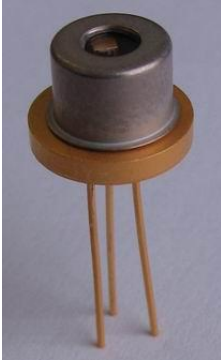


LD-1064-TO-400 High Power Diode Laser in 9mm TO-can – 400mW @ 1064nm	
	<p>Features:</p> <ul style="list-style-type: none"> • CW or pulse operation, 0.5ns rise time • Proprietary mirror coating technology enabling long life-time • 100 hours burn-in test passed • Optional: deep AR coating (0.1% reflectivity) for external cavity operation • Optional: monitor photodiode
<p>Specification for engineering samples</p>	<p>DATE: 25th Mar. 2009</p>

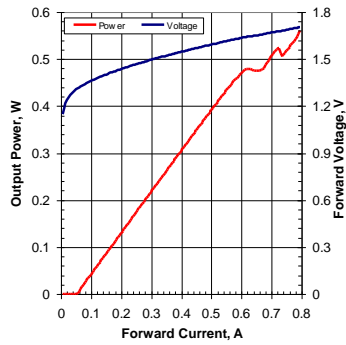
SPECIFICATIONS						
Parameter	Test conditions	Symbol	Min.	Typ.	Max.	Unit
Operating optical power	CW I _{op} , 25°C	P _{op}	400			mW
Operating current	CW, 25°C	I _{op}		520	600	mA
Threshold current	CW, 25°C	I _{th}		50	90	mA
Forward voltage	CW I _{op} , 25°C	V _{op}		1.65	1.75	V
Central wavelength	CW I _{op} , 25°C	λ	1054	1064	1074	nm
Spectral width (FWHM)	CW I _{op} , 25°C	Δλ		1	4	nm
Spectral shift with temperature	10-60°C range	λ _{T shift}	0.3	0.35	0.4	nm/°C
Spectral shift with current	CW, 25°C	λ _{I shift}		7		pm/mA
Front facet reflectivity	1050-1080nm range			3		%
Polarization extinction ratio TE/TM	CW I _{op} , 25°C		20			dB
Divergence parallel to p-n junction (FWHM)	CW I _{op} , 25°C	Θ	4	5	8	deg.
Divergence perpendicular to p-n junction (FWHM)	CW I _{op} , 25°C	Θ _⊥	31	33	35	deg.
Power drop during 100 hours burn-in test	CW P _{op} =400mW, 60°C				1	%

ABSOLUTE MAXIMUM RATINGS			
Parameter	Min.	Max.	Unit
Forward current (1s maximum)		800	mA
Reverse voltage		2	V
Lead soldering temperature		250 (5 sec.)	°C
Storage temperature range (in original sealed pack)	-40	85	°C
Operating temperature range	0	60	°C

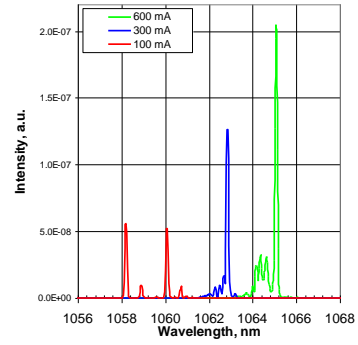
TYPICAL PERFORMANCE

CW, at 25°C heatsink temperature

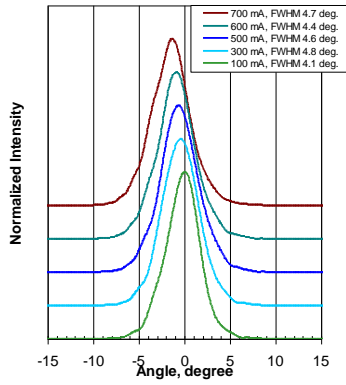
Light-Current-Voltage Characteristics



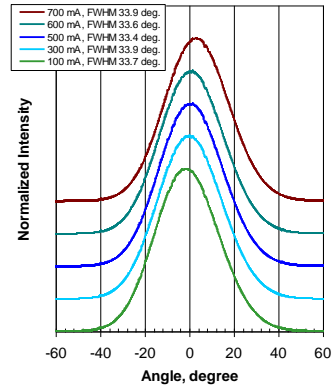
Spectra Characteristics



CW Slow Axis Far Field

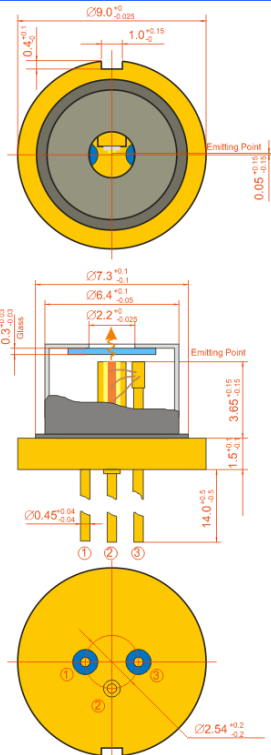


CW Fast Axis Far Field

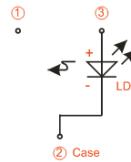


DIMENSIONS

All sizes in mm



Pins connection:

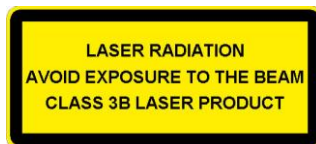


SAFETY AND OPERATING CONSIDERATIONS

The laser light emitted from this device is invisible and will be harmful to the human eye. Avoid looking directly into the output window or into the collimated beam along its optical axis when the device is in operation. Proper laser safety eyewear must be worn during operation.

Operating the Laser Diode outside of its maximum ratings may cause device failure or a safety hazard. Power supplies used with the component must be employed such that the maximum peak optical power cannot be exceeded. A proper heatsink for the Laser Diode is required. Exposure to maximum ratings for extended period of time or exposure above one or more max ratings may cause damage or affect the reliability of the device.

ESD PROTECTION – Electrostatic discharge is the primary cause of unexpected Laser Diode failure. Take extreme precaution to prevent ESD. Use wrist straps, grounded work surfaces and rigorous antistatic techniques when handling laser diodes.



NOTE: Innolume product specifications are subject to change without notice.