



Diode Laser Concepts, Inc.

Product Specifications, Line
511322-0005 Rev 1

Date:
Dec. 13, 2018
Status: Released
Sheet 1 of 3

Product Revision History			
Rev.	Author	Description	Date
A	Jon C.	Document Origination	July 13, 2007
1	Shane Nelson	Update to New Format – (Non production revision)	March 23, 2018
1	Shane Nelson	Update Mechanical Specification – (Non production revision)	July 12, 2018
1	David Dutton	Update Mechanical Overall Length Specification, Tolerance on Length for Connector	December 6, 2018

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2	Shane Nelson	Update Mechanical Specification – (Non production revision)	July 12, 2018
3	David Dutton	Update Mechanical Overall Length Specification, Tolerance on Length for Connector	December 6, 2018
4	David Dutton	Update Operating Temperature and Laser Lifetime	December 13, 2018

Req.	Department	Approvals	Date
<input type="checkbox"/>	Engineering		
<input type="checkbox"/>	General Management		



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PRODUCT DESCRIPTION:	
Laser Module; 0.75"; Industrial; 45 Deg. Line; 635nm; LT 1mW; Class 2; Continuous Wave; No Leads; M12 Connector; RoHS	
OPTICAL SPECIFICATIONS (At 25°C)	
Wavelength:	635nm, $\pm 5\text{nm}^1$
Wavelength Stability:	$0.25\text{nm} / ^\circ\text{C}^2$
Power Output:	2.4mW , $\pm 0.5\text{mW}^3$
Power Output Stability:	$< 1\%$ Fluctuations over 15 minutes ⁴
Power Output vs. Temperature:	$< 1.0\% / ^\circ\text{C}^2$
Beam Propagation:	Collimated Line
Fan Angle:	45°^2
Line Thickness:	$2\text{mm}^{2,5}$ at 1m from front of module
	$3\text{mm}^{2,5}$ at 4m from front of module
	$6\text{mm}^{2,5}$ at 8m from front of module
Pointing Accuracy:	$\leq 2\text{mrad}^6$
Window:	Sapphire
Emission Indicator:	Red
ELECTRICAL SPECIFICATIONS (At 25°C)	
Operating Voltage:	5VDC, $\pm 0.5\text{VDC}$
Typical Load Current:	60mA^2
Max. Load Current:	75mA^2
Operation Mode:	Continuous Wave Turn on Time: $< 0.1\text{sec}$
Interconnect:	M12 Lumberg Connector
Electronic Protection:	Reverse Polarity Protection Surge Protection Max Static Discharge Immunity: 4kV [contact]

ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature:	-10 to 50°C
Storage Temperature:	-40°C to 85°C
Required Thermal Heat Dissipation:	0.5W
Dust and Water Protection:	IP54 ⁷
RELIABILITY / REGULATORY SPECIFICATIONS (At 25°C)	
Laser Lifetime (CW Mode):	$> 10,000\text{hrs}^1$
Laser Safety Classification:	Class II Laser Product
Certifications:	CE, CDRH, RoHS Compliant
Warranty:	2 Year
TESTING / DATA SHEETS	
Data Sheet Requirements:	None

Notes

¹ Per laser diode manufacturer specification.

² Nominal specification.

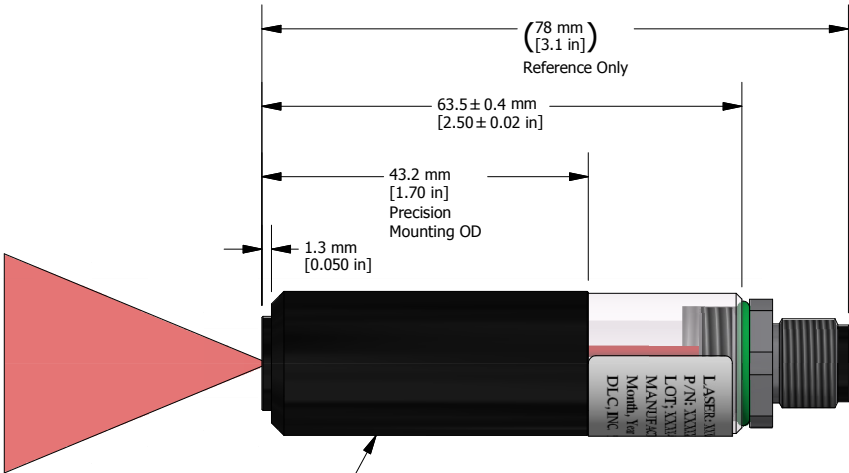
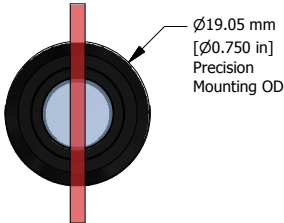
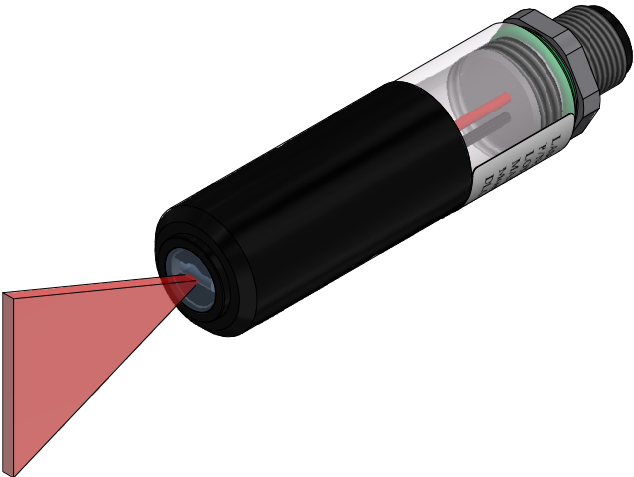
³ Total output power at face.

⁴ After laser warmup period.

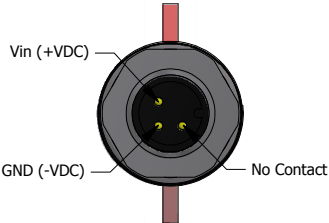
⁵ Measured visually at center of line using standard rule.


⁶ Measured radially from mechanical, cylindrical axis normal to line length.

⁷ Designed to meet.



Hard anodized aluminum housing:
Module must be mounted on
hard anodized surface in application
or warranty is void.



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS. X.X ± 0.2 mm (0.008") X.XX ± 0.10 mm (0.004") X.XXX ± 0.050 mm (0.002") Angular: ± 0.5 Degree	APPROVALS		DATE	 DIODE LASER CONCEPTS, INC. 2027 Commerce Dr Medford, OR 97504 USA
	Drawn By: Shane N.		12/6/2018	
	Approved By: Mike R.		12/6/2018	Part Number: 511322-0005 Rev. 1
	Customer Approval ---			Description: Laser Module; 0.75"; Industrial; 45 Deg. Line; 635nm; LT 1mW; Class 2; Continuous Wave; No Leads; M12 Connector; RoHS

Mouser Electronics

Authorized Distributor

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