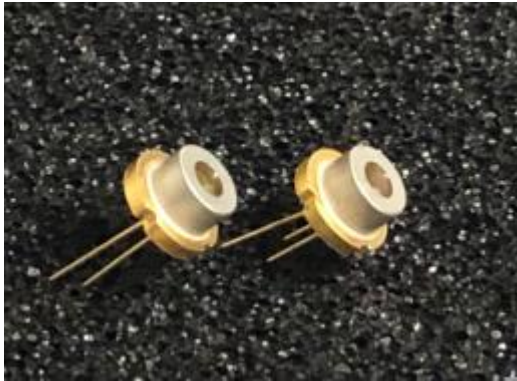


Pulsed Laser Diode

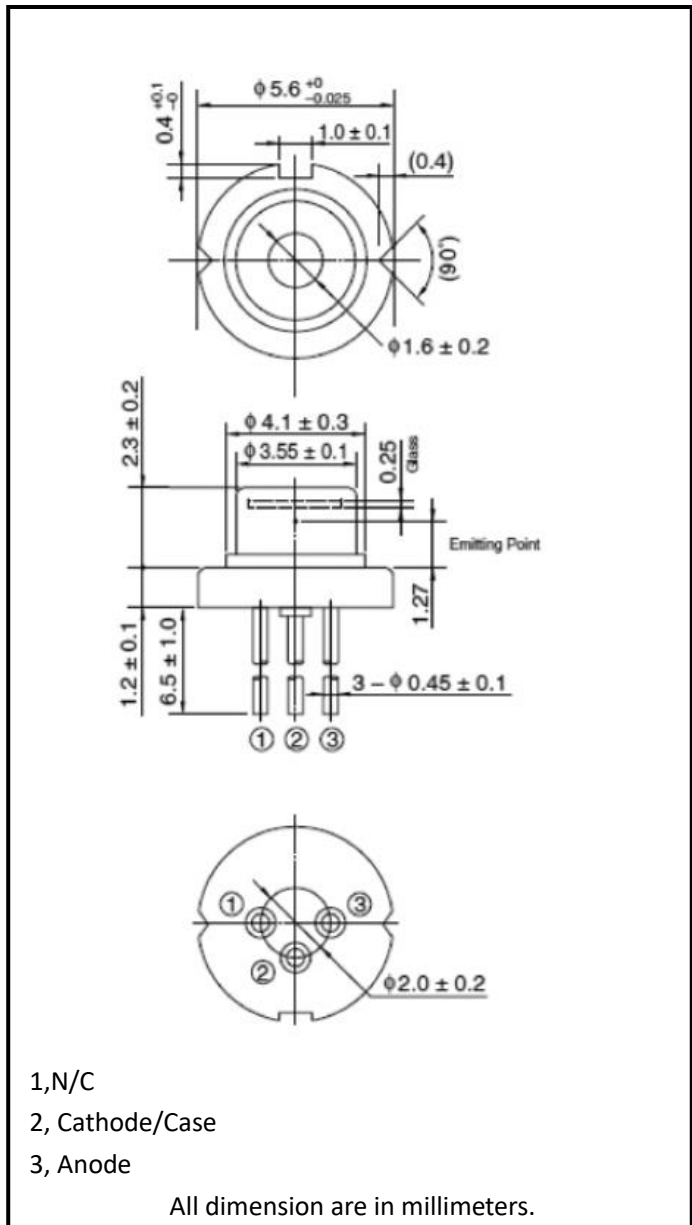


Description

OTRON PLD series are applied for laser range finders For golfers, hunters, civil engineers , lidar etc. distance Measurement.

Features

- * Optical peak power up to 3W
- * Laser wavelength 1550nm



Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Values		Unit
Peak output power	P _D	-	10	W
Forward current	I _F	-	80	A
Pulse width (FWHM)	t _p	-	150	ns
Duty cycle	dc	-	0.1	%
Reverse voltage	V _R	-	6	V
Operating temperature	T _{opr.}	-40~+85		°C
Storage temperature	T _{stg.}	-40~+100		°C



ELECTRO-OPTICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak output power	P _o		-	3	-	W
Peak wavelength	λ _p		-	1550	-	nm
Operation mode			-	CW	-	
Pulse width	t		-	200	-	ns
Pulse repetition frequency	f			5		KHz
Duty cycle	D			0.1		%
Aperture size	W*h			90*10		um ²
Cavity length	L			2000		um
Chip width	W			500		um
Chip height	H			150		um
Threshold current	I _{th}			0.5		A
Operating current	I _{op}			8		A
Operating voltage	V _{op}			1.49		V
Slope efficiency	$\eta_d = P_o / (I_{op} - I_{th})$			0.43		W/A
Total conversion efficiency	$\eta = P_o / (I_{op} \times V_{op})$			27		%
Spectral width	Δλ			15		nm
Slow axis divergence	θ			10		°
Fast axis divergence	θ _⊥			36		°
Temperature coefficient of wavelength	Δλ/ΔT			0.28		nm/C
Polarization				TE		

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission.

Specifications are subject change without notice.

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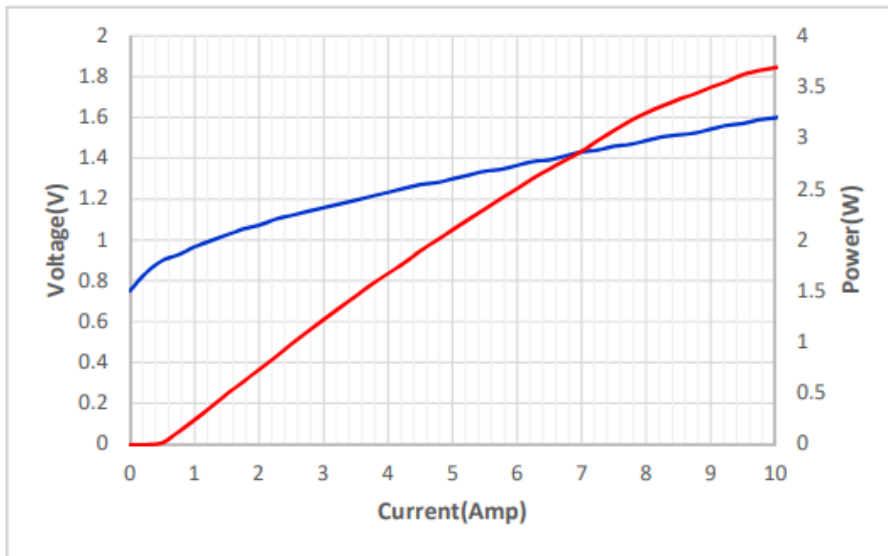
FAX:+86-21-54971823

EMAIL: frank.shuai@e-otron.com

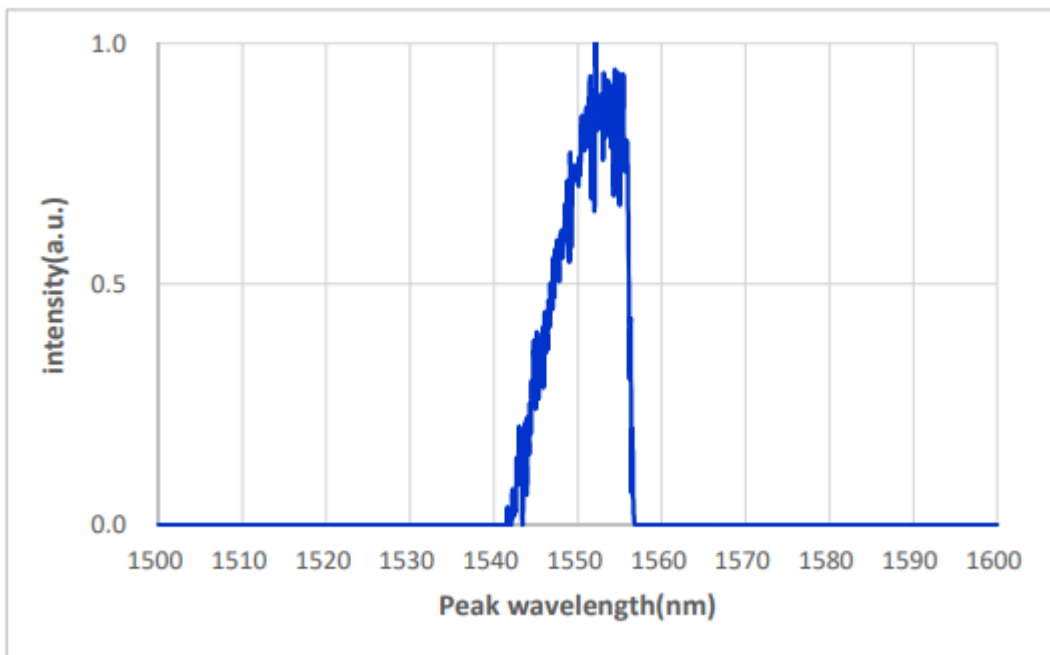
<http://www.e-otron.com>

Forward current Vs. Peak power($T_a=25^{\circ}\text{C}$)

Forward voltage Vs. Peak power($T_a=25^{\circ}\text{C}$)



Relative spectral emission



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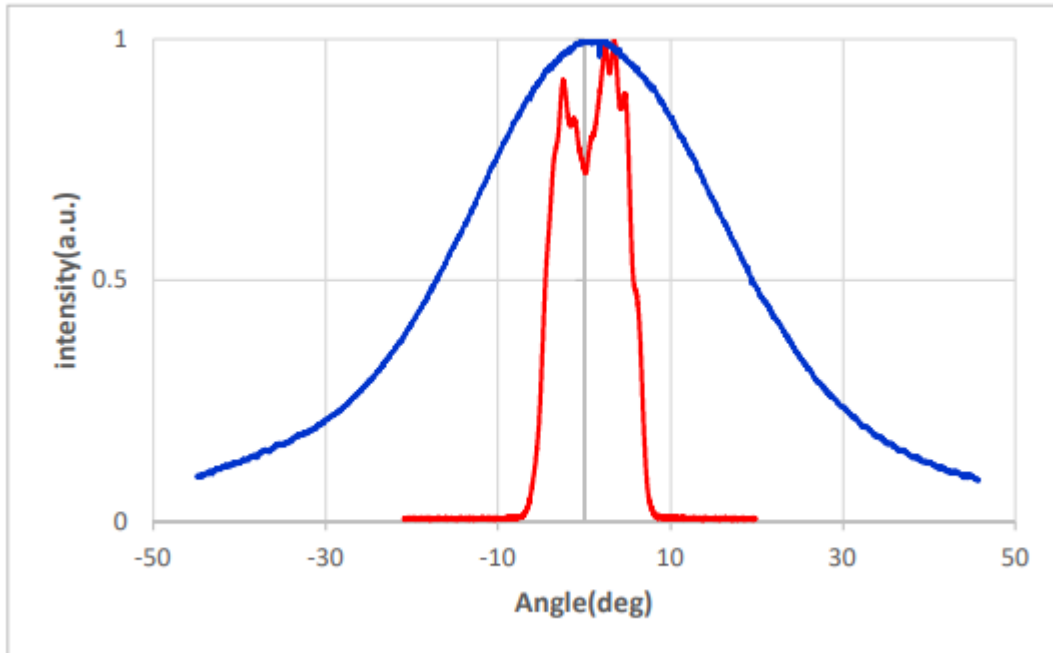
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Far field emission parallel and perpendicular to junction plane



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