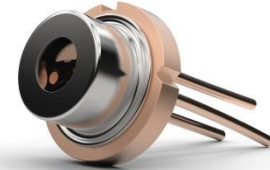


PH850SAF1009MM 850nm Single Angle Facet Gain Chip in 9mm Package

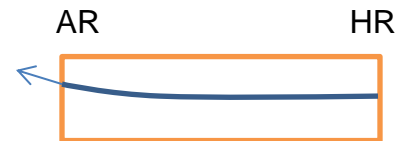
Technology

- Ridge Waveguide Technology
- AlGaAs QW Active Layer
- Epi designed for High Reliability
- Single Angle Facet **SAF**



Features

- Designed to minimize facet reflections and coupled cavity effects in ECDL applications
- Hermetic Package
- Broad Spectral Emission
- Ultra High Vacuum Passivation



Description

The PH850SAF1009MM is a 850nm single angled facet gain chip in a 9mm diameter windowed package. Window is AR coated for optimum light transmission. Typical output power is 100mW when coupled. It provides a diffraction limited, single lateral mode beam based on Photodigm's advanced ridge waveguide technology. Facets are passivated for high reliability. Applications include external cavity lasers.

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min	Max
Storage Temperature	T_{STG}	°C	0	80
Operating Temperature	T_{OP}	°C	5.0	70
SAF Forward Current	I_F	mA	-	250
Optical Output Power	P_o	mW	-	120
SAF Reverse Voltage	V_R	V	-	0.0
Lead Soldering Temperature, 10 sec. Max.	-	°C	-	260

CW Characteristics at $T_C = 25^\circ\text{C}$, 150mA unless otherwise specified

Parameter	Symbol	Unit	Min	Typ	Max
Center Wavelength	λ_c	nm	840	845	850
λ_c Shift Versus Temperature	$d\lambda_c/dT$	nm/°C	-	0.3	-
Optical 3dB Bandwidth	$\Delta\lambda_{3dB}$	nm	-	17	-
Optical Output Power @ 200mA	P_o	mW	-	100	-
SAF Forward Voltage	V_F	V	-	2.0	2.5
Polarization Dependent Gain (TE/TM)	PDG	dB	-	7	-
Beam Divergence @ FWHM	$\theta_{ } \times \theta_{\perp}$	°	-	6 X 26	8 X 28
SAF Preferred Polarization				TE	
Mode Structure			Fundamental Mode		

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.

Package Outline

Pin 2 (case)..... Cathode
 Pin 3..... NC
 Pin 1..... Anode

