

## 905nm 75W Pulsed Laser Diodes

### Model: OPT905TO75-J

#### Features

- 3stack PLD
- Laser wavelength: 905 nm
- Peak output power:  $\geq 75$  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 $\lambda_m$	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

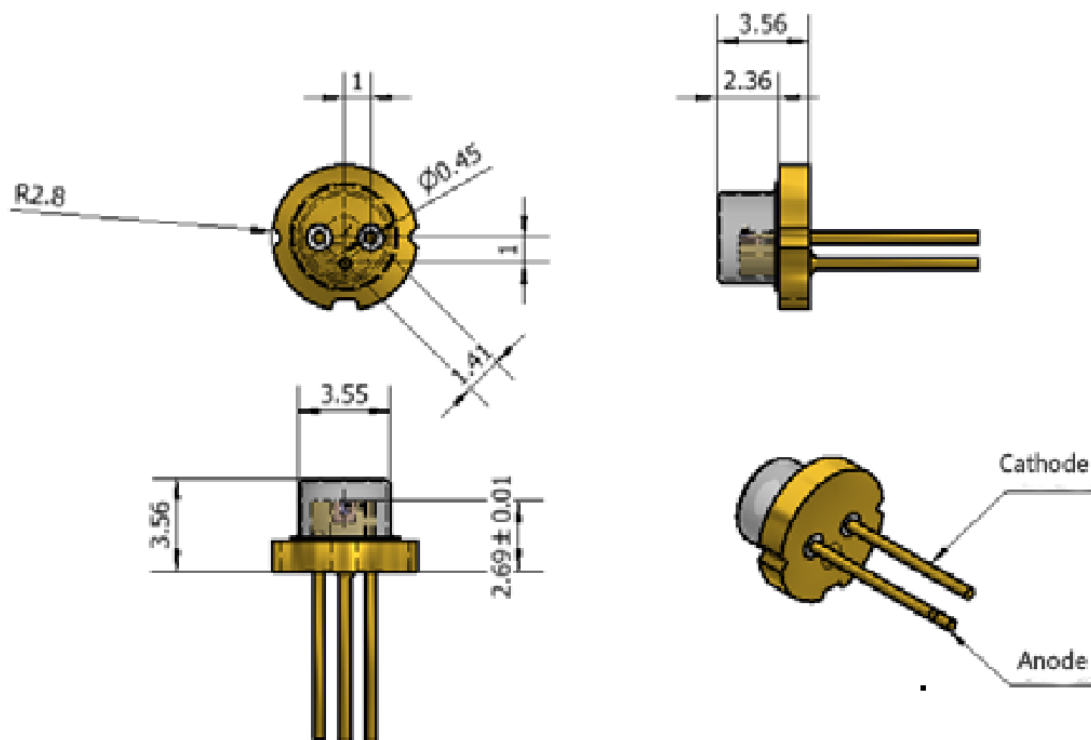
#### Optical Characteristics at $t_{RT} = 25^\circ\text{C}$ , $t_w = 100$ ns, $D = 0.01\%$ , $I_F = 20$ A

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

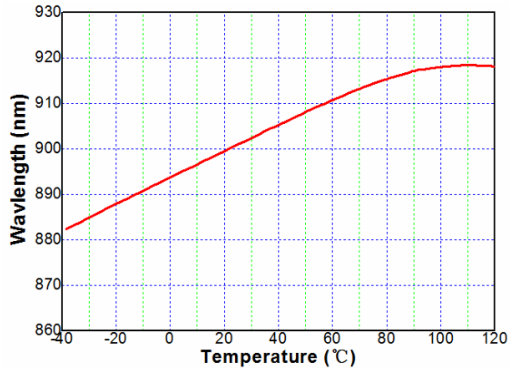
### Absolute Maximum Ratings

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

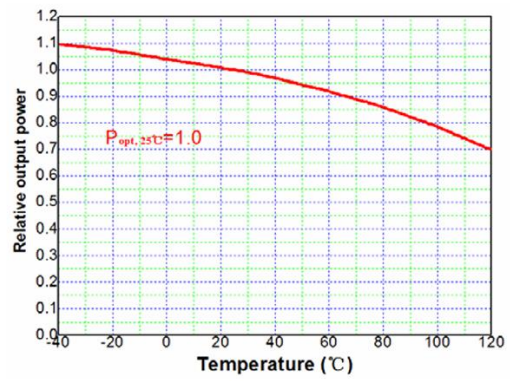
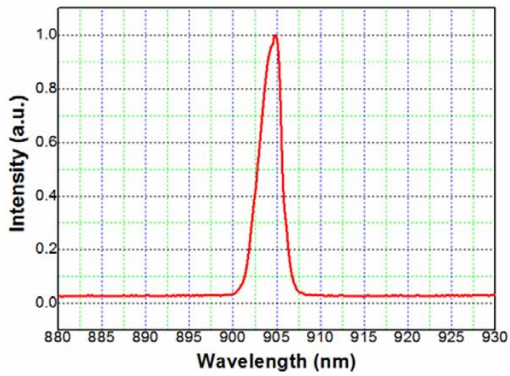
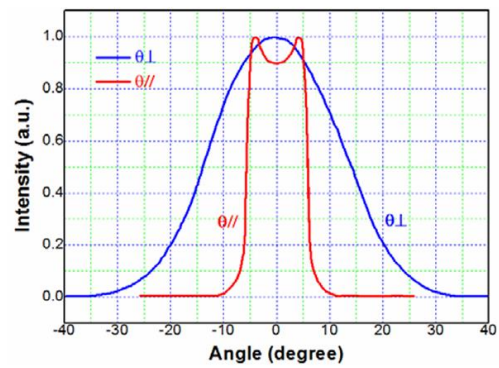


图 3. 波长-温度 ( $I_F = 30A$ )

Spectral Characteristics



Far Field Pattern (NFP)



Near Field Pattern (NFP)

