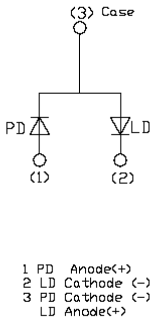
ROITHNER LASERTECHNIK GmbH
WIEDNER HAUPTSTRASSE 76 1040 VIENNA AUSTRIA
TEL. +43 1 586 52 43 -0, FAX. -44, OFFICE@ROITHNER-LASER.COM

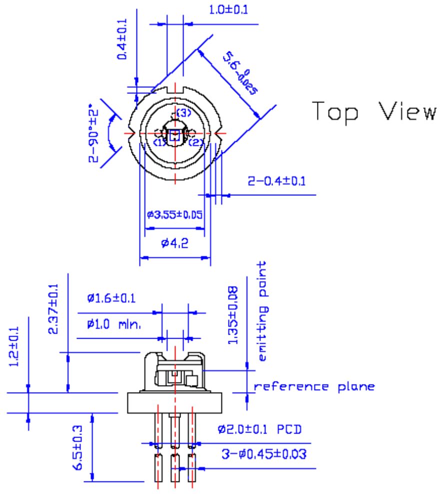
S9810MG

■Specifications

(1) Device:	Laser Diode
(2) Structure:	TO-18(ϕ 5.6mm)

■External dimensions(Unit : mm)





■Absolute Maximum Ratings(Tc=25℃)

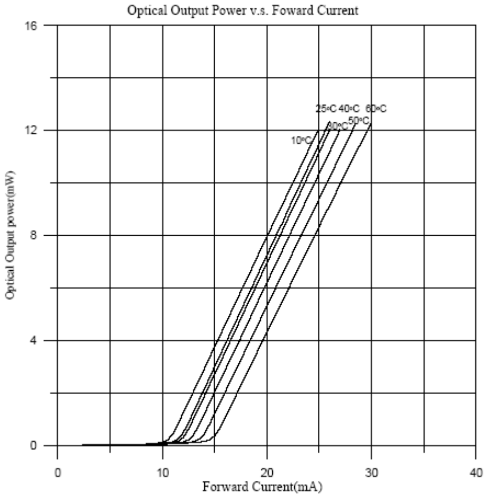
Parameter		Symbol	Value	Unit
Optical Output		Po	10	mW
Reverse Voltage	Laser	Vr	2	V
	PIN PD	Vr(PIN)	30	V
Operating Temperature		Top	-10~+40	℃
Storage Temperature		Tstg	-15~+85	℃

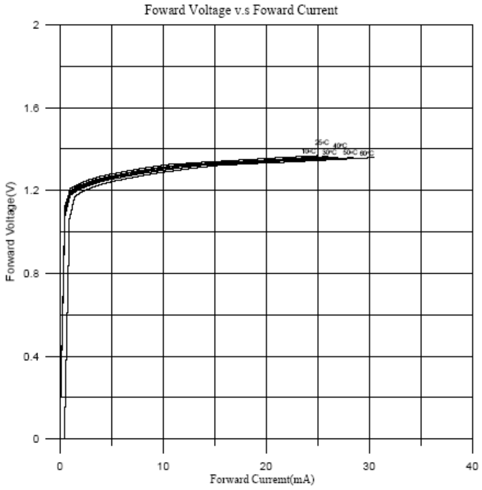
■Electrical and Optical Characteristics(Tc=25℃)

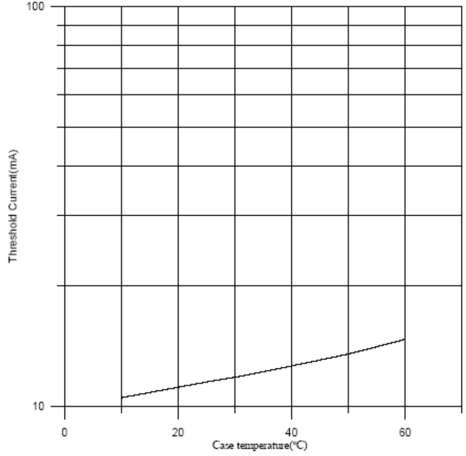
Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	CW	-	12	20	mA
Operating Current		Iop	Po=10mW	-	25	40	mA
Operating Voltage		Vop	Po=10mW	-	1.5	2	Volt
Slope Efficiency		η	7.5mW-2.5mW $I_{7.5mW}$- $I_{2.5mW}$	0.5	0.8	-	mW/mA
Monitor Current		Im	Po=10mW	0.02	0.03	0.5	mA
Beam Divergence	Parallel	θ //	Po=10mW	8	12	14	deg.
(FWHM)	Perpendicular	θ ⊥	Po=10mW	25	32	40	deg.
Lasing Wavelength		λ	Po=10mW	965	980	995	nm

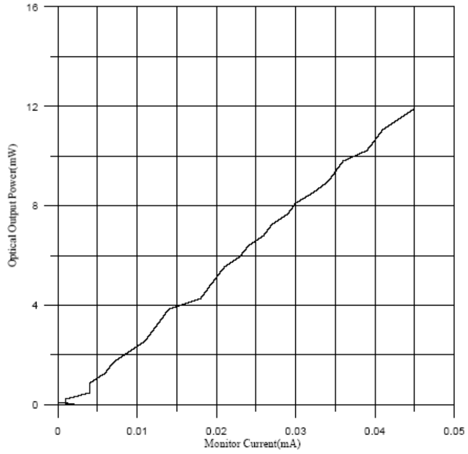
◎ θ // and θ ⊥ are defined as the angle within which the intensity is 50% of the peak value.

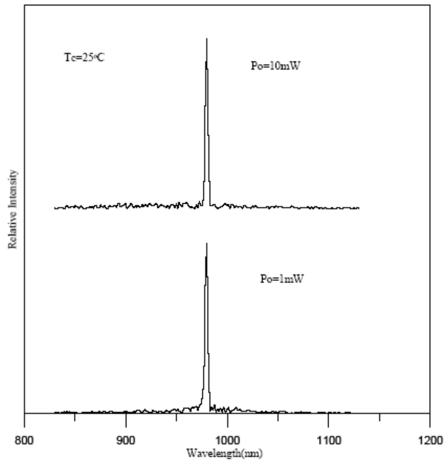
■Typical characteristic curves

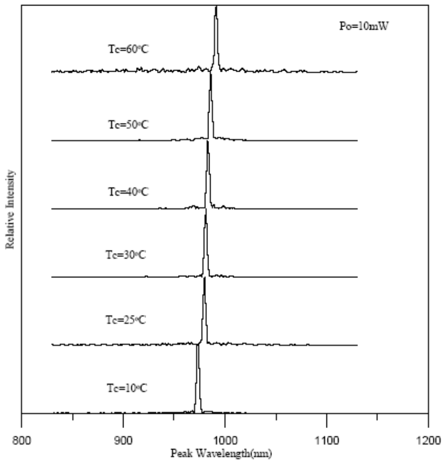


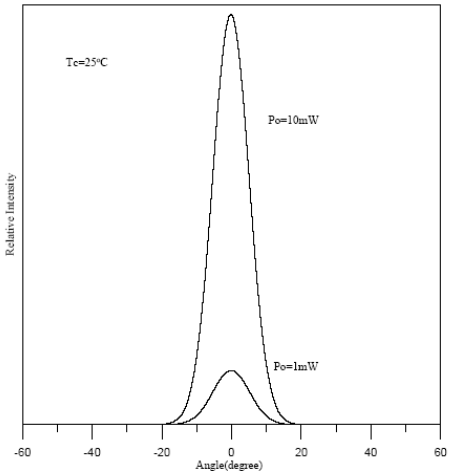


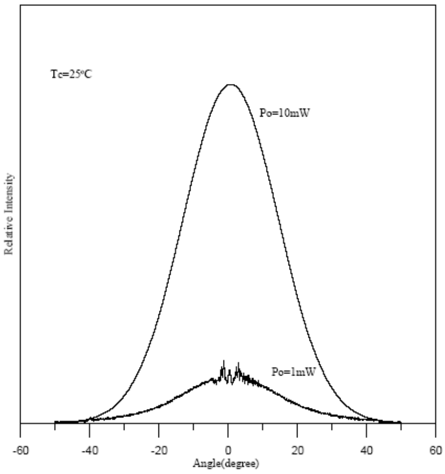

Threshold Current v.s. Case temperature


Optical Optical Power v.s. Monitor Current


Spectum v.s. Light Power


Lasing Spectrum v.s. Case temperature


Far-Field Pattern(parallel) v.s. Optical Output Power


Far-Field Pattern(Perpendicular) v.s. Optical Output Power