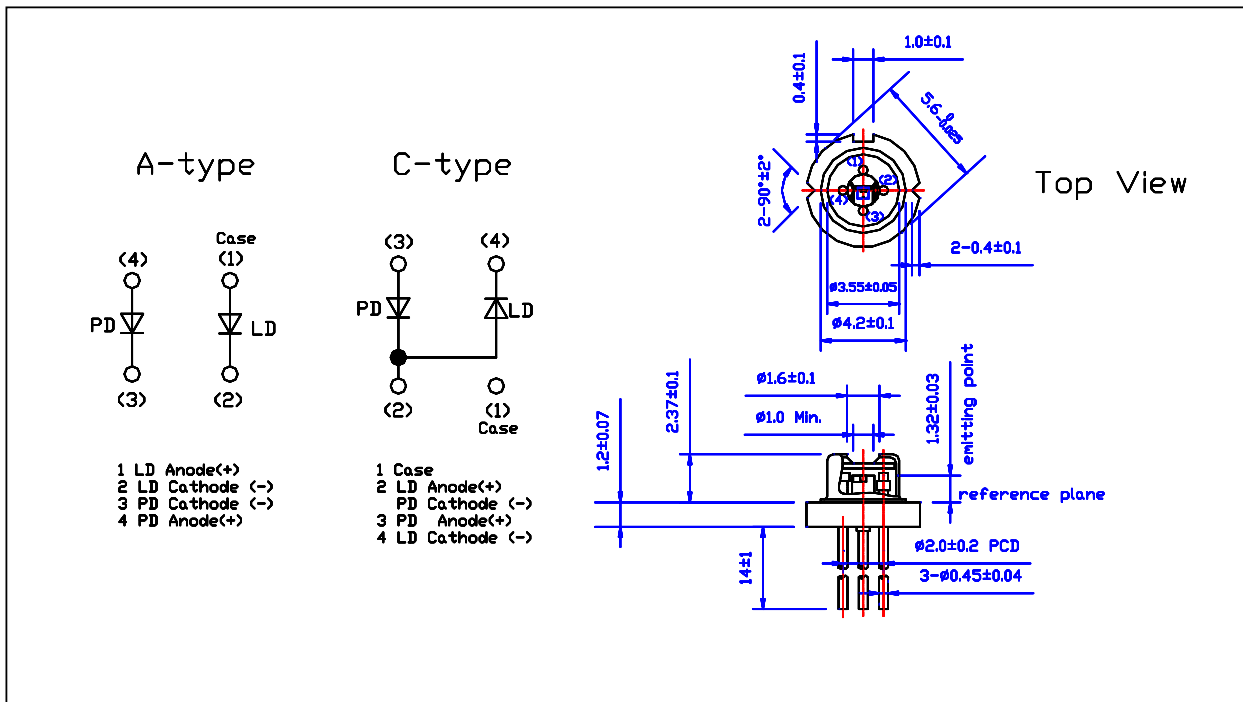


1310 nm Laser Diode**Laser Diode Technical Data Sheet****S-1310-5MG-FW**

Descriptions	1310 nm Laser Diode
Features	Uncooled Laser diode with MQW structure
	Wide operation temperature range
	Dew point below -40°C
	Both ball lens and flat window cap available

External dimensions (Units : mm)

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

Characteristic	Symbol	Rating	Unit
Optical Output Power	P_o	7	mW
LD Reverse Voltage	V_r (LD)	2	V
PD Reverse Voltage	V_r (PD)	10	V
Operation Case Temperature	Top	$-40 \sim +85$	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	$-40 \sim +85$	$^{\circ}\text{C}$

Revise by 2000/11/26

1310 nm Laser Diode**Laser Diode Technical Data Sheet
S1310-5MG-FW**Optical-electrical characteristics ($T_c = 25^{\circ}\text{C}$)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Threshold Current	I_{th}	$T_c = 25^{\circ}\text{C}$	-	13	15	mA
Threshold Current	I_{th}	$T_c = -40 \sim +85^{\circ}\text{C}$	-	-	45	mA
Operation Voltage	V_{op}	$P_o = 5\text{mW}$	-	1.3	1.5	V
Slope Efficiency	SE	$P_o = 1 \text{ to } 4\text{mW}$	0.25	0.35	-	W/A
Monitor Current (PD)	I_m	$P_o = 5\text{mW}, V_{RPD}=2\text{V}$	0.1	-	-	mA
Dark Current (PD)	I_d	$V_{RPD}=10\text{V}$	-	-	0.1	μA
Capacitance (PD)	C_t	$V_{RPD}=10\text{V}, f=1\text{MHz}$	-	10	20	pF
Lasing Wavelength	λ	$P_o = 5\text{mW}$	1290	1310	1330	nm
Spectral Width	$\Delta\lambda$	$P_o = 5\text{mW}$	-	3	5	nm
Optical Output Power	P_o	CW, Kink free	5	-	-	mW
P-I Kink	K_i	$P_o < 5\text{mW}$	-	-	20	%
Rise and fall time	t_r, t_f	$P_o = 5\text{mW}, 10\% \sim 90\%$	-	-	0.7	ns
Tracking Error	TE	$P_o = 5\text{mW}, V_{RPD}=1\text{V}$	-0.7	-	0.7	dB
Beam Divergence (horizontal)	θ_j	$P_o = 5\text{mW}$	-	18	-	deg.
Beam Divergence (vertical)	θ_b	$P_o = 5\text{mW}$	-	38	-	deg.