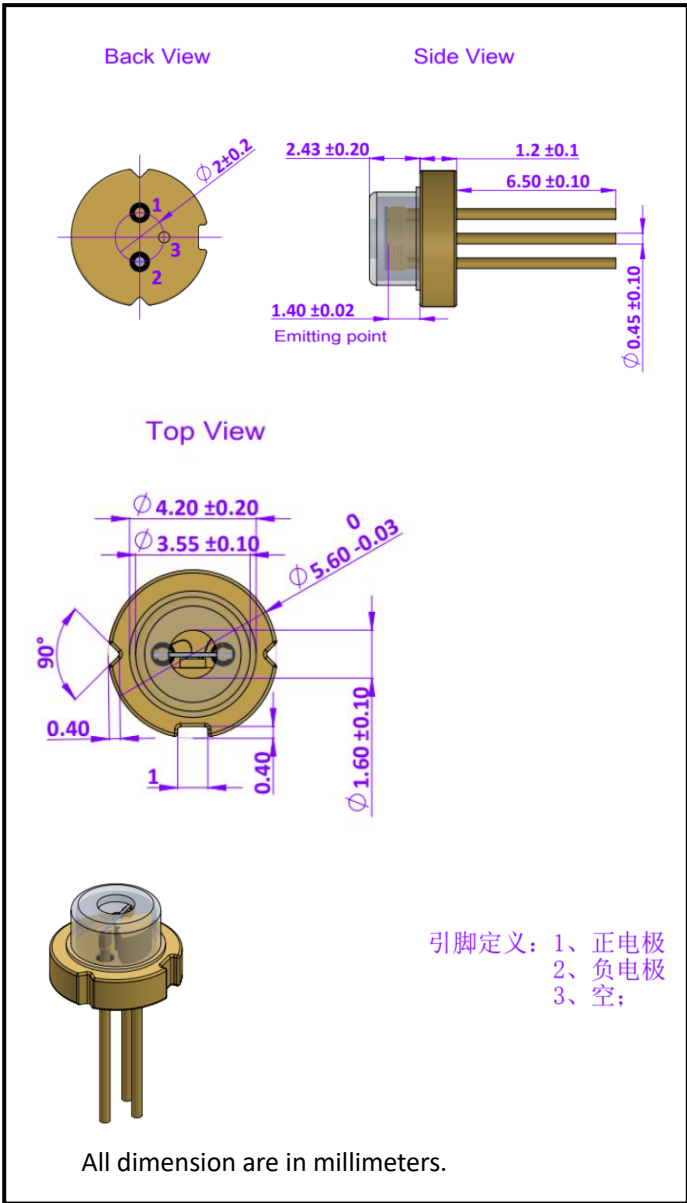
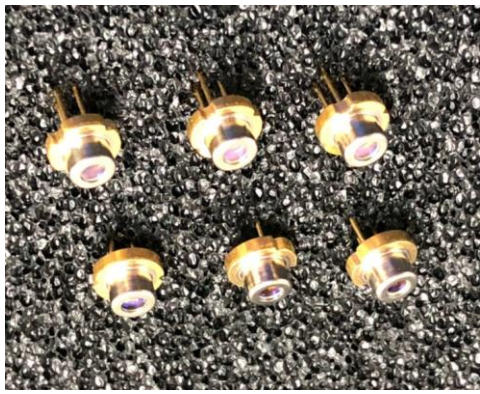


Pulsed Laser Diode



Description

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

It's 75W PLD with fast axis collimators.

Features

- * Optical peak power up to 75W
- * Laser wavelength 905nm

Absolute Maximum Ratings (Ta=25°C unless otherwise stated)

Item	Symbol	Values	Unit
Peak output power	P _D	- 90	W
Forward current	I _F	- 30	A
Pulse width (FWHM)	t _p	- 100	ns
Duty cycle	dc	- 0.1	%
Reverse voltage	V _R	- 20	V
Operating temperature	Topr.	-40~+85	°C
Storage temperature	Tstg.	-40~+105	°C
Soldering temperature*1	Tsol.	260	°C

*1: 3mm from case for 10sec



ELECTRO-OPTICAL CHARACTERISTICS (Ta=25 °C)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak output power	P _o		-	75	-	mW
Peak wavelength	λ _p		895	905	915	nm
Operation mode			-	QCW	-	
Pulse width	t		-	100	-	ns
Pulse repetition frequency	f			5		KHz
Duty cycle	D			0.1		%
Aperture size	W*h			300*10		um ²
Cavity length	L			750		um
Chip width	W			400		um
Chip height	H			150		um
Threshold current	I _{th}			0.80		A
Operating current	I _{op}		21	22	23	A
Operating voltage	V _{op}		13.5	14.2	14.7	V
Turn on voltage	V _{on}			4.2		V
Series resistance	R _s			0.454		Ω
Slope efficiency	$\eta d = P_o / (I_{op} - I_{th})$			3.3		W/A
Total conversion efficiency	$\eta = P_o / (I_{op} \times V_{op})$			38		%
Spectral width	Δλ			2		nm
Slow axis divergence	θ		10	12	14	°
Fast axis divergence	θ _⊥		8	9	10	°
Beam divergence angle width	θ _{⊥p}		-3	0	+3	°
Beam pointing angle (vertical)	θ _{⊥p}		-3	0	+3	°
Temperature coefficient of wavelength	Δλ/ΔT			0.28		nm/C

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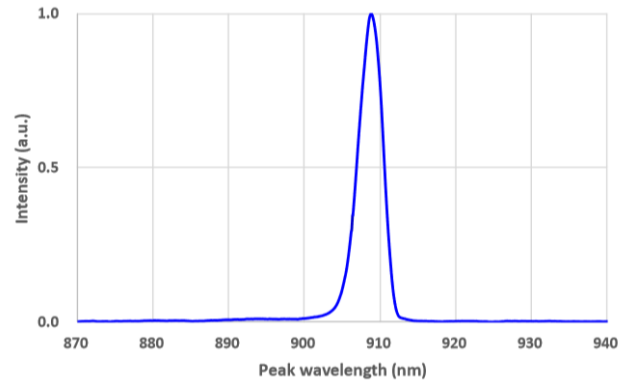
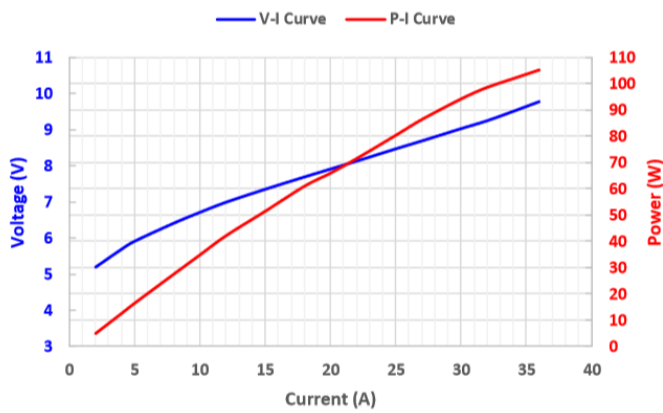
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<http://www.e-otron.com>

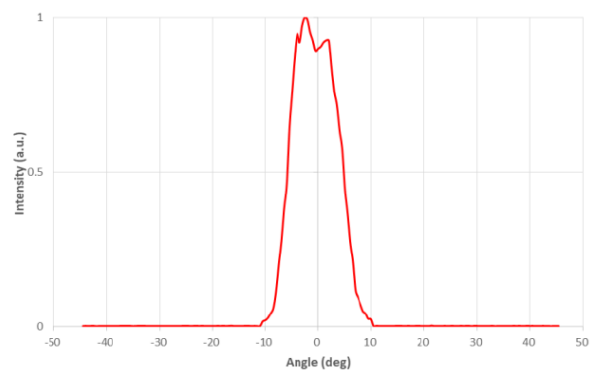
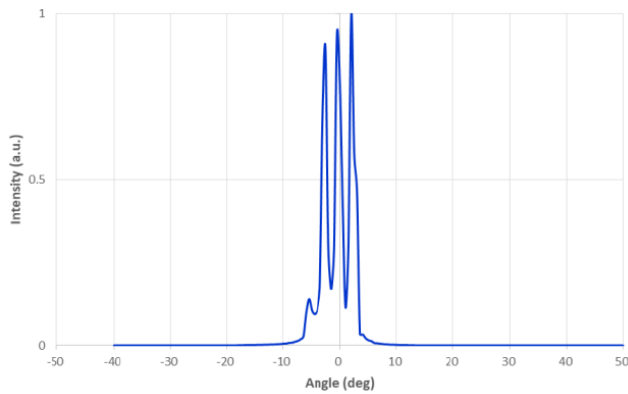
Forward current/voltage Vs. Peak power(Ta=25°C)

Relative spectral Emission(Ta=25°C)



Far field pattern characteristi (VFF)

Far field pattern characteristics (HFF)



Far-field pattern (FFP) @Iop=22A (Pw=200ns, f=5kHz),

