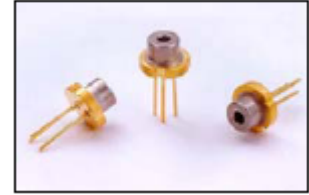




LDMP-1550-030W-93 TECHNICAL DATA



Pulsed Infrared Laser Diode

Structure: InGaAsP/InGaAsP MQW structure, MOCVD

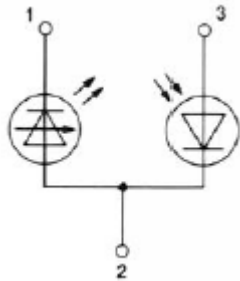
Lasing wavelength: 1050 nm

Peak power: 30 W

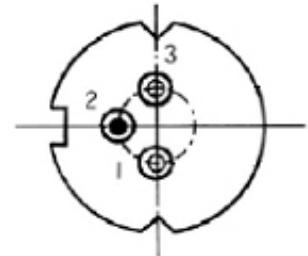
Package: 9 mm

NOTE!
LASERDIODE
MUST BE COOLED!

PIN CONNECTION:



- 1) Laserdiode cathode
- 2) Laserdiode anode and photodiode anode
- 3) Photodiode cathode



Absolute Maximum Ratings (Tc = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Peak Output Power	P _o	30	mW
Peak Reverse Voltage	V _{rm}	2	V
Operating Case Temperature	T _C	-55 .. +65	°C
Storage Temperature	T _{STG}	-55 .. +85	°C

Optical-Electrical Characteristics (Tc = 25°C) Pulse width 150ns, duty cycle 0.1%, 6KHz

CHARACTERISTIC	SYMBOL	TEST CONDITION	TYP	UNIT
Center Wavelength	λ _p	P _o = 20 W	1050	nm
Wavelength Tolerance		P _o = 20 W	±30	nm
Peak Output Power	P _o	pulsed mode	30	W
Peak Forward Current	I _f	P _o = 20 W	75	A
Pulse Width Max.	T _W	P _o = 20 W	75	ns
Duty Factor	D _F	P _o = 20 W	0.0075	%
Threshold Current	I _{th}	P _o = 20 W	2.5	A
Peak Forward Voltage	V _f	P _o = 20 W	40	V
Beam Divergence FWHM	Θ	P _o = 20 W	20	degree
Beam Divergence FWHM	Θ _⊥	P _o = 20 W	40	degree
Source Size	WxH		370x200	μm
Number of Laser Diode Element			3	pcs.



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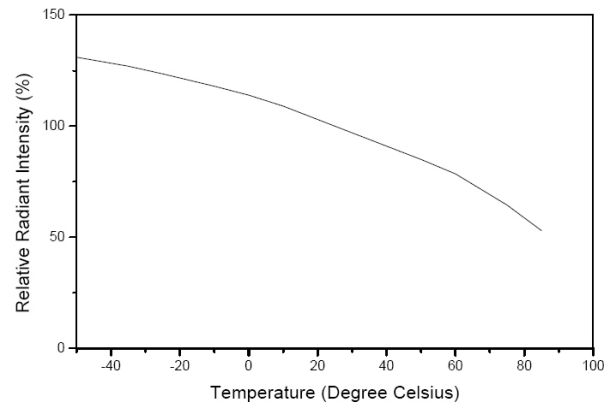
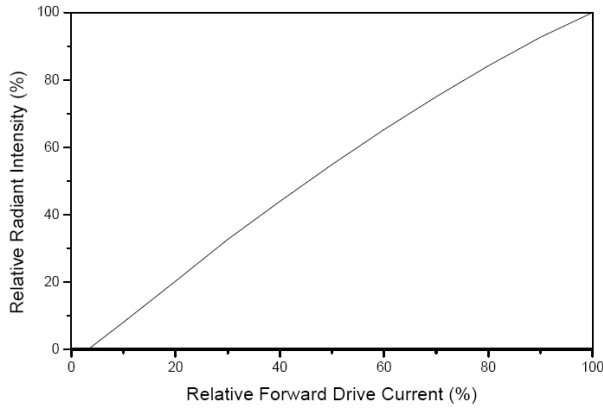
WIEDNER HAUPTSTRASSE 76
TEL. +43 1 586 52 43 -0, FAX. -44, OFFICE@ROITHNER-LASER.COM

1040 VIENNA

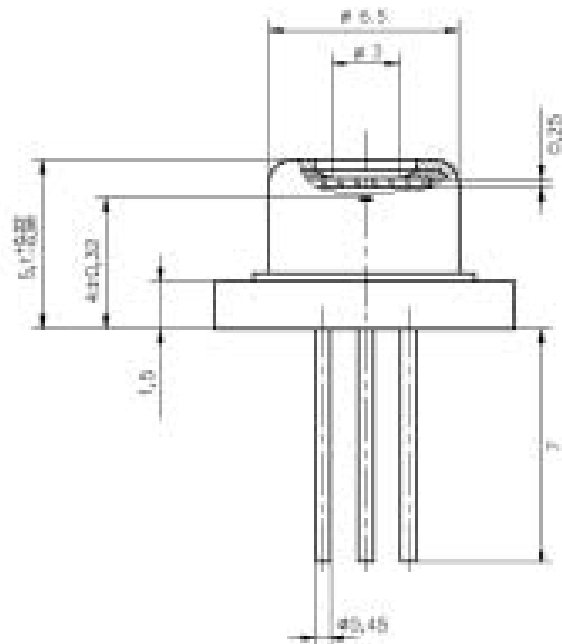
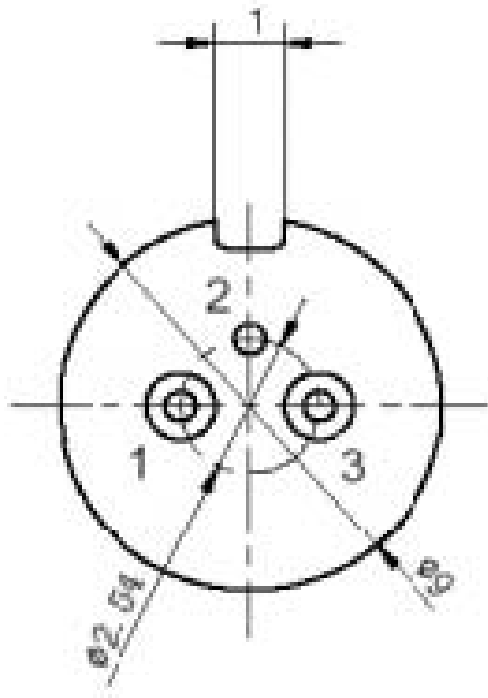
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TYPICAL PERFORMANCE:



PACKAGE DIMENSIONS:





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Operating notes:

1. The LDMP series LD should work at pulse condition. It means that the working current must be pulse, not CW. The pulse width should be less than 150ns. The duty cycle is no more than 0.1%. The power supply should be constant current source.
2. Be sure that the operating current is not exceed the specified operating current, or else which will accelerate aging, shorten lifetime or even damage devices.
3. Increase the current gradually to the specified operating value. For shutting down the laser diode, please decrease the current to zero gradually, and then turn off the power. Pleaser sure that the power supply have no current overshoot at any time. The current overshoot can damage the laser diodes.
4. Be careful to keep the facet cleaning. Contamination of facet will result in rapid degradation of devices.
5. The high power laser diode is very sensitive to static. Please caution about static during operating with the laser diode.
6. Caution! Don't look at the laser light directly, because it's harmful to eyes.
7. A clean, dry and ventilated environment should be available when storing and operation. Dew can damage the laser diodes.
8. Take care of the mentioned storage temperature.