

972-235-7584



GET A QUOTE

PH808DBR Mercury Series

PH808DBR Mercury™ Series High-Power Single-Frequency Laser Diode

808 nm Laser Diode in
Mercury™ TOSA Package

Technology

- DBR Single-Frequency Laser Chip
- AlGaAs QW Active Layer

Features

- Robust, monolithic die design
- Pulsed operation for spectral stability at short pulse lengths

- Package contains TEC cooling with precise thermistor control
- High Slope Efficiency
- Hermetic package for high reliability

Description

The 808nm Mercury™ series of high-power edge-emitting lasers are based on Photodigm's advanced single-frequency laser technology. It provides a diffraction limited, single lateral and longitudinal mode beam in a compact hermetic package. Facets are passivated for high-power reliability. Applications include mobile spectroscopy instrumentation where durability and reliability are essential.

Absolute Maximum Rating

Parameter	Symbol	Unit	Min	Max
Storage Temperature	T _{STG}	°C	0	80
Operating Temperature	T _{OP}	°C	5.0	70
CW Laser Forward Current, T=25°C	I _F	mA	-	**
Laser Reverse Voltage	V _R	V	-	0.0
TEC Current	I _{TEC}	A	-1.1	1.1

TEC Voltage	V_{TEC}	V	-3.0	3.0
Thermistor Current	I_{THRM}	mA	-	1.0
Thermistor Voltage	V_{THRM}	V	-	10

**Do not exceed drive current or operating power of supplied LIV

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

Parameter	Symbol	Unit	Min	Typ	Max
Center Wavelength @ 150mA	λ_c	nm	805	807	809
Optical Output Power	P_o	mW	See Power Options Call-out		
Slope Efficiency	η_d	W/A	0.6	0.75	-
Threshold Current	I_{th}	mA	-	50	80
Laser Series Resistance	R_S	Ω	-	2.0	2.5
Laser Forward Voltage @ 150mA	V_F	V	-	2.0	2.5

Thermistor Resistance @ 25°C	R_T	K Ω	-	10	-
Laser Line Width	$\Delta\nu$	MHz	-	1	10
Beam Divergence @ FWHM	$\theta_{ } \times \theta_{\perp}$	°	-	6 X 28	8 X 32
Side Mode Suppression Ratio					

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1155 E. Collins Blvd., Suite 200

Richardson TX 75081

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