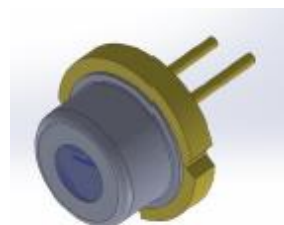


## 905nm 225W Pulsed Laser Diodes

### Model: OPT905TO225-R



#### Features

- 5 stack PLD
- Laser wavelength: 905 nm
- Peak output power:  $\geq 225$  W
- Laser aperture (FWHM) size:  $240 \mu\text{m} \times 19 \mu\text{m}$
- Laser aperture (enclosed 95%E) size :  $300 \mu\text{m}$
- Low wavelength temperature coefficient

#### 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	5	7	8	nm
Wavelength temperature coefficient		0.065	0.09	nm/ $^\circ\text{C}$
Beam spread (50% peak intensity)				
Parallel to junction plane //	9	10	11	Degrees
Perpendicular to junction plane $\perp$	22	23	24	Degrees

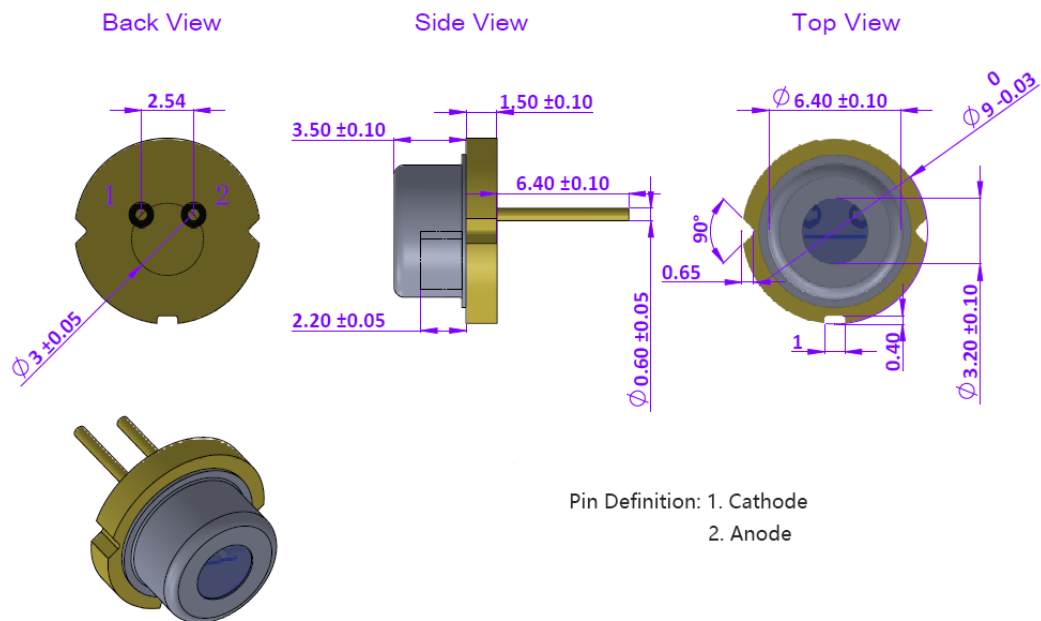
#### Optical Characteristics at $t_{RT} = 25^\circ\text{C}$ , $t_w = 100$ ns, $D = 0.01\%$ , $I_F = 20$ A

Parameter		Units
Number of elements	$1 \times 3$	
Peak output power (typ.)	225	W
Emitting area	$240 \times 19$	$\mu\text{m}$
Threshold, $I_{th}$ typ.	800	mA
Forward voltage at $I_F$	30	V

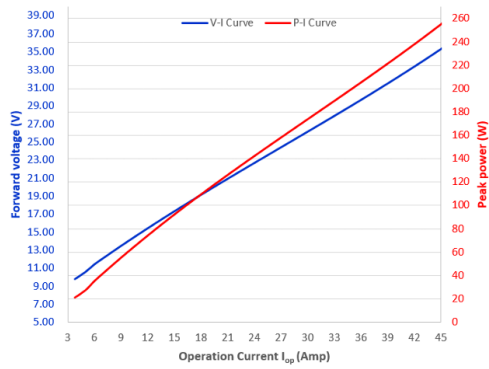
### Absolute Maximum Ratings

Maximum ratings	Limiting values
Max. current	45A
Peak reverse voltage	20V
Pulse duration	100ns
Duty factor	0.1%
Temperature	
- Storage	-40°C to +105°C
- Operating	-40°C to +85°C
Lead soldering	
- 1 0 seconds max at	260°C

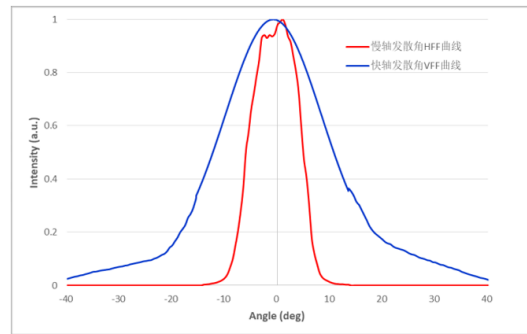
### Package Drawings



## Power-Voltage-Current Characteristics



## Far Field Pattern Characteristics



## Spectral Characteristics

