

Technical Data

T-41-05

TOLD9200(s)

MAXIMUM RATINGS ($T_C = 25^\circ\text{C}$)

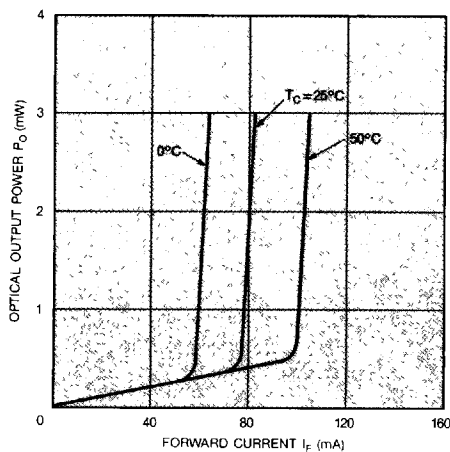
CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	P_O	3	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operation Case Temperature	T_C	-10 ~ 50	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 ~ 85	$^\circ\text{C}$

OPTICAL-ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$)

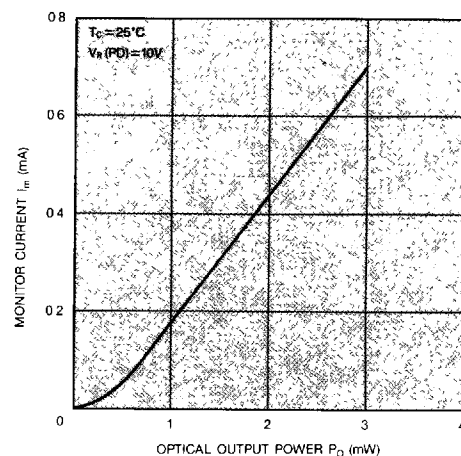
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Threshold Current	I_{th}	CW operation	—	70	90	mA
Operation Current	I_{op}	$P_O = 2\text{mW}$	—	75	100	mA
Operation Voltage	V_{op}	$P_O = 2\text{mW}$	—	2.3	3.0	V
Lasing Wavelength	λ_p	$P_O = 2\text{mW}$	660	670	680	nm
Beam Divergence	$\theta_{//}$	$P_O = 2\text{mW}$	4	7	12	deg.
	θ_{\perp}	$P_O = 2\text{mW}$	27	34	40	
Monitor Current	I_m	$P_O = 2\text{mW}$	0.15	0.45	0.70	mA
PD Dark Current	$I_D(PD)$	$V_{rev} = 5\text{V}$	—	—	100	nA
PD Total Capacitance	$C_T(PD)$	$V_{rev} = 5\text{V}, f = 1\text{MHz}$	—	—	20	pF

Examples of Typical Characteristics

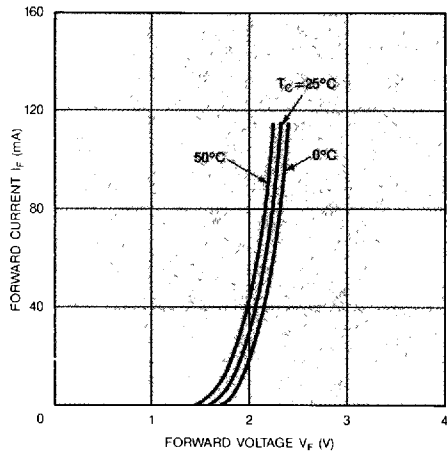
Optical Output Power vs. Forward Current



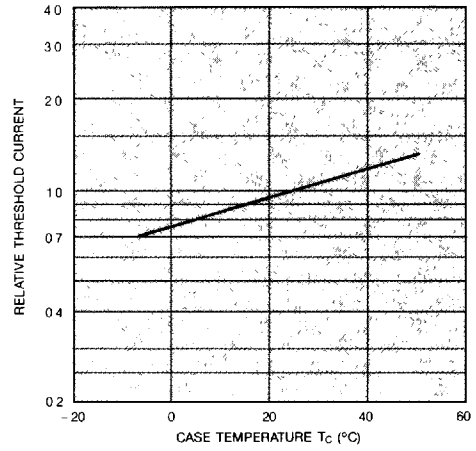
Monitor Current vs. Optical Output Power



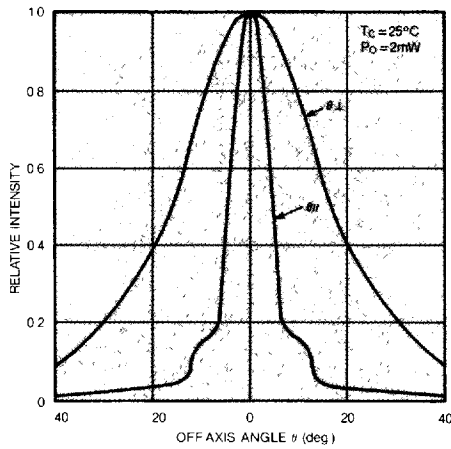
Forward Current vs. Forward Voltage



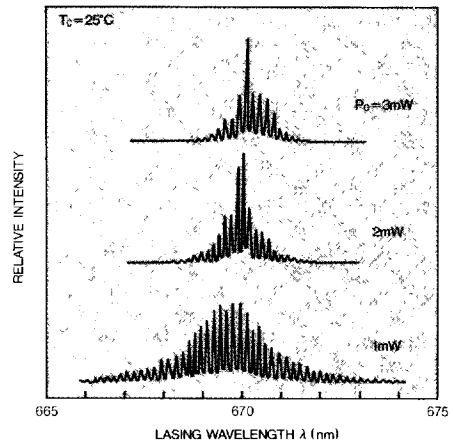
Case Temperature Dependence of Threshold Current



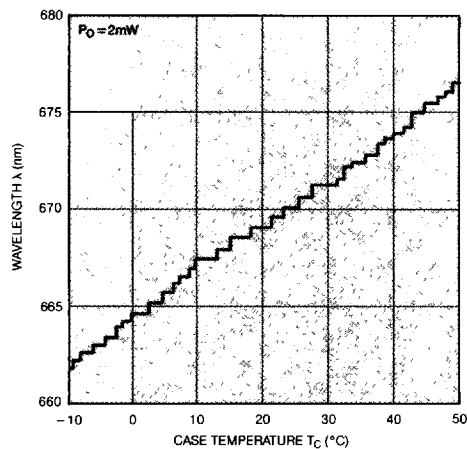
Far-Field Patterns



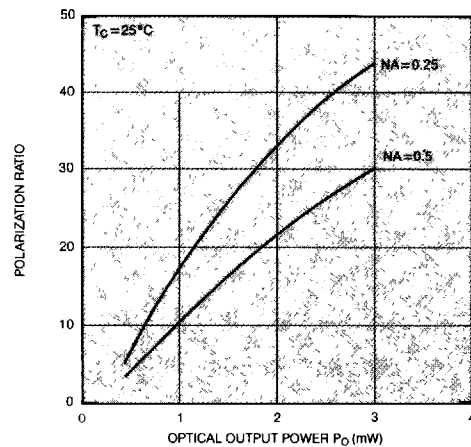
Lasing Spectrum



Case Temperature Dependence of Lasing Wavelength



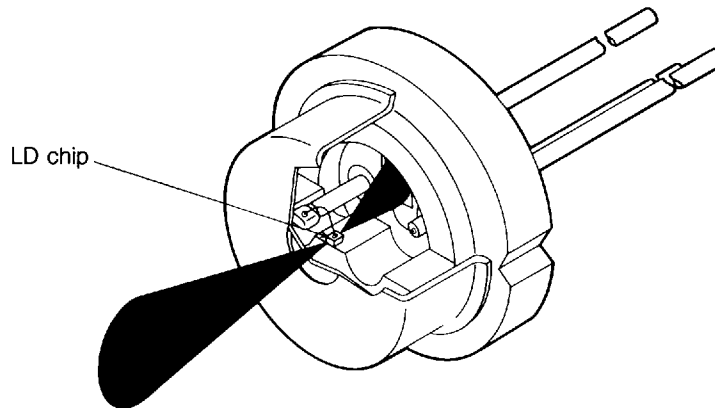
Polarization Ratio vs. Optical Output Power



Package

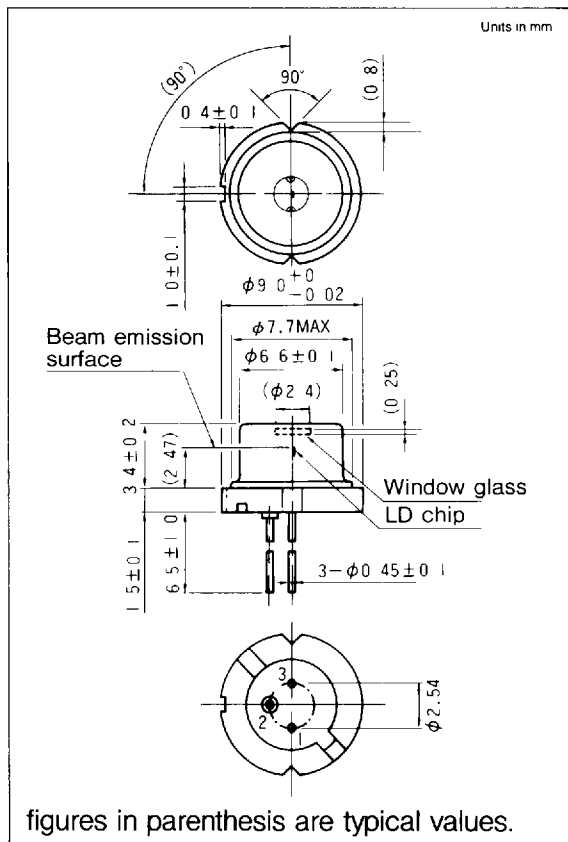
T-91-20

Interior Diagram of VLD Package

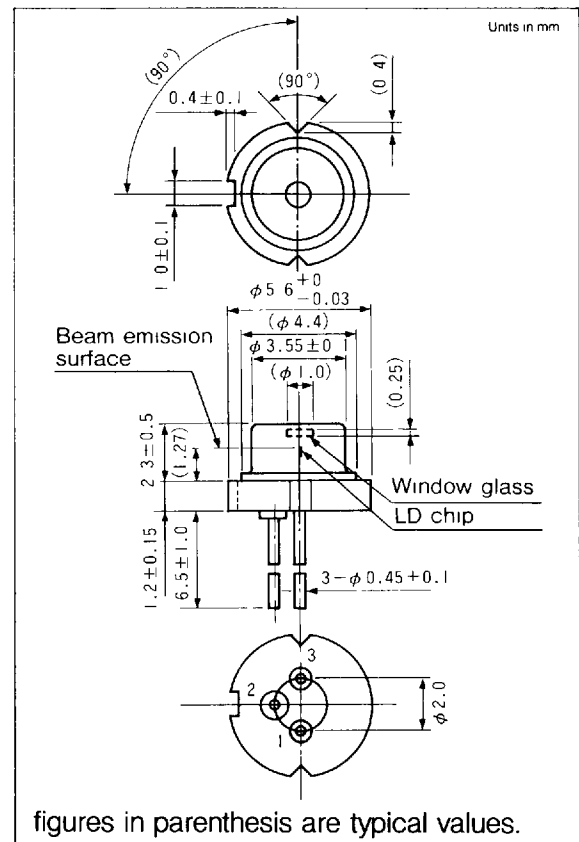


Dimensions of Package

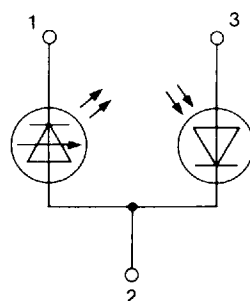
Standard Package



Small Package



Pin Connection



1. Laser diode cathode
2. Laser diode anode and photodiode cathode
3. Photodiode anode

※ Case and pin no. 2 are in common.