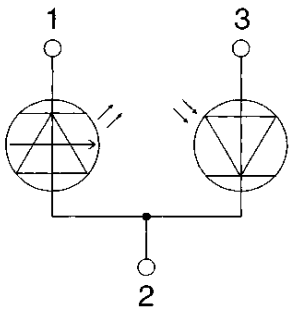
- High power index guided type MQW InGaAlP VLD with High Monitor Current
- Package flange: ø9mm
- Applications include:
  Bar code scanners, medical systems, laser beam printer, etc.

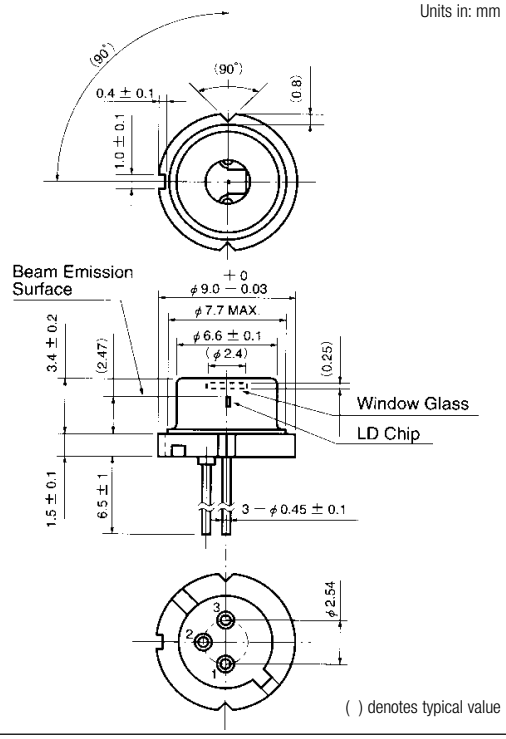
Pin Connection



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

case and pin no. 2 are in common

Units in: mm



JEDEG	—
EIAJ	—
TOSHIBA	15 — 7B2

Maximum ratings (Tc=25°C)

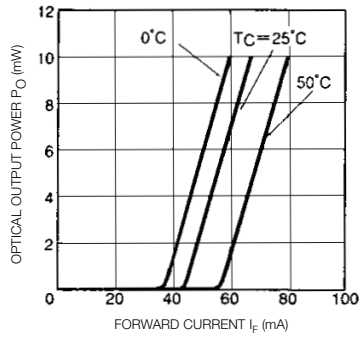
Characteristic	Symbol	Rating	Unit
Optical Output Power(CW)	P_O	10	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	30	V
Operation Case Temperature	T_C	-10～50	°C
Storage Temperature	T_{stg}	-40～85	°C

Optical-electrical characteristics (Tc=25°C)

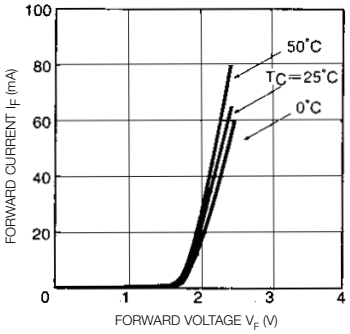
Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Threshold Current	I_{th}	CW operation	—	45	65	mA
Operation Current	I_{op}	Po=10mW	—	70	90	mA
Operation Voltage	V_{op}	Po=10mW	—	2.4	3.0	V
Lasing Wavelength	λ_P	Po=10mW	660	670	680	nm
Beam Divergence	$\theta_{//}$	Po=10mW	5	8	11	°
	$\theta_{\perp}$	Po=10mW	15	18	23	°
Monitor Current	I_m	Po=10mW	0.5	1.5	3.0	mA
PD Dark Current	$I_{D(PD)}$	V_R=5V	—	—	100	nA
PD Total Capacitance	$C_{T(PD)}$	V_R=5V, f=1MHz	—	—	20	pF

Examples of Typical Characteristics

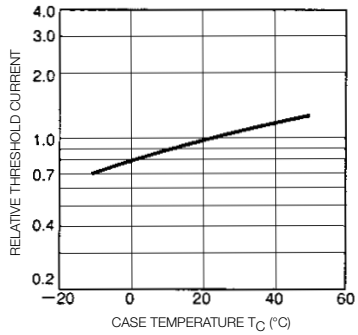
Optical Output Power vs. Forward Current



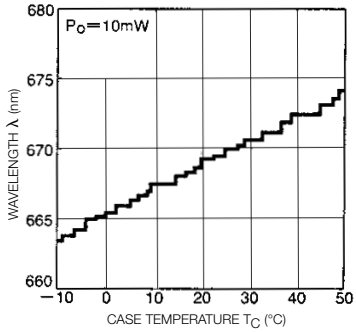
Forward Current vs. Forward Voltage



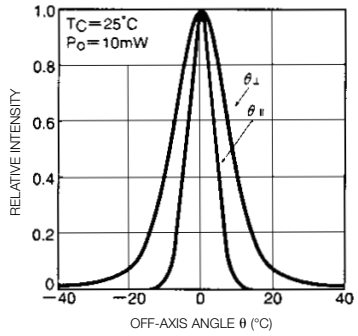
Case Temperature Dependence of Threshold Current



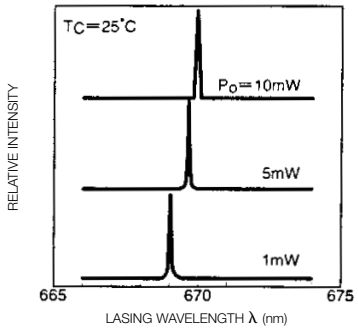
Case Temperature Dependence of Lasing Wavelength



Far-field Patterns



Lasing Spectrum



Monitor current vs. Optical Output Power