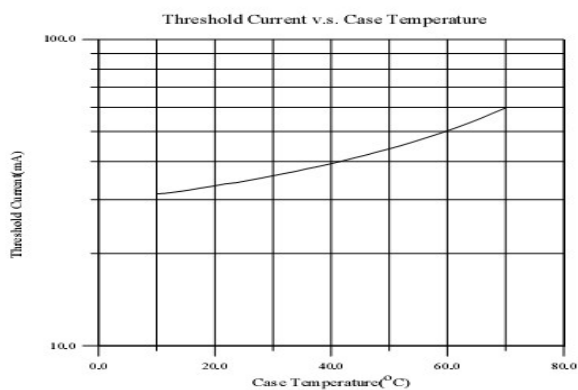
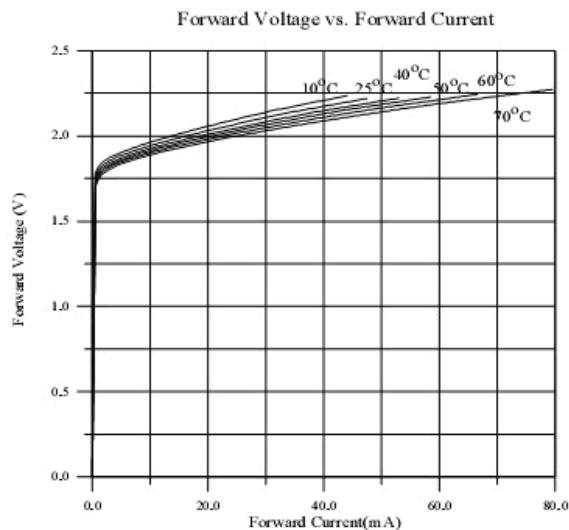
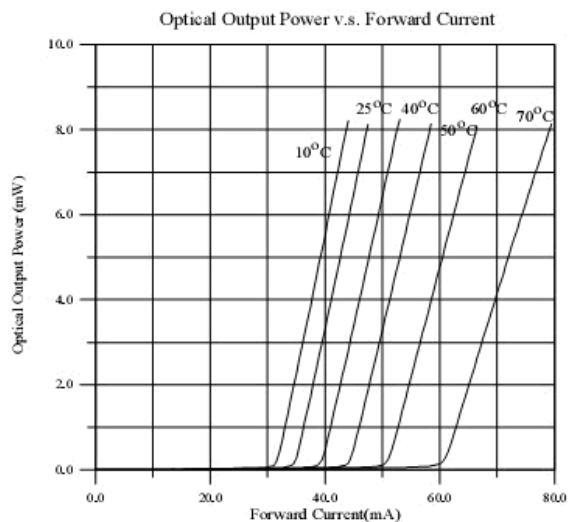
Parameter		Symbols	Condition	Min.	Typ.	Max.	Unit
Lasing Wavelength		λ_p	$P_o=10\text{mW}$	640	655	665	nm
Threshold Current		I_{th}	CW	-	24	40	mA
Operating Current		I_{op}	$P_o=10\text{mW}$	-	40	50	mA
Operating voltage		V_{op}	$P_o=10\text{mW}$	-	2.4	2.8	V
Monitoring Output Current		I_m	$P_o=10\text{mW}$ $V_r=0\text{V}$	0.1	0.3	1.0	mA
Beam ¹⁾ Divergence	Parallel	$\theta_{//}$	$P_o=10\text{mW}$	5	8	12	deg.
	Perpendicular	θ_{\perp}	$P_o=10\text{mW}$	26	30	32	deg.
Slope Efficiency		η	-	0.3	0.6	-	mW/mA
Life Time (MTTF)					>5000		h

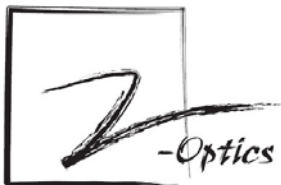
1) Full angle at half Maximum





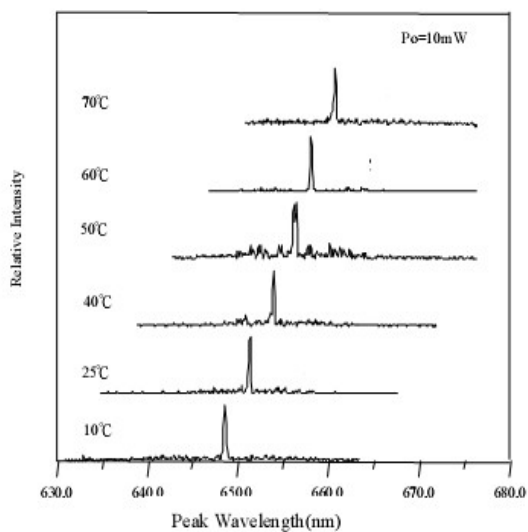
● **Electrical and Optical Characteristics Curves($T_c=25^{\circ}\text{C}$):**



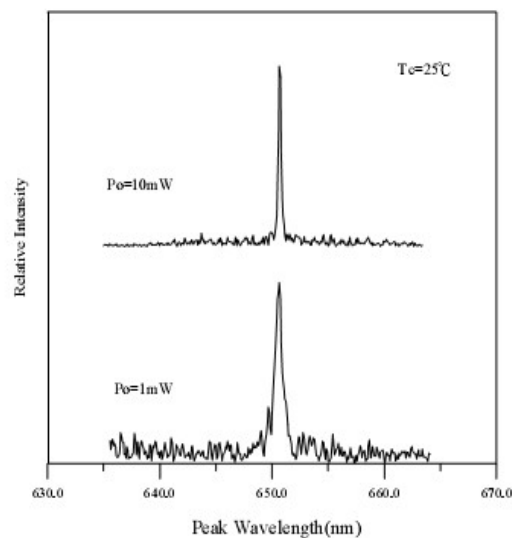


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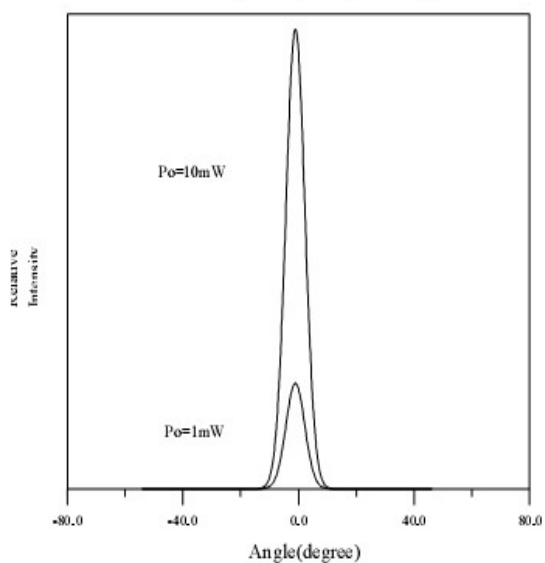
Lasing Spectrum v.s. Temperature



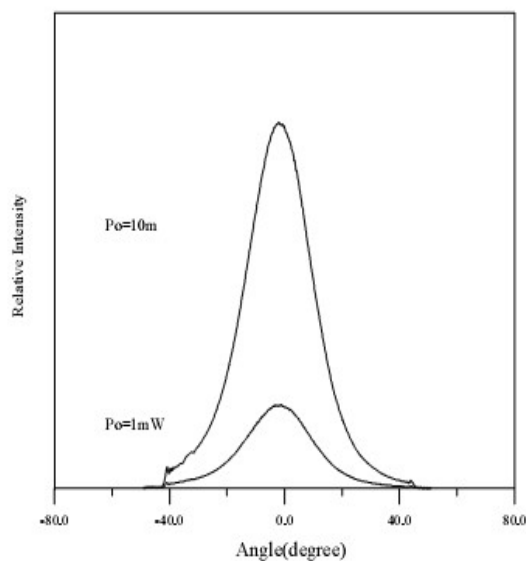
Lasing Spectrum v.s. Optical Output Power



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



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



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