

1550nm 15W Pulsed Laser Diodes

Model: OPT1550TO15-M



Features

- Low cost package
- High power
- Emitting area $90\mu\text{m} \times 1\mu\text{m}$
- High reliability

Applications

- Range finding
- Laser radar
- Laser sensing

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

	Min.	Typ.	Max.	Units
Wavelength of peak radiant intensity λ_m	1535	1550	1565	nm
Spectral bandwidth $\Delta\lambda$ at 50% intensity points			25	nm
Wavelength temperature coefficient		0.6		nm/ $^{\circ}\text{C}$
Beam spread (50% peak intensity)				
Parallel to junction plane //		12		Degrees
Perpendicular to junction plane \perp		10		Degrees

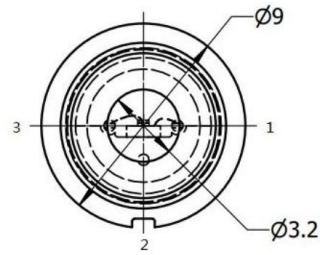
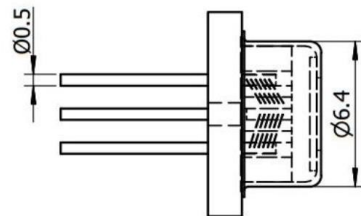
Optical Characteristics at $t_{RT} = 25^{\circ}\text{C}$, $t_w = 100\text{ ns}$, $D = 0.05\%$, $I_F = 30\text{ A}$

Parameter		Units
Number of elements	1×1	
Peak output power (typ.)	15	W
Emitting area	90×1	μm
Threshold, I_{th} typ.	800	mA
Forward voltage at I_F	30	V

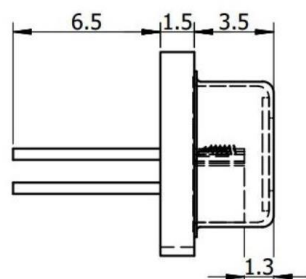
Absolute Maximum Ratings

Maximum ratings	Limiting values
Max. current	30A
Peak reverse voltage	30V
Pulse duration	100ns
Duty factor	0.05%
Temperature	
- Storage	-40°C to +850°C
- Operating	-40°C to +70°C
Lead soldering	
- 10 seconds max at	260°C

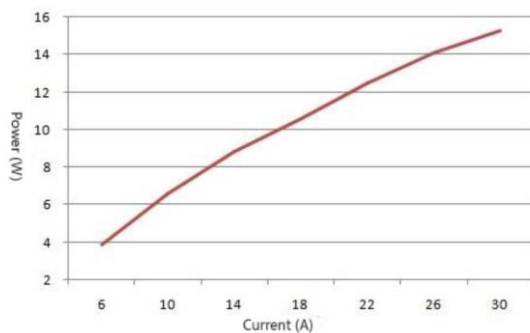
Package Drawings



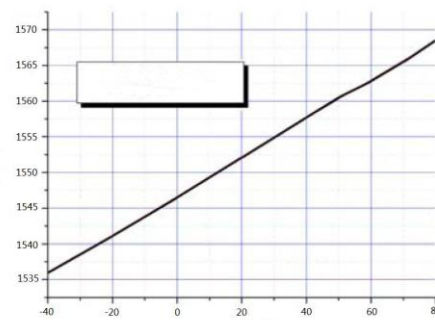
Pin definition: 1. Cathode
2. NC
3. Anode



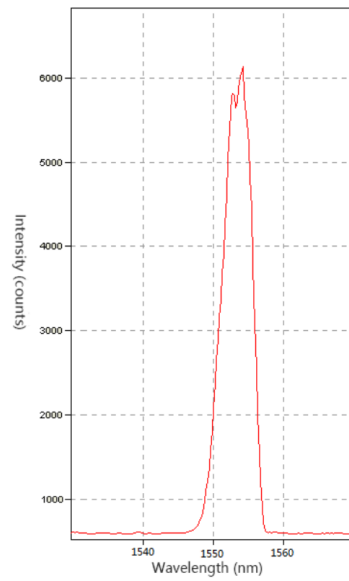
Power vs. Current



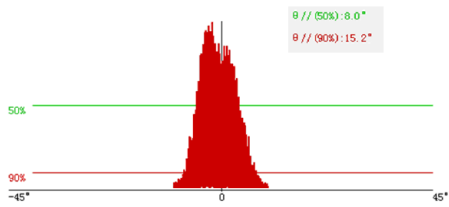
Wavelength vs. Temperature



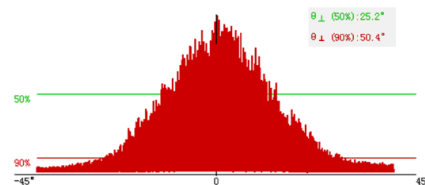
Curve of spectrum



Parallel to junction plane //



Perpendicular to junction plane \perp



Near-field light spots

