

element[®] e18

Fiber-Coupled Semiconductor Laser



90W, 793nm, 105μm

Item Number : 1082076

	Unit	Minimum	Typical	Maximum
Optical Specifications				
CW Output Power (in fiber) ⁴	W	83	90	
Wavelength Centroid	nm	790.0	793.0	796.0
Spectral Width (FWHM)	nm		1.8	4.0
NA within 95% Power Enclosure	-		0.15	
Fiber Core / Clad Diameter	μm		105 / 125	
Fiber NA / Index Type / Cladding Type	-		0.22 NA / Step Index / Single	
Back Reflection Isolation 1850 - 2100nm	dB	15		
Electrical Specifications				
Electrical-to-Optical Efficiency	%		41	
Threshold Current	A		1.1	
Operating Current	A		7.0	7.0
Operating Voltage	V		31.4	32.0
Thermal Specifications				
Operating (Housing) Temperature ³	°C		+30	
Storage Temperature ³	°C	-25		70
Wavelength Temperature Coefficient	nm / °C		0.28	
Wavelength Current Coefficient	nm / A		0.7	
Mechanical Specifications				
Mass	g		510	
Fiber Length	m	1.5	2.0	
Active Fiber Bend Radius	mm	25		
Product Information				
Item Description	-	e18-18-090-0793-3-105-0.22-SI-FPT-2.0-HT		
Fiber Jacketing	-	900 μm Hytel Tubing		
Fiber Termination	-	FPT		
Export Control Classification Number (ECCN)	-	EAR99		

Notes

- 1 Product image not necessarily representative of exact appearance.
- 2 Production specifications shown are for beginning of life performance at the typical operating temperature. End of life operating current (Iop) is 110% beginning of life Iop.
- 3 A non-condensing environment with relative humidity between 5 - 85% is required for operation and storage.
- 4 The CW Output Power (in-fiber) specified is 3.5% higher than the as-measured values to account for Fresnel loss that wouldn't be present in the intended spliced use condition.

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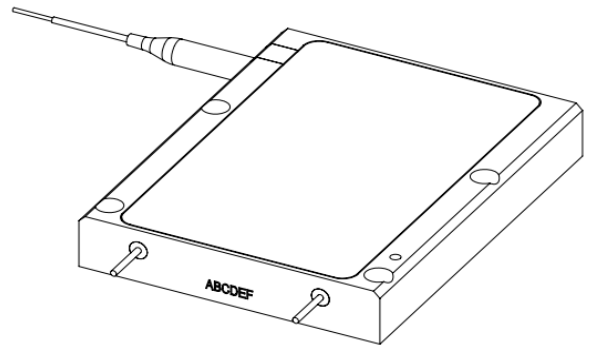
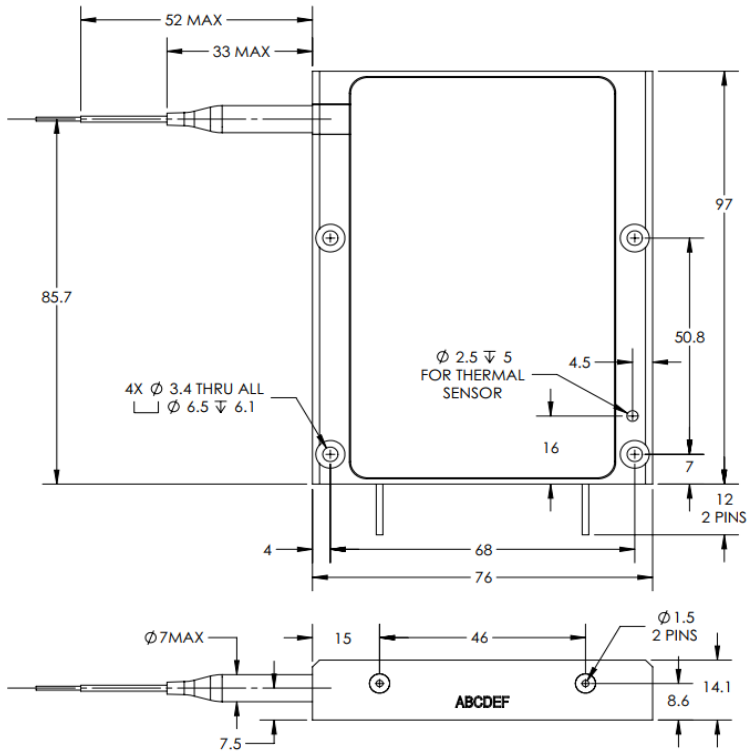


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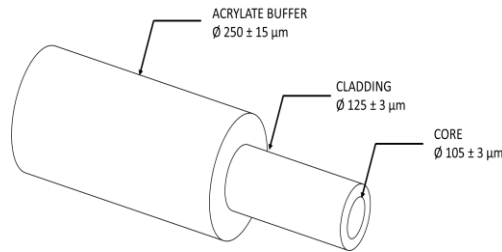
900 μm Hytel Tubing Bare fiber pigtail

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Mechanical Drawings



ALL DIMENSIONS IN mm WITH ± 0.25 mm TOLERANCE.



BARE FIBER DRAWING

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This product is not certified in accordance with IEC 60825-1 or 21CFR1040.10/ 21CFR1040.11 and is solely intended to be integrated into a laser product certified by the Purchaser. The Purchaser acknowledges that their product (incorporating nLIGHT laser product) must comply with the applicable regulations before it can be sold.



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