

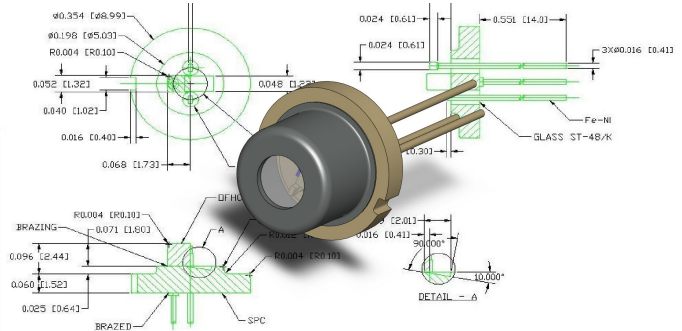
HIGH POWER PULSED LASER DIODES

SERIES · 15XX nm

**APPLIED
OPTRONICS**
LASER DIODES

FEATURES:

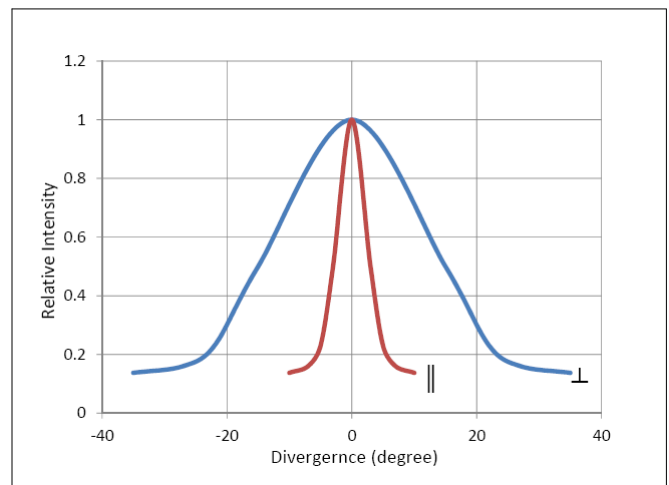
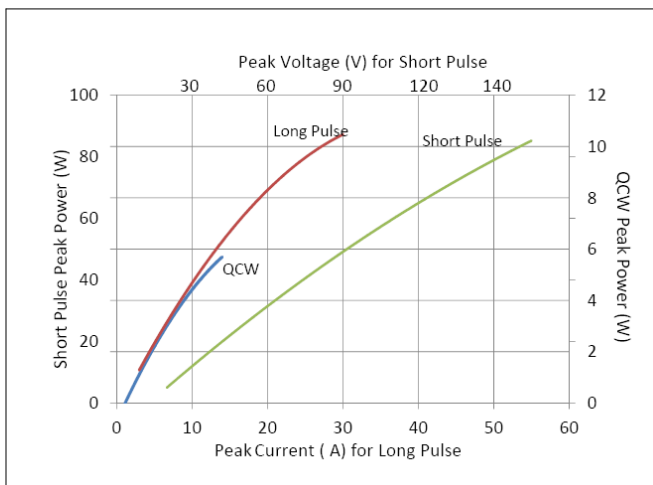
- Peak Power (short pulse) up to 80 Watts
- InGaAsP high reliability design
- High power conversion efficiency
- Excellent temperature stability
- Hermetic package
- Collimator lens and stacks options
- Wide operation conditions pulse to CW



TYPICAL CHARACTERISTICS AT CASE $T_{RT} = 20\text{ }^{\circ}\text{C}$

	Units	Min	Typical	Max
Mean Wavelength (other Wavelengths are available) λ	nm	1510	1550	1580
Spectral width $\Delta\lambda$ (FWHM)	nm		25	
Wavelength shift with temperature $\Delta\lambda/\Delta T$	nm/ $^{\circ}\text{C}$		0.4	
Beam divergence (FWHM) - \parallel to junction	Degrees		12	
Beam divergence (FWHM) - \perp to junction	Degrees		45	
Emitting area	micron		100 x 1	
Threshold Current	A	0.7	0.9	1.1
Maximum Average Power Output	W		0.7	

All data measured beginning of life at 20°C

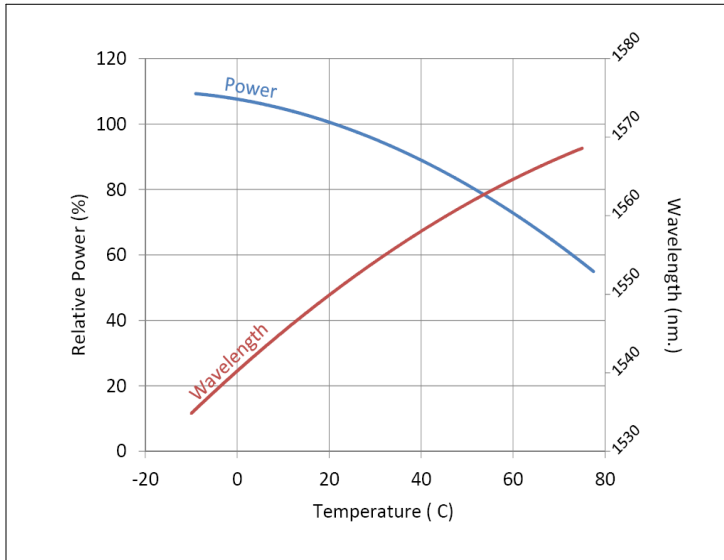


Proudly made in the USA



MAXIMUM RATING

	Units	Min	Typical	Max
Peak reverse voltage	V			2
Storage Case Temperature	Degrees	-55 °		85 °
Operating Case Temperature	Degrees	-45 °		50 °
Lead soldering		5 seconds max at 200 °C		



APPLICATIONS:

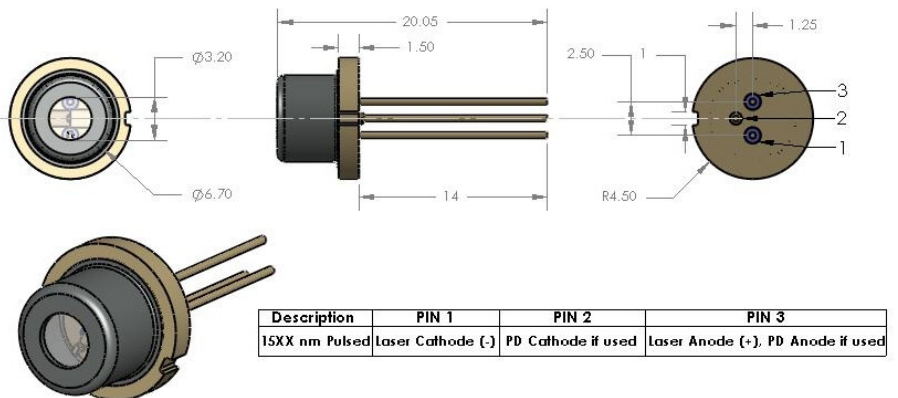
- Eye safe range finding
- Surveying equipment
- Target designation
- Laser Radar
- Defensive countermeasures

CUSTOMIZATION:

- FAC Collimation
- Multi-laser Stacking
- Back Power monitor
- Custom active stripe width
- Other TO packages available
- Fiber pigtailed version available

Notes on reliability and overdrive

These devices have proven MTTF beyond 1000 hours while being operated continuously at designed operating conditions. These devices may be substantially overdriven in short pulse operations. However it is important to respect maximum drive current and maximum average power output. Average life time overdrive conditions have not been verified, although should be acceptable for applications where the device operation time is limited (range finder, target identifier, etc). The devices must be adequately cooled, specifically in applications where a device operates continuously or in long pulses. High temperature operation and overheating of the devices may significantly reduce performance and MTTF.



Safety:
Caution: Laser light emitted from any diode lasers may be harmful to the human eye. Avoid looking directly into the diode laser aperture while operating the device.

ESD Caution:
Handle diode lasers with extreme care in order to prevent electrostatic discharge. Please follow all ESD precautions while handling devices.



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