

TOLD9211(s)

MAXIMUM RATINGS (T_C = 25°C)

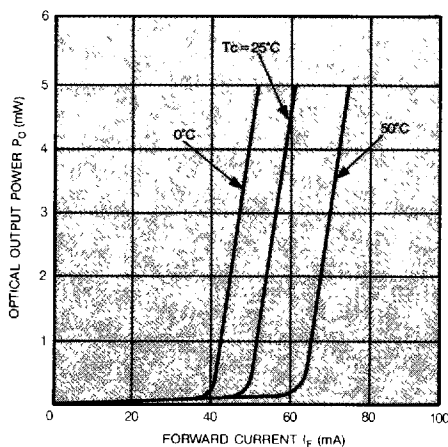
CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	P _O	5	mW
LD Reverse Voltage	V _{R(LD)}	2	V
PD Reverse Voltage	V _{R(PD)}	30	V
Operation Case Temperature	T _C	-10~50	°C
Storage Temperature	T _{stg}	-40~85	°C

OPTICAL-ELECTRICAL CHARACTERISTICS (T_C = 25°C)

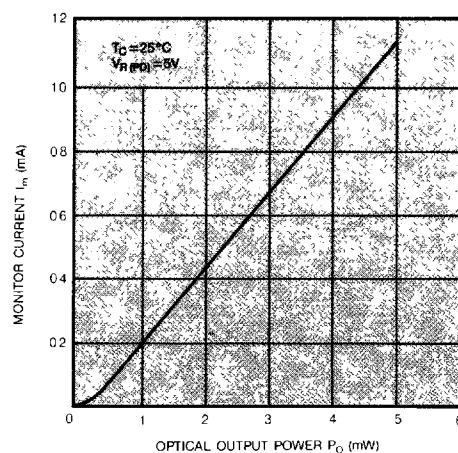
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Threshold Current	I _{th}	CW operation	—	40	60	mA
Operation Current	I _{op}	P _O = 4mW	—	50	70	mA
Operation Voltage	V _{op}	P _O = 4mW	—	2.3	3.0	V
Lasing Wavelength	λ _p	P _O = 4mW	660	670	680	nm
Beam Divergence	θ _∥	P _O = 4mW	5	8	11	deg.
	θ _⊥	P _O = 4mW	25	31	40	
Monitor Current	I _m	P _O = 4mW	0.3	1.0	1.7	mA
PD Dark Current	I _{D(PD)}	V _{rev} = 5V	—	—	100	nA
PD Total Capacitance	C _{T(PD)}	V _{rev} = 5V; f = 1MHz	—	—	20	pF

Examples of Typical Characteristics

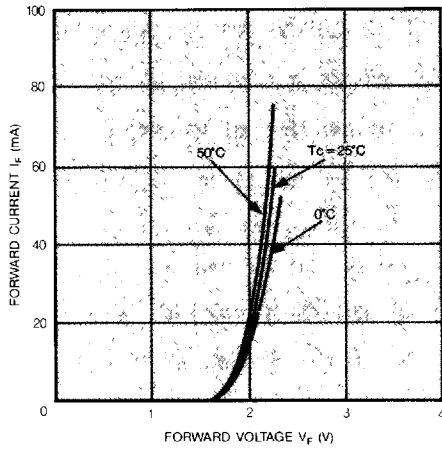
Optical Output Power vs. Forward Current



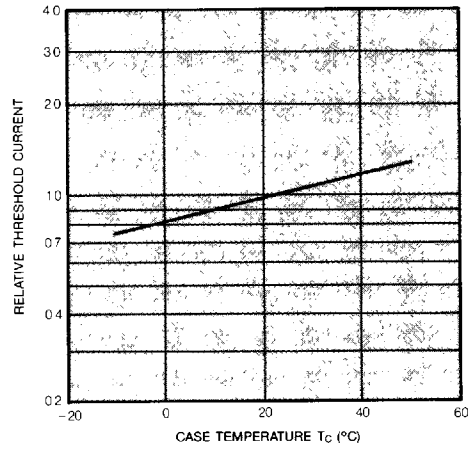
Monitor Current vs. Optical Output Power



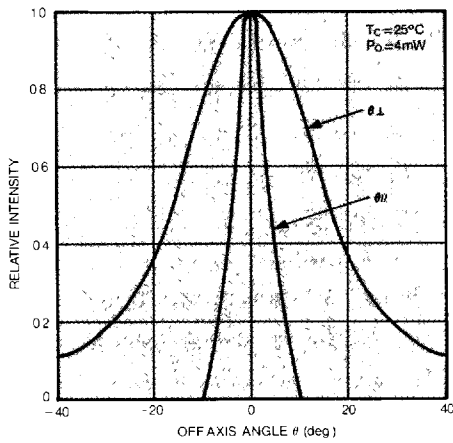
Forward Current vs. Forward Voltage



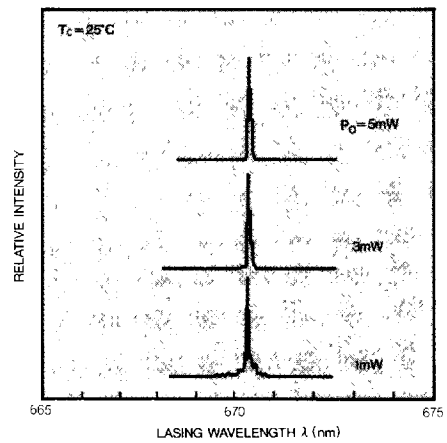
Case Temperature Dependence of Threshold Current



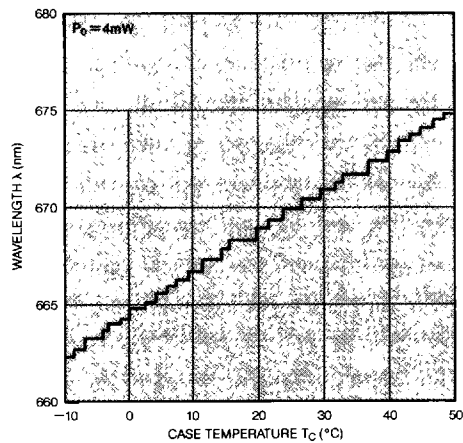
Far-Field Patterns



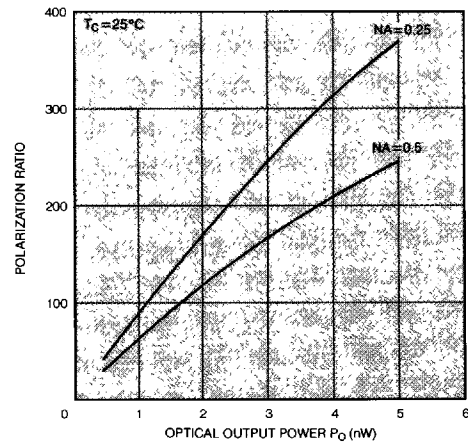
Lasing Spectrum



Case Temperature Dependence of Lasing Wavelength



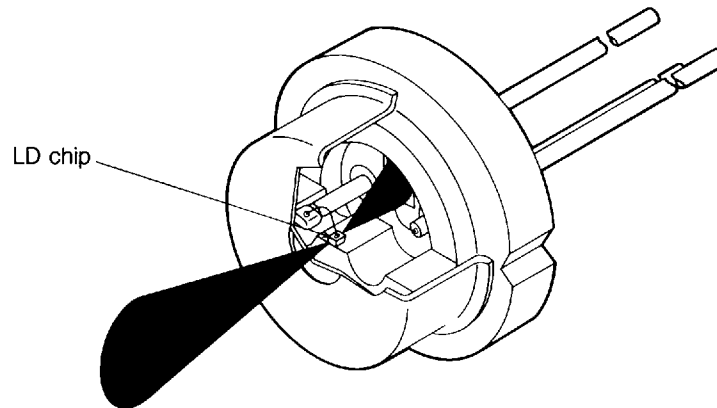
Polarization Ratio vs. Optical Output Power



Package

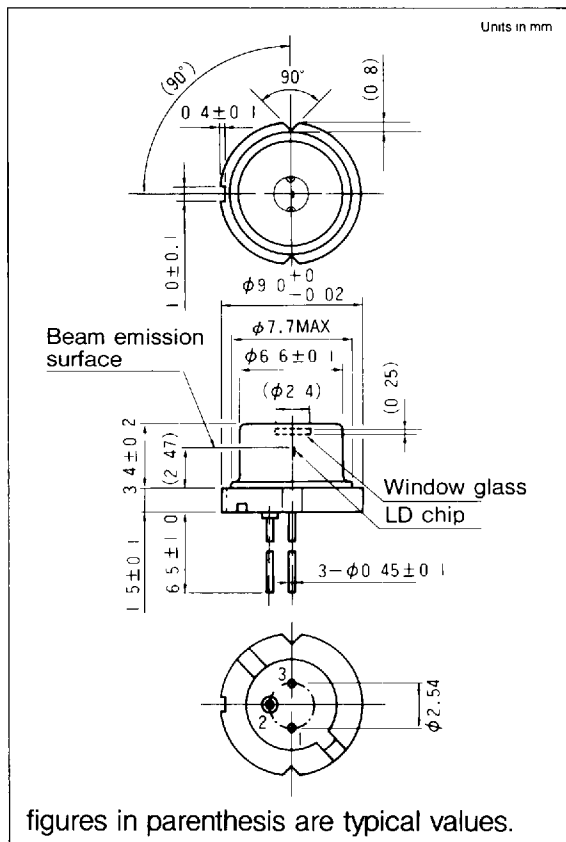
T-91-20

Interior Diagram of VLD Package

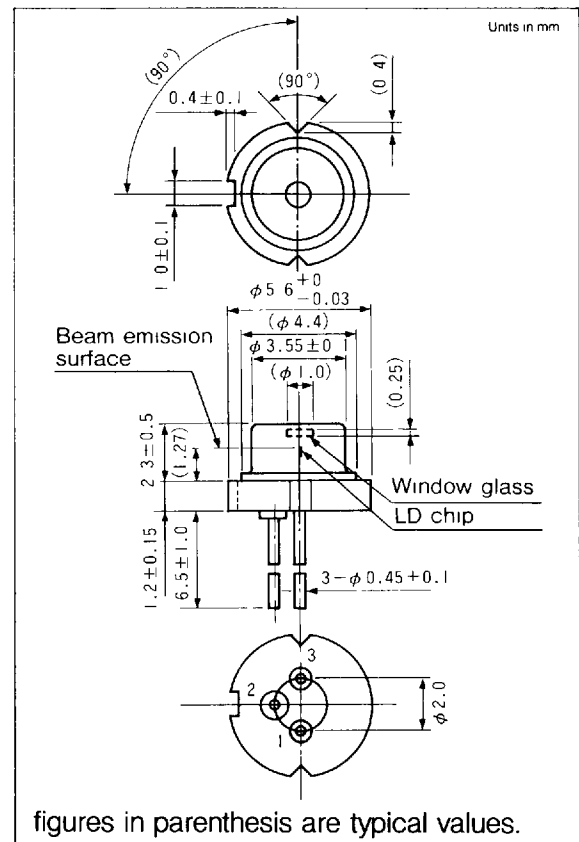


Dimensions of Package

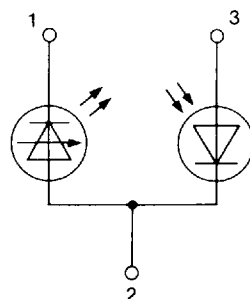
Standard Package



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.