



TO-56 Packaged Laser Diode

High Power Multi-Mode SemiNex Lasers
 Up to 35 Watts of Pulsed Power
 1550 nm
 Custom Wavelengths Available

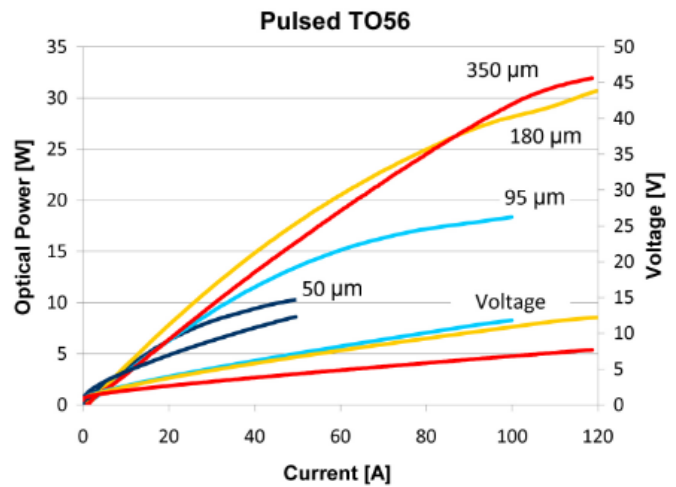
Applications

- OEM Medical
- Professional Medical
- LiDAR
- Military / Aerospace
- Illumination

Features

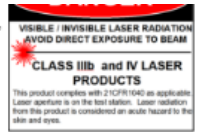
- Cost effective
- High Output Power
- High Dynamic Range
- High Efficiency
- Standard Low Cost Package

SemiNex delivers the highest available power at infrared wavelengths between 13xx and 17xx nm. When necessary we will further optimize the design of our InP laser chips to meet our customers' specific optical and electrical performance needs. Diodes, bars and packages are tested to meet customer and market performance demands. Typical results and packaging options are shown. Contact SemiNex for additional details or to discuss your specific requirements.

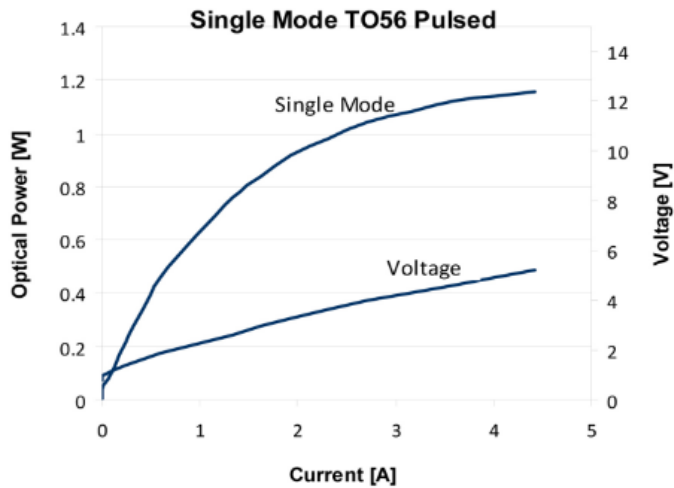
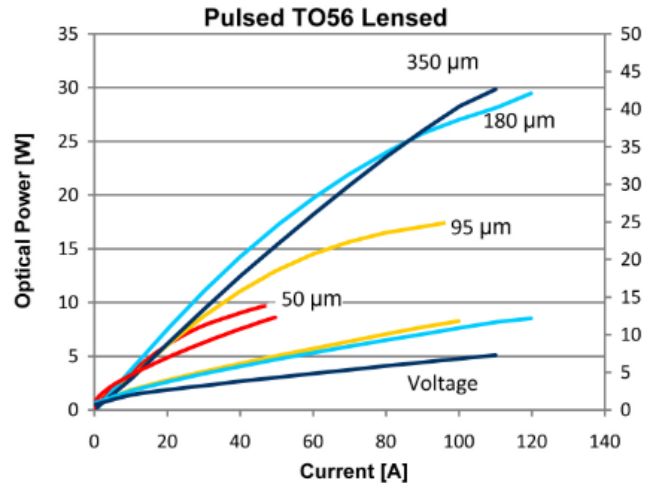
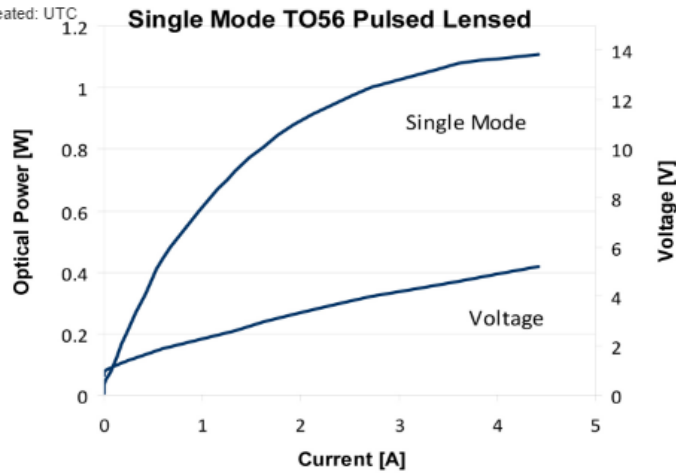


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Date Created: UTC

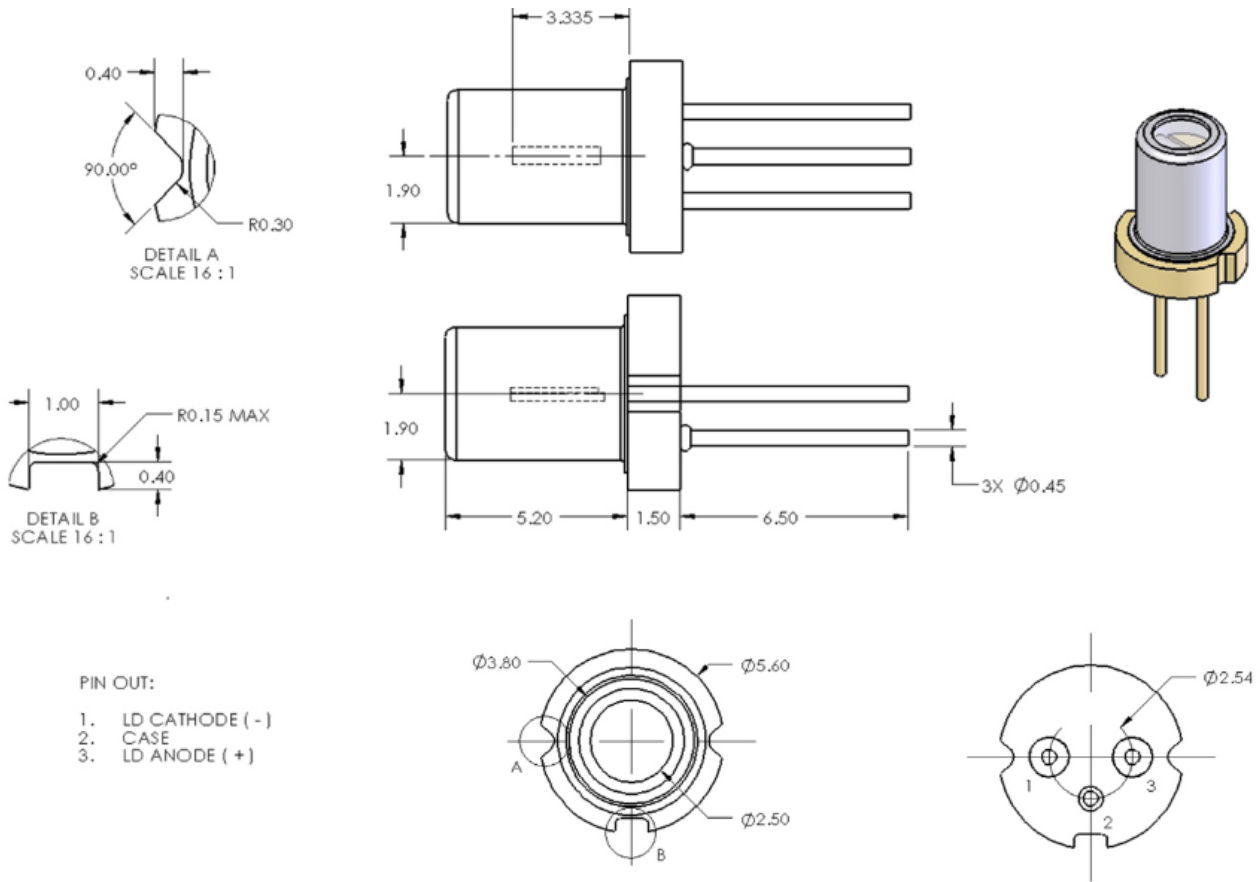


1550 Pulsed TO56



	Symbol	TO56-105-138	TO56-101-138	TO56-102-138	TO56-103-138	TO56-104-138	Units
Optical							
Output Power (CW)*	P _s	0.8	9.0	14.0	24.0	25.0	watts
Cavity Length (typ.)	CL	2500	2500	2500	2500	2500	μm
Emitter Width	W	4	50	95	180	350	μm
Emitter Height	H	1	1	1	1	1	μm
Operating Current	I _{op}	2	35	50	80	100	A
Operating Voltage	V _{op}	3.5	8.5	6.2	9.5	9	V
Threshold Current	I _{th}	0.05	0.5	0.5	2	3.8	A
Specifications							
Wavelength	λ _c	1550	1550	1550	1580	1550	nm (±20)
Spectral Width	Δλ	15	15	15	15	15	nm 3dB
Temperature Coeff.	Δλ/ΔT	0.55	0.55	0.55	0.55	0.55	nm/C
Fast Axis Div.	Θ _{perp}	28	28	28	28	28	deg FWHM
Slow Axis Div.	Θ _{parallel}	14	14	14	14	14	deg FWHM
Pulse Width	PW	150	150	150	150	150	ns
Duty Cycle	DC	0.1	0.1	0.1	0.1	0.1	%
Mechanical							
Weight		0.5	0.5	0.5	0.5	0.5	g
Operating Temp.		10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	°C
Storage Temp.		-20 to 80	-20 to 80	-20 to 80	-20 to 80	-20 to 80	°C

Specified values are rated at a constant heat sink temperature of 20°C
*Pulsed Power

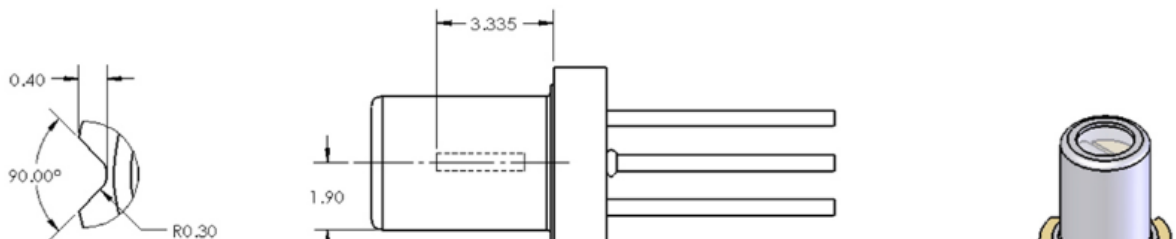


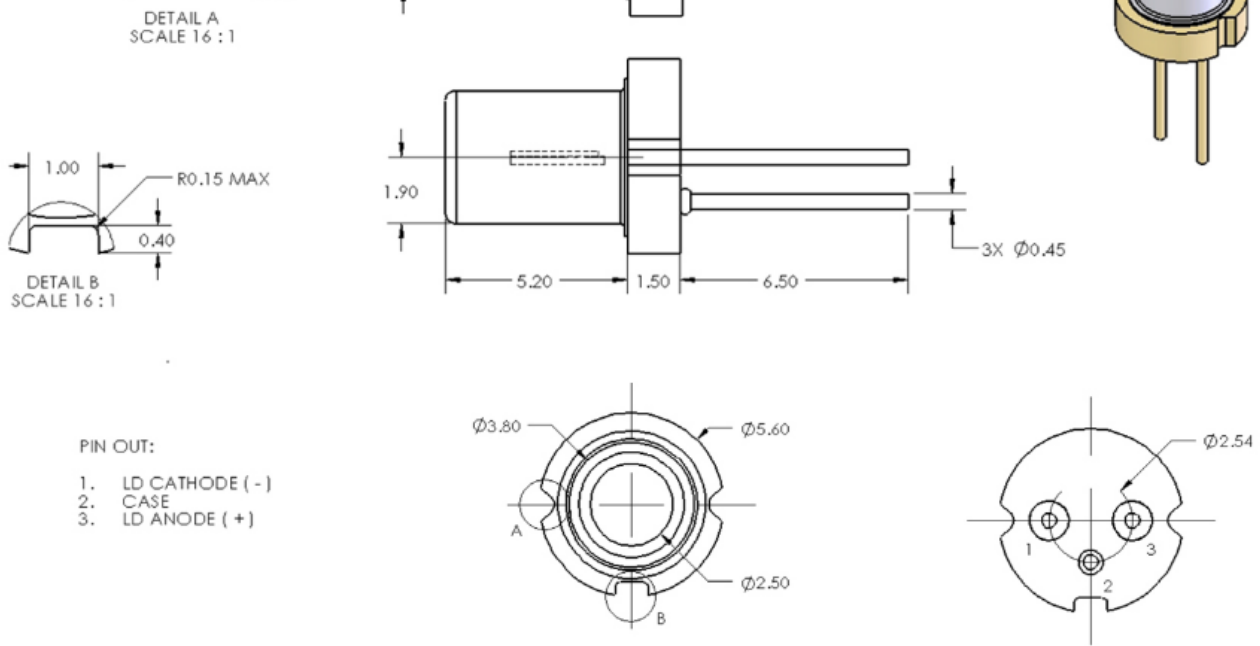
1550 Pulsed TO56 with lens to collimate fast axis



	Symbol	TO56-105-116	TO56-101-116	TO56-102-116	TO56-103-116	TO56-104-116	Units
Optical							
Output Power (CW)*	P _c	0.8	9.0	14.0	24.0	25.0	watts
Cavity Length (typ.)	CL	2500	2500	2500	2500	2500	µm
Emitter Width	W	4	50	95	180	350	µm
Emitter Height	H	1	1	1	1	1	µm
Operating Current	I _{op}	2	35	50	80	100	A
Operating Voltage	V _{op}	3.5	8.5	6.2	9.5	9	V
Threshold Current	I _{th}	0.05	0.5	0.5	2	3.8	A
Specifications							
Wavelength	λ _c	1565	1550	1550	1550	1550	nm (±20)
Spectral Width	Δλ	15	15	15	15	15	nm 3dB
Temperature Coeff.	Δλ/ΔT	0.55	0.55	0.55	0.55	0.55	nm/C
Fast Axis Div.	Θ _{perp}	0.3	0.3	0.3	0.3	0.3	deg FWHM
Slow Axis Div.	Θ _{parallel}	14	14	14	14	14	deg FWHM
Pulse Width	PW	150	150	150	150	0	ns
Duty Cycle	DC	0.1	0.1	0.1	0.1	100	%
Mechanical							
Weight		0.5	0.5	0.5	0.5	0.5	g
Operating Temp.		10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	°C
Storage Temp.		-20 to 80	-20 to 80	-20 to 80	-20 to 80	-20 to 80	°C

Specified values are rated at a constant heat sink temperature of 20°C.
 *Pulsed Power



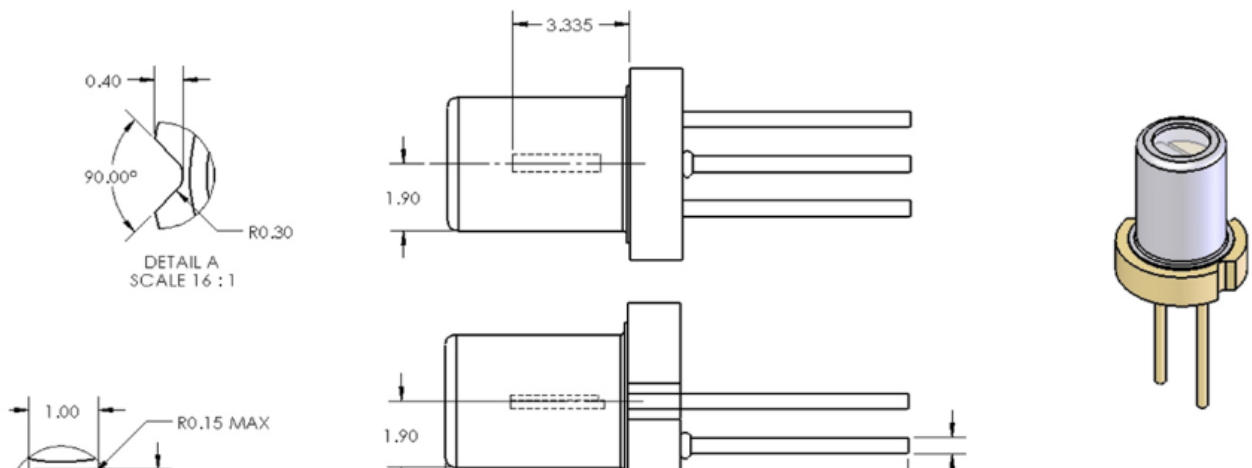


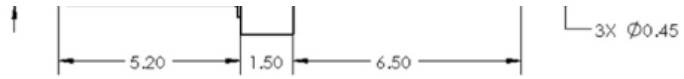
1550 Pulsed TO56 with lens to match fast and slow axis



	Symbol	TO56-105-126	TO56-101-126	TO56-102-126	TO56-103-126	TO56-104-126	Units
Optical							
Output Power (CW)*	P _c	0.8	9.0	14.0	24.0	25.0	watts
Cavity Length (typ.)	CL	2500	2500	2500	2500	2500	µm
Emitter Width	W	4	50	95	180	350	µm
Emitter Height	H	1	1	1	1	1	µm
Operating Current	I _{op}	2	35	50	80	100	A
Operating Voltage	V _{op}	3.5	8.5	6.2	9.5	9	V
Threshold Current	I _{th}	0.05	0.5	0.5	2	3.8	A
Specifications							
Wavelength	λ _c	1565	1550	1550	1550	1550	nm (±20)
Spectral Width	Δλ	15	15	15	15	15	nm 3dB
Temperature Coeff.	Δλ/ΔT	0.55	0.55	0.55	0.55	0.55	nm/C
Fast Axis Div.	Θ _{perp}	14	14	14	14	14	deg FWHM
Slow Axis Div.	Θ _{parallel}	14	14	14	14	14	deg FWHM
Pulse Width	PW	150	150	150	150	150	ns
Duty Cycle	DC	0.1	0.1	0.1	0.1	0.1	%
Mechanical							
Weight		0.5	0.5	0.5	0.5	0.5	g
Operating Temp.		10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	°C
Storage Temp.		-20 to 80	-20 to 80	-20 to 80	-20 to 80	-20 to 80	°C

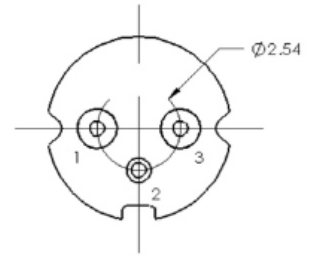
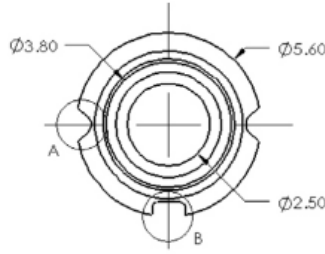
Specified values are rated at a constant heat sink temperature of 20°C.
*Pulsed Power





PIN OUT:

1. LD CATHODE (-)
2. CASE
3. LD ANODE (+)



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