



LJP Series — 635nm-980nm Prime Laser Diode Modules *Elliptical Beam, Focus Adjustable, Diameter 12mm, 3–6VDC*



Overview

The LJP series from Lasermate offers a compact and cost-effective solution for OEM laser applications. Operating across a wavelength range of 635nm to 980nm, these laser diode modules feature adjustable focus, an elliptical beam, and TTL modulation up to 100kHz. Designed with a good heat sink and rugged 12mm housing, they are ideal for applications such as leveling, measurement, alignment, and positioning, where space-saving and reliable laser performance are essential.

Features

- Wide range of wavelengths from 635nm to 980nm (including 650nm, 670nm, 780nm, 808nm, 850nm, 904nm)
- Different output power levels for all wavelengths
- Good performance and low cost
- Adjustable focus
- Elliptical beam profile
- Good heat sink design
- Automatic Power Control (APC) circuit design
- Miniature, rugged design: Dia. 12mm x L. 29+/-0.5mm
- Wide operating voltage: 3-6VDC

Applications

- Leveling
- Measurement
- Alignment
- Positioning

Product Overview

The following table shows the list of available part numbers, wavelength, optical output power, laser class, operating voltage, operating current, and operating temperature for LJP series laser modules.

Part Number	Wavelength (nm)	Optical output power (mW)	Laser class	Operating voltage (V DC)	Operating Current typical (mA)	Operating temperature (°C)
LJP6351AR-B	635	0.5-0.99	II	3-6	40	-10 to +40
LJP6353AR-B	635	2.1-3	IIIa	3-6	40	-10 to +40
LJP6351AR-A	635	0.5-0.99	II	3-6	40	-10 to +50
LJP6353AR-A	635	2.1-3	IIIa	3-6	40	-10 to +50
LJP6501AR-B	650	0.5-0.99	II	3-6	25	-10 to +40
LJP6503AR-B	650	2.1-3	IIIa	3-6	25	-10 to +40
LJP6501AR-A	650	0.5-0.99	II	3-6	30	-10 to +50
LJP6503AR-A	650	2.1-3	IIIa	3-6	30	-10 to +50
LJP6701AR	670	0.5-0.99	II	3-6	40	-10 to +50
LJP6703AR	670	2.1-3	IIIa	3-6	40	-10 to +50
LJP7803AR	780	2.1-3	IIIb	3-6	30	-10 to +50
LJP8083AR	808	2.1-3	IIIb	3-6	30	-10 to +40
LJP8503AR	850	2.1-3	IIIb	3-6	30	-10 to +50
LJP9043AR	904	2.1-3	IIIb	3-6	30	-10 to +50
LJP9806AR	980	4-6	IIIb	3-6	35	-10 to +40

Specifications of LJP Series Laser Diode Modules

Wavelength (nm)	635	650	670	780	808	850	904	980
Tolerance	+/-10 nm @ 25 °C							
Laser light	Visible Red				Infrared			
Laser class	Class II <1mW, Class IIIa <5mW				Class IIIb			
Diode output power	5-10mW							
Operating current	25-40mA typical							
Operating voltage	3-6 VDC							
Drive circuit	APC with voltage regulator							
Optics	Singlet plastic collimating lens							
Beam divergence	< 0.5 mrad							
Beam size @ 5 m	~4x7 mm							
Beam profile	Elliptical							
Focus	Adjustable							
Operating temperature	-10 to +40 °C or -10 to +50 °C							
Connector	Red wire "+"; black wire "-"							
Dimensions	Dia. 12mmx L. 29mm							
Weight	13.6 gm typical							

Outline Dimensions of LJP Series Laser Module (unit: mm)



Additional Notes

- The LJP series laser modules are designated solely as OEM components for incorporation into the customer's end products. Therefore, it is the customer's responsibility to comply with the appropriate requirements of FDA 21CFR, section 1040.10 and 1040.11 for complete laser products. For the code of FDA regulations, please refer to [FDA Performance Standards for Light-Emitting Products](#) for detailed information.
- Additional heat sink may be needed if the laser module is operated continuously for a long period of time.
- Specifications are subject to change without notice.



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