

Model No. LD780Y6D16
780nm 6mW 60°C Laser Diode in TO-5 Ø9.0mm Package

FEATURES

- 780nm 6mW CW AlGaAs Laser Diode
- Package: TO-5 (dia. 9.0mm)
- Number of beams: 4
- Nominal beam to beam separation: 14um pitch (beam to beam distance)

APPLICATIONS

- Laser printer
- Digital copier
- Industrial optical module
- Sensor

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	CONDITION	RATING	UNIT
OPTICAL OUTPUT POWER	P _O	CW	10	mW
REVERSE VOLTAGE (LD)	V _{RL}	-	2	V
REVERSE VOLTAGE (PD)	V _{RD}	-	30	V
OPERATING TEMPERATURE	T _{opr}	-	-10 to +60	°C
STORAGE TEMPERATURE	T _{stg}	-	-40 to +85	°C

ELECTRICAL AND OPTICAL CHARACTERISTICS (T_c = 25 °C)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	DIFF.	UNIT	CONDITIONS
LASING WAVELENGTH	λ _p	775	788	800	2	nm	P _O = 6mW
THRESHOLD CURRENT	I _{th}	8	14	24	2	mA	
OPERATING CURRENT	I _{op}	-	27	38	3	mA	P _O = 6mW
DIFFERENTIAL EFFICIENCY	η	0.35	0.5	0.8	0.2	mW/mA	5mW/I(6mW)-I(1mW)
OPERATING VOLTAGE	V _{op}	1.5	1.8	2.5		V	P _O = 6mW
MONITOR CURRENT	I _m	0.25	0.4	0.8	30%	mA	P _O = 6mW
PARALLEL DIVERGENCE ANGLE	Θ _{//}	7	9	12	2	deg	P _O = 6mW
PERPENDICULAR DIVERGENCE ANGLE	Θ _⊥	25	31	35	4	deg	P _O = 6mW
PARALLEL FFP DEVIATION ANGLE	Δ Θ _{//}	-2	0	+2		deg	P _O = 6mW
PERPENDICULAR FFP DEVIATION ANGLE	Δ Θ _⊥	-3	0	+3		deg	P _O = 6mW
CENTER TO CENTER SPACING BETWEEN ADJACENT BEAMS		13.7	14	14.3		um	SEM measurement
BEAM SPACING		41.7	42	42.3		um	LD1 to LD4
ASTIGMATISM	A _s			10	2	um	P _O = 6mW

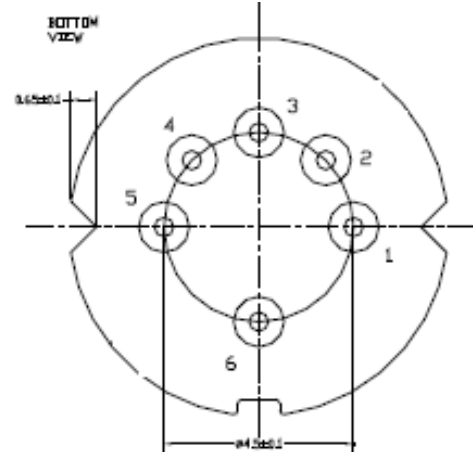
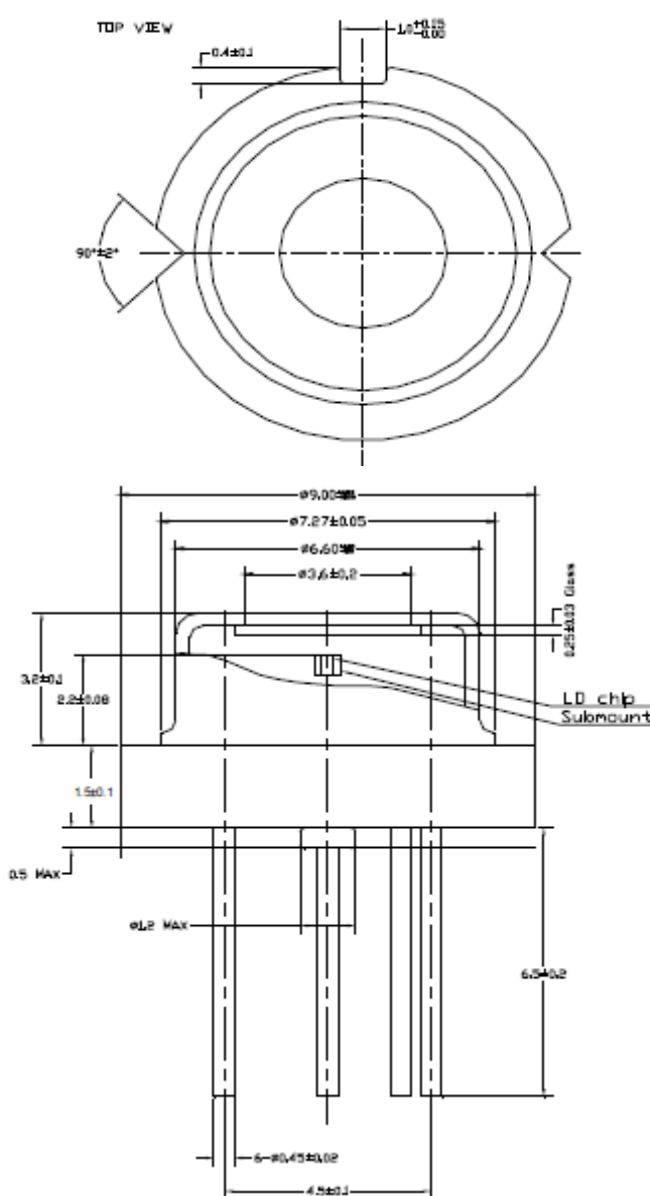
Note: The above specifications are subject to change without notice.



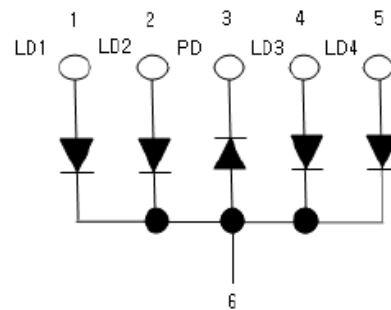
LASERMATE GROUP, INC.

The Friend of Lasers

MECHANICAL OUTLINE (unit: mm)



Pin Configuration



PRECAUTIONS

- Do not operate the device above maximum ratings. Doing so may cause unexpected and permanent damage to the device.
- Take precautions to avoid electrostatic discharge and/or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
- Proper heat sinking of the device assures stability and lifetime. Always ensure that maximum operating temperatures are not exceeded.
- Observing visible or invisible laser beams with human eye directly, or indirectly, can cause permanent damage. Use a camera to observe the laser.
- No laser device should be used in any application or situation where life or property is at risk in the event of device failure.
- Specifications are subject to change without notice. Ensure that you have the latest specification by contacting us prior to purchase or use of the product.

Note: The above specifications are subject to change without notice.



19608 Camino De Rosa, Walnut, CA 91789, USA | Tel: (909)718-0999 | Fax: (909)718-0998 |

E-mail: info@lasermate.com | URL: <http://www.lasermate.com>