



LJP-T Series – TTL Modulated 635nm-980nm Prime Laser Diode Modules

Dia. 12mm, Elliptical Beam, APC Circuit, Compact OEM Design



Overview

The Lasermate LJP-T series laser diode module is designed for OEM applications with very low cost, small size, good heat sink, beam focusing requirements and TTL modulation from DC to 100kHz. Designed for OEM, the laser is ideal for a wide range of low power laser applications, such as leveling, measurement, alignment, and positioning.

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
- TTL modulation up to 100kHz

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-T series laser modules.

Part Number	Wavelength (nm)	Optical output power (mW)	Laser class	Operating voltage (V DC)	Operating Current typical (mA)	Operating temperature (°C)
LJP6351A5-T-B	635	0.5-0.99	II	5	35	-10 to +40
LJP6353A5-T-B	635	2.1-3	IIIa	5	35	-10 to +40
LJP6355A5-T-B	635	4-4.99	IIIa	5	50	-10 to +40
LJP6351A5-T-A	635	0.5-0.99	II	5	35	-10 to +50
LJP6353A5-T-A	635	2.1-3	IIIa	5	35	-10 to +50
LJP6355A5-T-A	635	4-4.99	IIIa	5	50	-10 to +50
LJP6501A5-T-B	650	0.5-0.99	II	5	25	-10 to +40
LJP6503A5-T-B	650	2.1-3	IIIa	5	25	-10 to +40
LJP6501A5-T-A	650	0.5-0.99	II	5	30	-10 to +50
LJP6503A5-T-A	650	2.1-3	IIIa	5	30	-10 to +50
LJP6701A5-T	670	0.5-0.99	II	5	40	-10 to +50
LJP6703A5-T	670	2.1-3	IIIa	5	40	-10 to +50
LJP7803A5-T	780	2.1-3	IIIb	5	30	-10 to +50
LJP8083A5-T	808	2.1-3	IIIb	5	30	-10 to +40
LJP8503A5-T	850	2.1-3	IIIb	5	30	-10 to +50
LJP9043A5-T	904	2.1-3	IIIb	5	30	-10 to +50
LJP9806A5-T	980	4-6	IIIb	5	35	-10 to +40

Specifications of LJP-T Series Laser Diode Modules with TTL Modulation

Wavelength (nm)	635	650	670	780	808	850	904	980
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	5 VDC (red wire "+" & black wire "-")							
Control voltage	Maximum 5V DC (yellow wire "+" & black wire "-")							
Drive circuit	APC (automatic power control) with modulator							
Bandwidth	Up to 100KHz							
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 & yellow wires "+"; black wire "-"							
Dimensions	Dia. 12mm x L. 29mm							
Weight	14 gm typical							

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



Additional Notes

- The LJP-T 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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