

905nm 75W Pulsed Laser Diodes

Model: OPT905TO75-J

Features

- 3stack PLD
- Laser wavelength: 905 nm
- Peak output power: ≥ 75 W
- Optical aperture size: $200 \mu\text{m} \times 10 \mu\text{m}$



Applications

- LiDAR
- Laser ranging
- Safety monitoring
- Scientific research test

Optical Characteristics at $t_{RT}=25^\circ\text{C}$

	Min.	Typ.	Max.	Units
Wavelength of peak radiant intensity λ_m	895	905	915	nm
Spectral bandwidth $\Delta\lambda$ at 50% intensity points		7		nm
Wavelength temperature coefficient		0.28		nm/ $^\circ\text{C}$
Beam spread (50% peak intensity)				
Parallel to junction plane //	7	9	11	Degrees
Perpendicular to junction plane \perp	22	25	27	Degrees

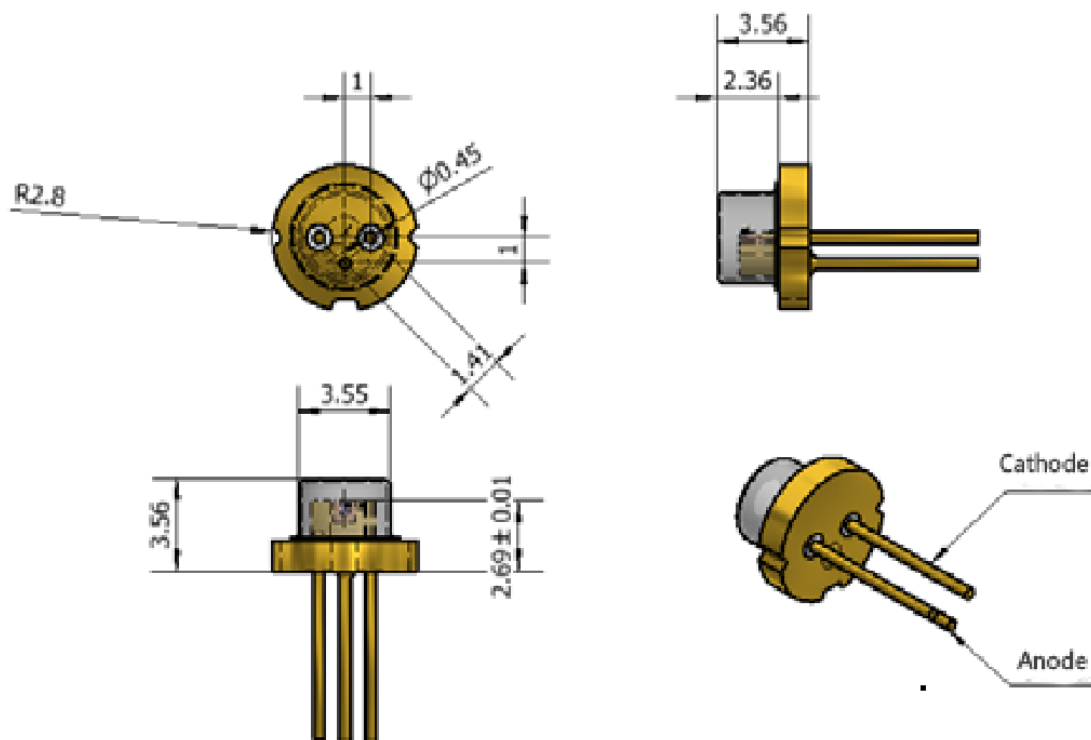
Optical Characteristics at $t_{RT}=25^\circ\text{C}$, $t_w=100$ ns, $D=0.01\%$, $I_F=20$ A

Parameter		Units
Number of elements	1×3	
Peak output power (typ.)	75	W
Emitting area	200×10	μm
Threshold, I_{th} typ.	850	mA
Forward voltage at I_F	9.5	V

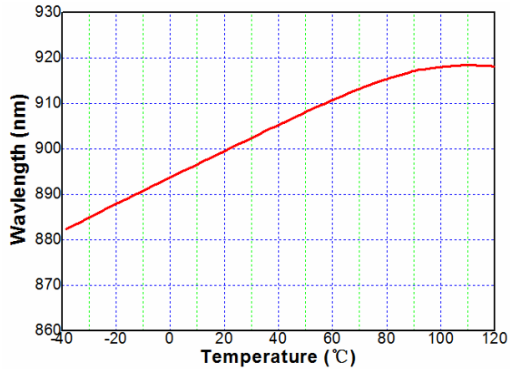
Absolute Maximum Ratings

Maximum ratings	Limiting values
Max. current	35A
Peak reverse voltage	3V
Pulse duration	200ns
Duty factor	0.1%
Temperature	
- Storage	-40°C to +105°C
- Operating	-40°C to +100°C
Lead soldering	
- 1 0 seconds max at	260°C

Package Drawings



Wavelength-Temperature Characteristics



Relative output power-Temperature Characteristics

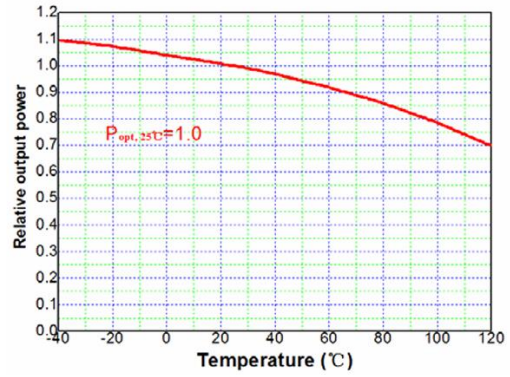
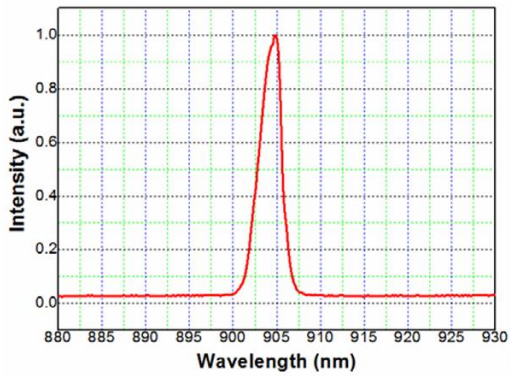
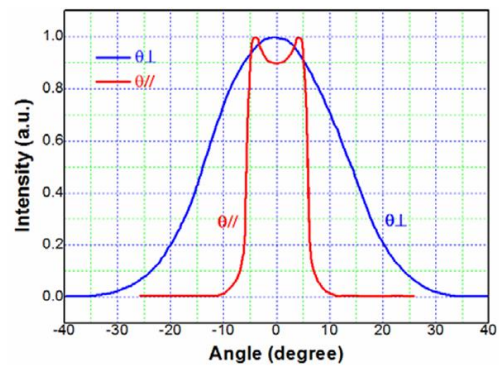


图 3. 波长-温度 ($I_F = 30A$)

Spectral Characteristics



Far Field Pattern (NFP)



Near Field Pattern (NFP)

