

EYP-BAL-0670-00500-1510-FLP03-0006

Revision 0.50

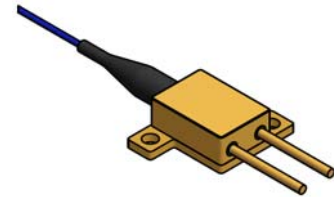
12.09.2017

MULTI MODE LASER DIODES

Broad Area Laser

General Product Information

Product	Application
670 nm Broad Area Laser	Sensing
Flat Pack Package	Metrology
Fiber Pigtail with FC/APC 12° connector	



Absolute Maximum Ratings

Parameter	Symbol	Unit	min	typ	max
Storage Temperature	T_S	° C	-40		85
Operational Temperature at Case	T_C	° C	0		70
Operational Current	I_{op}	A			2
Reverse Voltage	V_R	V			2
Optical Output Power	P_{opt}	W			1

Measurement Conditions / Comments

Stress in Excess of one of the Absolute Maximum Ratings can cause permanent damage to the device

Recommended Operational Conditions

Parameter	Symbol	Unit	min	typ	max
Operational Temperature at Case	T_C	° C	5	25	60
Operational Current	I_{op}	A		1.5	
Optical Output Power	P_{Pulse}	W		0.5	

Measurement Conditions / Comments

Characteristics at $T_{LD} = 25^\circ \text{C}$, BOL

Parameter	Symbol	Unit	min	typ	max
Center Wavelength	λ_c	nm	660	670	680
Spectral Width	$\Delta\lambda$	nm		5	
Temperature Coefficient of Wavelength	$d\lambda / dT$	nm / K		0.3	
Optical Output Power @ $I_{op} = 1.5 \text{ A}$	P_{opt}	W		0.5	
Slope Efficiency	η	W/A		0.7	
Threshold Current	I_{th}	A		0.6	

Measurement Conditions / Comments

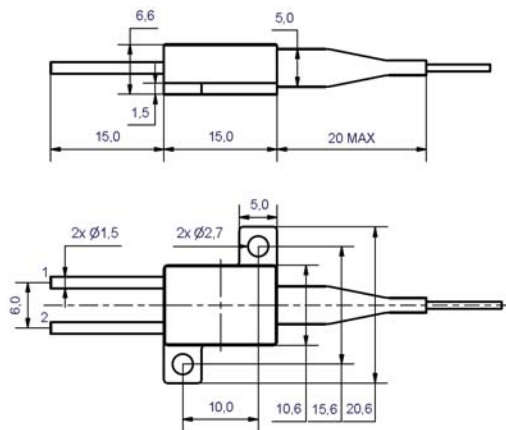
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Package Drawings



AIZ-16-1215-1328

Package Pinout

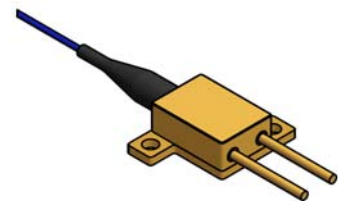
Anode (+)	left pin (isolated from case)
Cathode (-)	right pin (isolated from case)

Fiber Characteristics

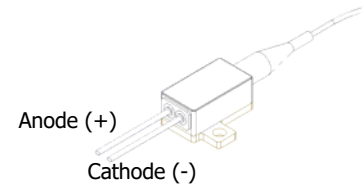
Parameter	Symbol	Unit	min	typ	max
Core diameter	d_{core}	μm		105	
Numerical Aperture	NA			0.22	
Cladding Diameter	$d_{cladding}$	μm		125	
Coating Diameter	$d_{coating}$	μm		250	
Buffer / Tubing	d_{buffer}	μm		900	
Fiber Length	d_{fiber}	mm		tbd	
Fiber Bend Radius	r_{fiber}	mm	40		

Connector

Type
FC/APC 12°



Soldering Process
max. pin temperatur: 260° C
max. soldering time: 10 s



Anode (+)
Cathode (-)



Measurement Conditions / Comments



tight buffer (Hytrel)



Comments

with bend relief



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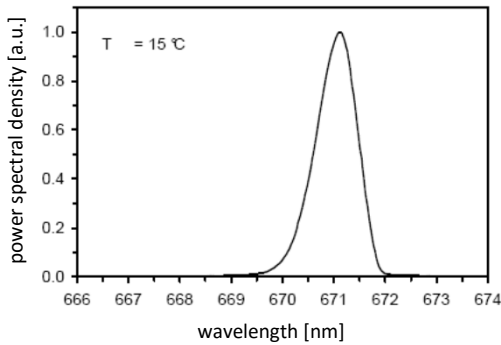
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Typical Measurement Results

Spectrum



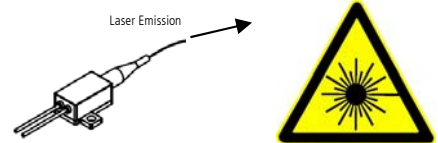
Performance figures, data and any illustrative material provided in this specification are typical and must be specifically confirmed in writing by eagleyard Photonics before they become applicable to any particular order or contract. In accordance with the eagleyard Photonics policy of continuous improvement specifications may change without notice.

Unpacking, Installation and Laser Safety

Unpacking the laser diodes should only be done at electrostatic safe workstations (EPA). Though protection against electro static discharge (ESD) is implemented in the laser package, charges may occur at surfaces. Please store this product in its original package at a dry, clean place until final use. During device installation, ESD protection has to be maintained.

The operating lifetime of laser diodes depends on the operating temperature. Operating the laser on a proper heat sink at moderate temperatures will contribute to a long lifetime of the laser diode.

Each laser diode will come with an individual test protocol verifying the parameters given in this document.



IEC-60825-1

