

1550nm 50W Pulsed Laser Diodes

Model: OPT1550TO50-R



Features

- 3 stack PLD
- Laser wavelength: 1550 nm
- Emitting area $190\mu\text{m} \times 10\mu\text{m}$
- Peak output power: ≥ 50 w

Applications

- Range finding
- Laser radar
- Laser ranging
- Safety monitoring
- Scientific research test

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

	Min.	Typ.	Max.	Units
Wavelength of peak radiant intensity λ m	1530	1550	1570	nm
Spectral bandwidth $\Delta\lambda$ at 50% intensity points		15		nm
Wavelength temperature coefficient		0.55		nm/ $^{\circ}\text{C}$
Beam spread (50% peak intensity)				
Parallel to junction plane //		10		Degrees
Perpendicular to junction plane \perp		8		Degrees

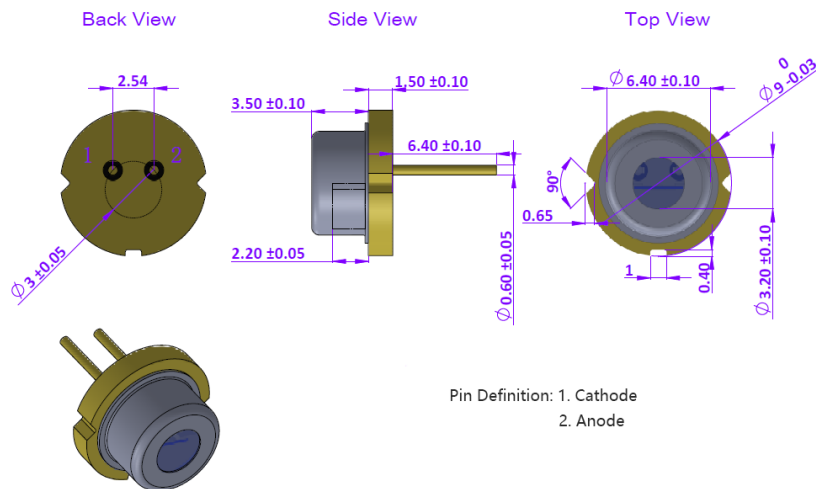
Optical Characteristics at $t_{RT}=25\text{ }^{\circ}\text{C}$, $t_w=200\text{ ns}$, $D=0.1\%$, $I_F=50\text{ A}$

Parameter		Units
Number of elements	1×3	
Peak output power (typ.)	50	W
Emitting area	190×10	μm
Threshold, I_{th} typ.	1000	mA
Forward voltage at I_F	40	V

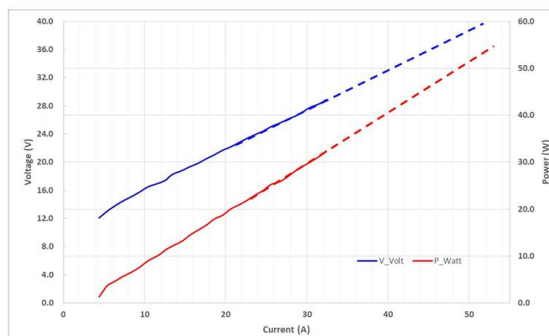
Absolute Maximum Ratings

Maximum ratings	Limiting values
Max. current	55A
Peak reverse voltage	40V
Pulse duration	200ns
Duty factor	0.1%
Temperature	
- Storage	-40°C to +850°C
- Operating	-40°C to +75°C
Lead soldering	
- 10 seconds max at	260°C

Package Drawings



Power-Voltage-Current Characteristics



Far Field Pattern Characteristics

