



DPSS Laser Kits

Part No.	Description	Size(mm)	Application
GLM8201	Nd:YVO4 + KTP, Green laser microchip	1x1x2.5	Green laser module and pointer, <10mW
GLM8401	Nd:YVO4 + KTP, Green laser microchip	1x1x2.5	Green laser module and pointer, <30mW
GLM8402	Nd:YVO4 + KTP, Green laser microchip	1x1x2.5	Green laser module and pointer, >50mW

NLO Crystal

Part No.	Description	Size(mm)	S1 Coating	S2 Coating	Application
KTP1001	KTP Crystal	2x2x5	R<0.1%@1064nm, R<0.5%@532nm	R<0.1%@1064nm, R<0.5%@532nm	532nm laser 1064nm laser
KTP1002	KTP Crystal	2x2x5	R<0.1%@1064nm, R<0.5%@532nm	R>99.8%@1064nm, R<5%@532nm	532nm laser 1064nm laser
KTP1003	KTP Crystal	3x3x2	R<0.1%@1064nm, R<0.5%@532nm	R<0.1%@1064nm, R<0.5%@532nm	532nm laser 1064nm laser
BIB1001	BIBO Crystal	2x2x5	R<0.1%@946nm, R<0.5%@473nm	R<0.1%@946nm, R<0.5%@473nm	473nm laser 946nm laser
LBO1001	LBO Crystal	2x2x10	R<0.1%@946nm, R<0.5%@473nm	R<0.1%@946nm, R<0.5%@473nm	473nm laser 946nm laser

Cavity Mirror

Part No.	Description	Size(mm)	S1 Coating	S2 Coating	Application
LCM1001	Laser Cavity Mirror Plano-Concave	Φ10x3 R = - 50	R>99.8%@1064nm, R<5%@532nm	R<0.2%@532nm	532nm laser
LCM1002	Laser Cavity Mirror Plano-Concave	Φ10x3 R = - 100	R>99.8%@1064nm, R<5%@532nm	R<0.2%@532nm	532nm laser
LCM1101	Laser Cavity Mirror Plano-Concave	Φ10x3 R = - 50	R>99.8%@946nm, R<5%@473nm	R<0.2%@473nm	473nm laser

808nm Laser Diode

Z-Optics provides full line of 808nm laser diodes. Our products have very competitive price, especially for <3W products. Lifetime of most models is >10,000 hours.

Our products are widely used in laser pumping, medical, IR Illuminator, marking ...

Basic Characteristics of Laser Diodes:

Part No.	Bar Size(um)	Power (W)	Op. Cur. (A)	Op. Volt. (V)	Div. (Deg.)	Package
LD808-200	50x1	0.2	0.20	1.9	35x8	TO18
LD808-500	50x1	0.5	0.65	1.6~2.2	40x12	C-mount, TO9, TO3
LD808-1000	100x1	1.0	1.30	1.6~2.2	40x12	C-mount, TO9, TO3
LD808-2000	150x1	2.0	2.60	1.6~2.2	40x12	0, 3, 4, 5, 6, 7, 8
LD808-3000	150x1	3.0	3.60	1.6~2.2	40x12	0, 4, 6, 7, 8
LD808-5000	200x1	5.0	5.10	1.9~2.2	32x8	0, 6, 7, 8, 9
LD808-6000	200x1	6.0	6.30	1.9~2.2	32x8	0, 9, A
LD808-8000	400x1	8.0	9.00	1.9~2.2	32x10	0, 6, 7, 8, A
LD808-10W	400x1	10.0	12.0	1.9~2.2	32x10	0, A
LD808-25W	1000x1	25.0	33.0	2.0~2.5	35x10	0, A, B
LD808-30W	1000x1	30.0	38.0	2.0~2.5	35x10	0, A, B
LD808-40W	-	40.0	65.0	2.0	-	A, B

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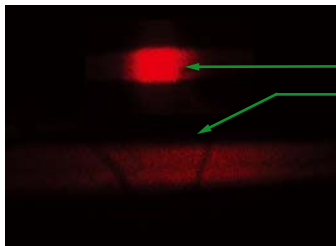
Note: The specifications listed here are for C-mount package. Please contact us for the specifications of other packages.

Package:

- | | | |
|-------------|---|---|
| 0 - C-block | 4 - 4 Pin Package Fiber-Coupled LD Module | 8 - Detachable Fiber LD Module with Aiming Beam |
| 1 - TO18 | 5 - Butterfly Package Fiber-Coupled CW Module | 9 - HHL Package Windows Output CW Module |
| 2 - TO9 | 6 - HHL Package Fiber-Coupled CW Module | A - High Power Fiber-Coupled CW Module |
| 3 - TO3 | 7 - Fiber-Coupled LD Module with Aiming Beam | B - Horizontal Stacked Diode Laser Arrays (CW Output) |

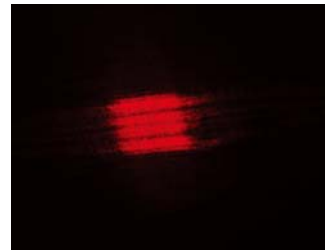
Fast Axis Collimation:

Normally anamorphic prism pair is used to transform the beam profile of laser diode into near circular. Now, you can discard the prism pair. 808nm laser diodes of Z-Optics have similar beam divergence at two dimensions, they are easy to assemble and make your DPSS laser system more compact.



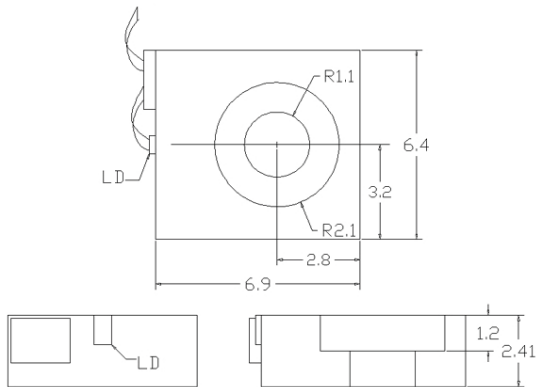
Beam profile measured at 5 mm distance
 Beam profile after collimation
 Beam profile before collimation

Beam profile measured at 460 mm distance after collimation

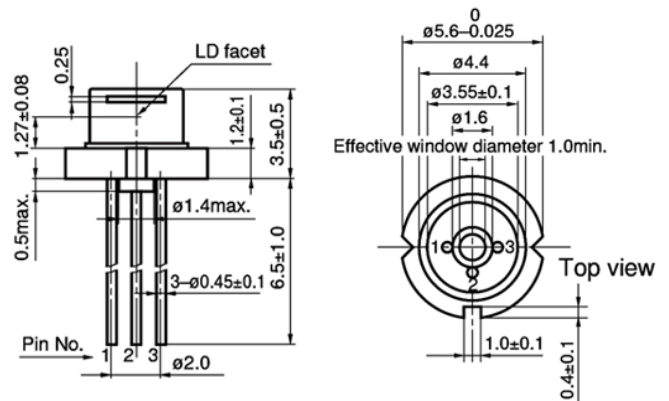


Package Dimensions(mm):

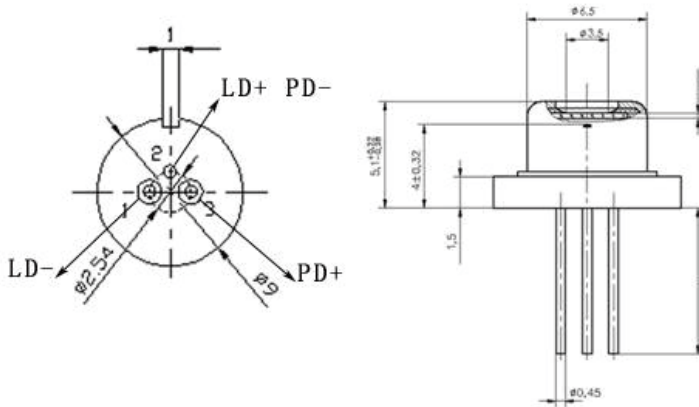
0 - C-block:



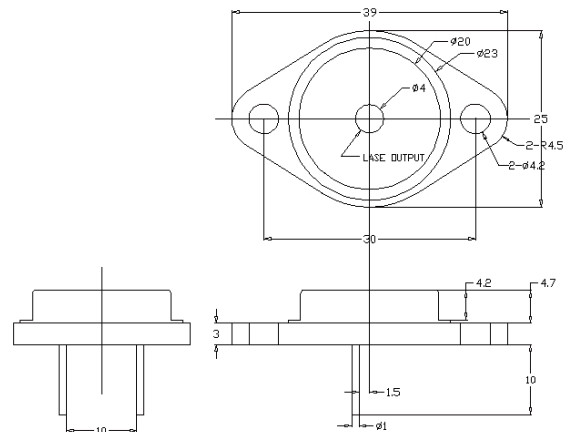
1 - TO18:



2 - TO9:



3 - TO3:



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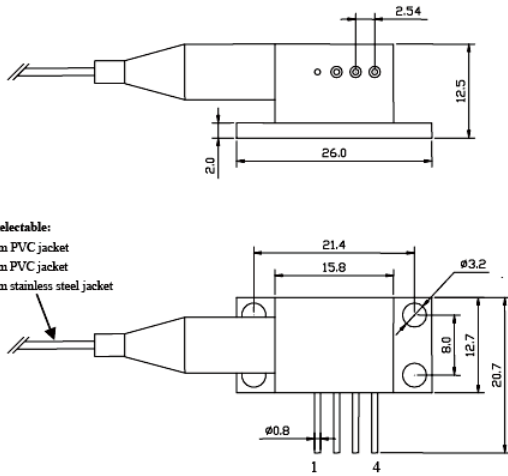
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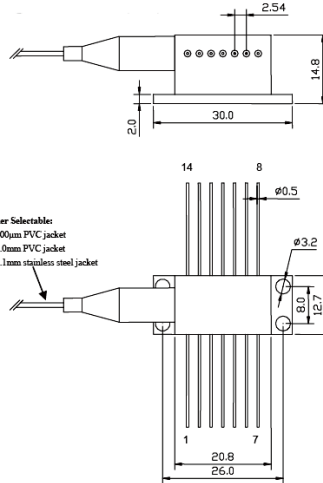
4 - 4 Pin Package Fiber-Coupled LD Module:



Customer Selectable:

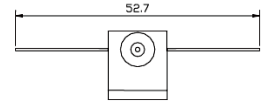
- 900µm PVC jacket
- 3.0mm PVC jacket
- 2.1mm stainless steel jacket

5 - Butterfly Package Fiber-Coupled CW Module :



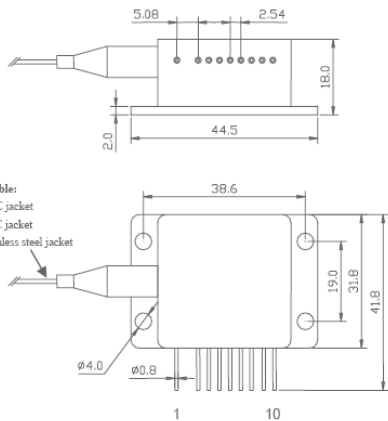
Customer Selectable:

- 900µm PVC jacket
- 3.0mm PVC jacket
- 2.1mm stainless steel jacket



Pin	Function	Pin	Function
1	TEC (+)	8	None
2	Thermistor (1)	9	None
3	PD (P)	10	Laser Anode (+)
4	PD (N)	11	Laser Cathode (-)
5	Thermistor (2)	12	None
6	None	13	Case
7	None	14	TEC (-)

6 - HHL Package Fiber-Coupled CW Module:

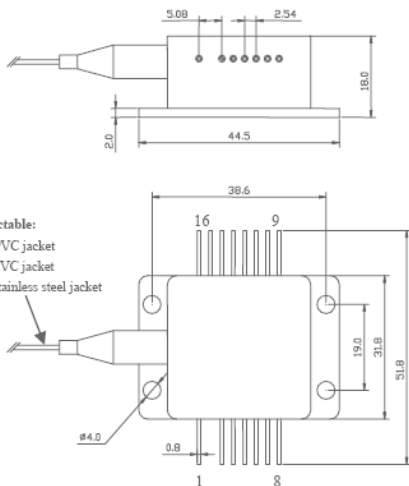


Customer Selectable:

- 900µm PVC jacket
- 3.0mm PVC jacket
- 2.1mm stainless steel jacket

Pin	Function	Pin	Function
1	TEC (-)	6	Thermistor (2)
2	None	7	Laser Cathode (-)
3	Case	8	PD (P)
4	Laser Anode (+)	9	PD (N)
5	Thermistor (1)	10	TEC (+)

7 - Fiber-Coupled LD Module with Aiming Beam:



Customer Selectable:

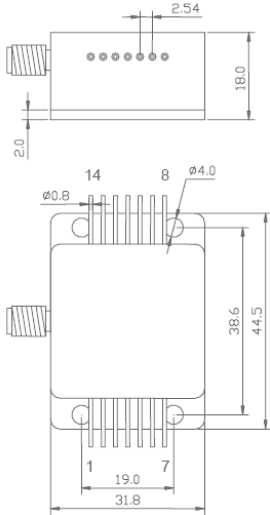
- 900µm PVC jacket
- 3.0mm PVC jacket
- 2.1mm stainless steel jacket

Pin	Function	Pin	Function
1	Case	9	TEC (-)
2	None	10	None
3	Laser Anode (+)	11	None
4	Thermistor (1)	12	None
5	Thermistor (2)	13	None
6	Laser Cathode (-)	14	Aiming Beam LD Anode(+)
7	PD (P)	15	Aiming Beam LD Cathode (-)
8	PD (N)	16	TEC (+)



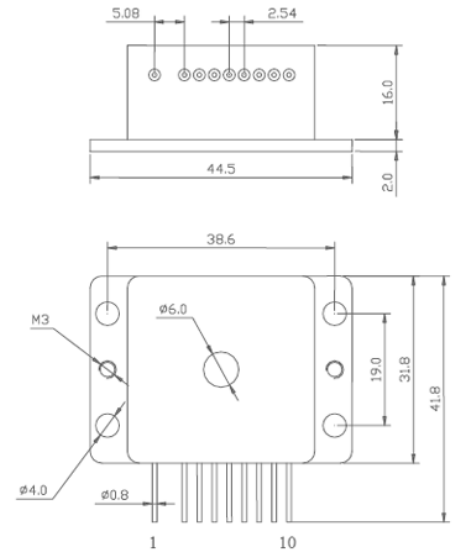
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8 - Detachable Fiber LD Module with Aiming Beam:

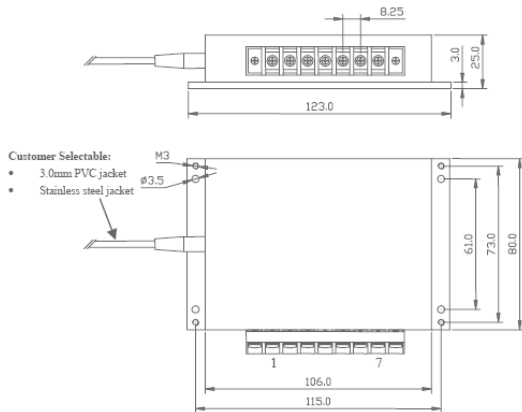


Pin	Function	Pin	Function
1	Case	8	TEC (-)
2	Laser Anode (+)	9	None
3	Thermistor(1)	10	None
4	Thermistor(2)	11	None
5	Laser Cathode (-)	12	Aiming Beam LD Anode(+)
6	PD (P)	13	Aiming Beam LD Cathode (-)
7	PD (N)	14	TEC (+)

9 - HHL Package Windows Output CW Module:



A - High Power Fiber-Coupled CW Module:



Pin	Function
1	Laser Anode (+)
2	Laser Cathode (-)
3	PD (N)
4	PD (P)
5	Aiming Beam LD (+) (Input 5V +) *
6	Aiming Beam LD (-) (Input 5V -) *
7	Aiming Beam Control

* Aiming beam will be at CW condition when connecting Pin 5 and Pin 7.

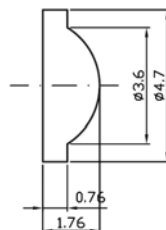
Pin	Function	Pin	Function
1	TEC (-)	6	Thermistor(2)
2	None	7	Laser Cathode (-)
3	Case	8	PD (P)
4	Laser Anode (+)	9	PD (N)
5	Thermistor(1)	10	TEC (+)

Coupling Lens

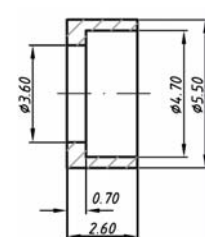
Coupling lens is used to couple the pumping light to active crystal. Z-optics provides plastic aspherical lens (NA>0.6), glass aspherical lens and GRIN lens. Plastic lens is used for low power applications (P<500mW @ 808nm) or R&D. Glass aspherical lens can stand high power laser intensity, but is most expensive. GRIN lens has short work distance, but can stand high power laser intensity and much more friendly price than glass aspherical lens.

Plastic Aspherical Lens:

Lens dimensions: (mm)



Holder dimensions: (mm)



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