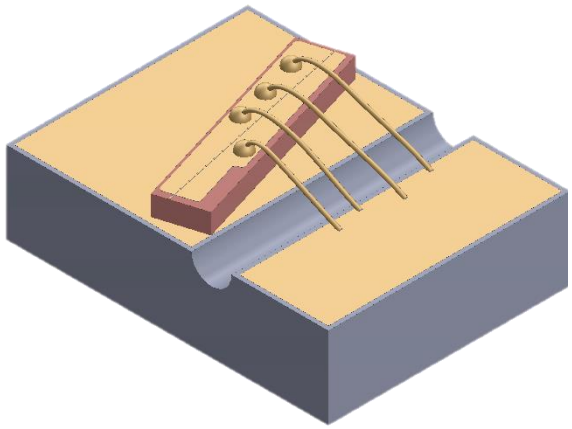
Specification Sheet | **850 nm Series**

Double Angle Facet (DAF) Gain Chip

Description

The 850 nm DAF Series of high-performance edge-emitting gain chip are based on Photodigm's advanced monolithic Gallium Arsenide (GaAs) based laser technology. It provides a single spatial mode beam, a unique anti-reflective coating pair (<3% AR both sides) and has passivated facets for reliability. The 850 nm Series DAF gain chip devices have an angled waveguide at the output facet to minimize internal reflections and are frequently used in applications to recover isolator and fiber insertion losses.



850 nm DAF Characteristics

	Chip Architecture
Parameters[1]	**DAF**
Wavelength, Nominal (nm)	850 ± 5
Output Power, Max (mW)[2]	100
Operating Current, Max (CW & Pulsed) (mA)	250
Optical Bandwidth at 3 dB, Nominal (nm)	18
Single-Pass Unsaturated Gain, Nominal (dB)	20

1. Characteristics at T_C = 25 °C unless otherwise specified. Operating outside of these parameters voids warranty
2. Power output is highly dependent on customer configuration

Specifications

Parameter	Unit	Min	Typical	Max
Storage Temperature	°C	0	-	70
Operating Temperature at DAF chip	°C	5	-	45
DAF Series Resistance	Ω	-	1.1	-
DAF Forward Voltage @ LIV Current	V	-	2	-
Beam Divergence @ FWHM ($\theta_{\parallel}$ x $\theta_{\perp}$)	º	-	6 x 28	8 x 32
Polarization Extinction Ratio	dB	-	-10	-
DAF Preferred Polarization	TE			
Mode Structure	Fundamental Mode			
Temperature Tuning Rate	nm/°C	-	0.3	-
DAF Reverse Voltage	V	-	-	0

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9.28.2023
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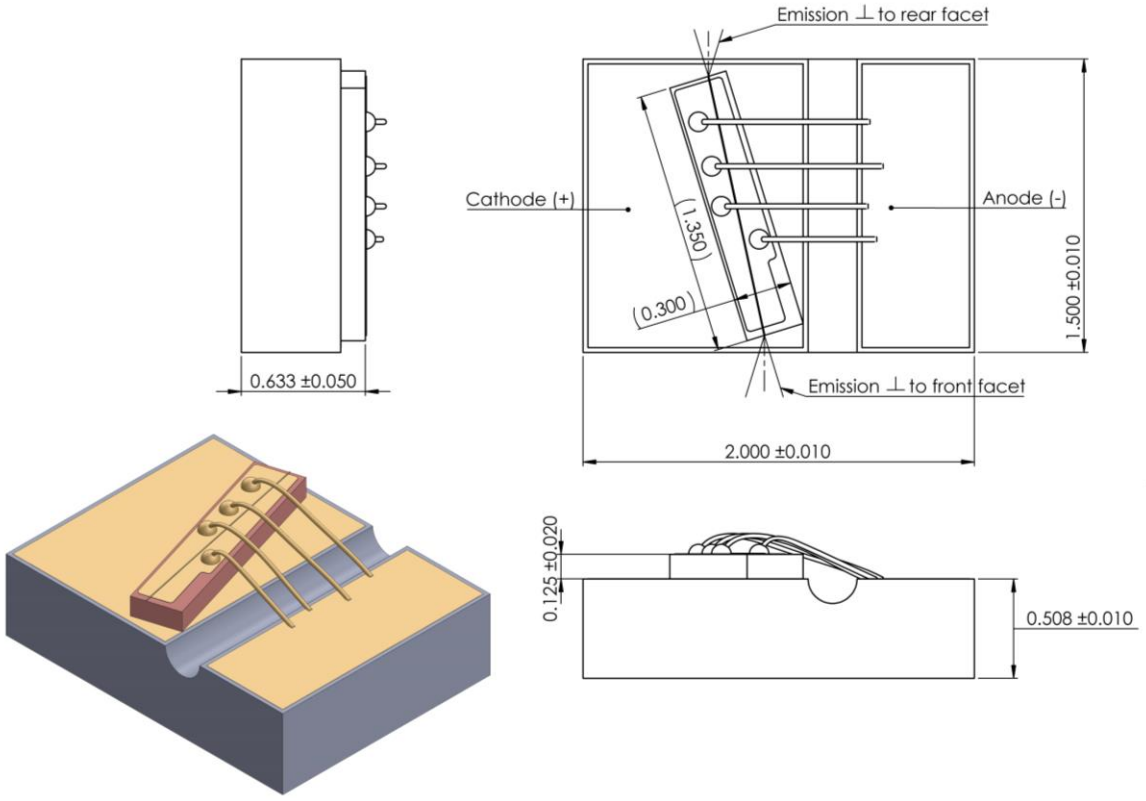
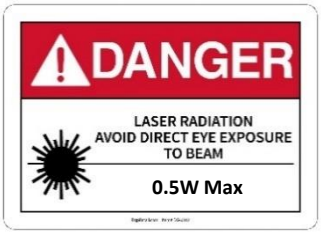
Normal Emission Drawing:

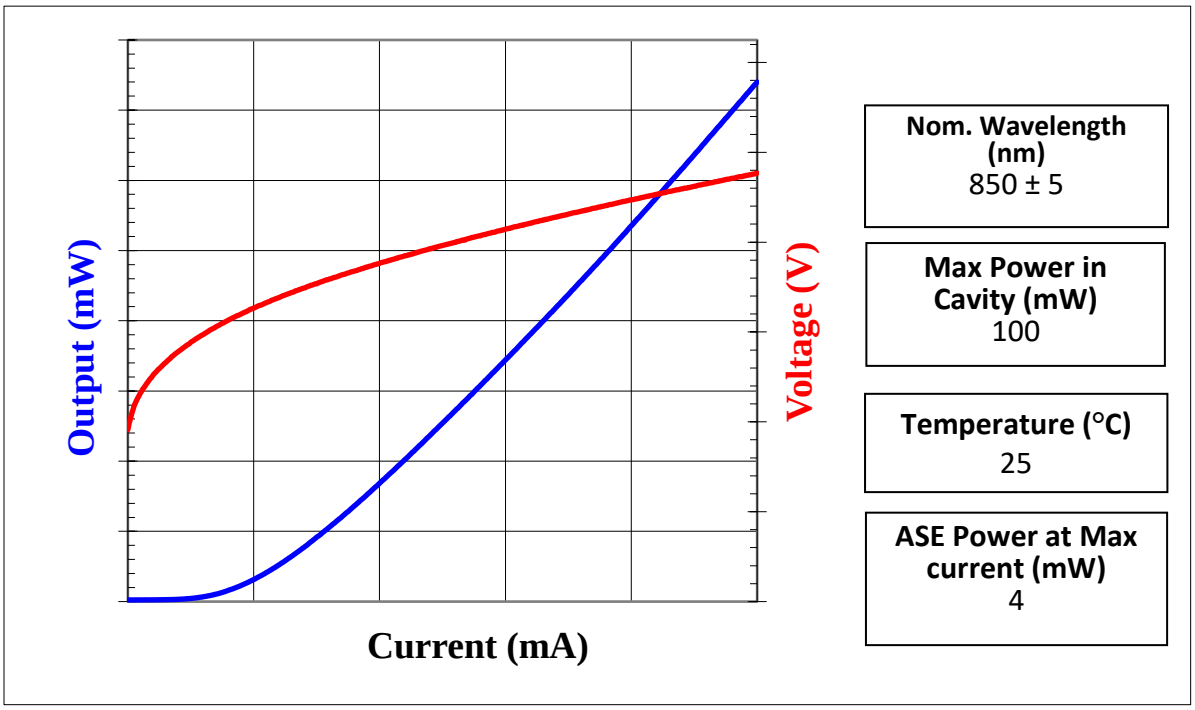


Handling Precautions

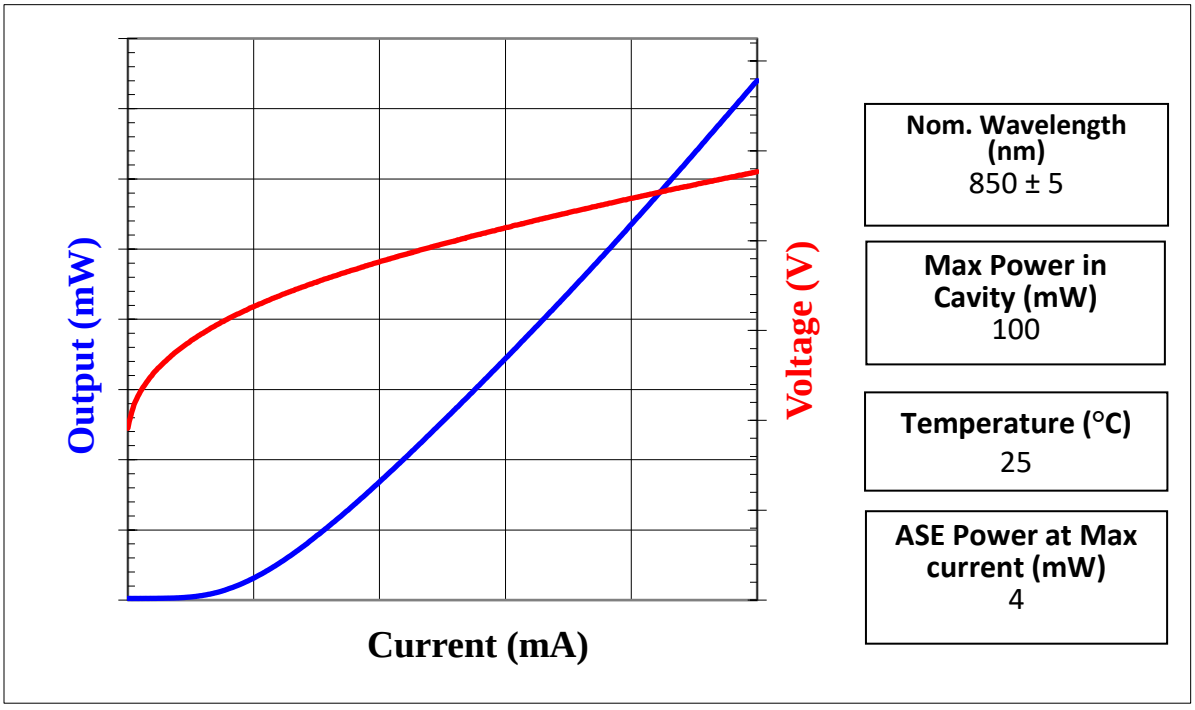
These devices are sensitive to ESD. When handling the module, grounded work area and wrist strap must be used. Always store in an antistatic container with all leads shorted together.



LIV Characteristics with no seed by Current, Front Facet



LIV Characteristics with no seed by Current, Rear Facet



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