



LASERMATE GROUP, INC.

The Friend of Lasers

Model No. LD780V15C16
780nm 15mW 60°C Laser Diode in TO-18 Ø5.6mm Package

FEATURES

- 780nm 15mW CW AlGaAs Laser Diode
- Package: TO-18 (dia. 5.6mm)
- Dual Beam: 14um pitch (beam to beam)
- Built-in photodiode for monitoring laser diode

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	CONDITION	RATING	UNIT
OPTICAL OUTPUT POWER	P _O	CW	18	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	1.8	nm	P _O = 15mW
THRESHOLD CURRENT	I _{th}	8	14	20	2	mA	-
OPERATING CURRENT	I _{op}	-	35	50	-	mA	P _O = 15mW
DIFFERENTIAL EFFICIENCY	η	0.55	0.75	0.95	-	mW/mA	P _O = 15mW
OPERATING VOLTAGE	V _{op}	1.5	2.0	2.4		V	P _O = 15mW
MONITOR CURRENT	I _m	0.6	1.3	2.0	30%	mA	P _O = 15mW
PARALLEL DIVERGENCE ANGLE	θ _{//}	7	9	12	2	deg	P _O = 15mW
PERPENDICULAR DIVERGENCE ANGLE	θ _⊥	25	31	35	3	deg	P _O = 15mW
PARALLEL FFP DEVIATION ANGLE	Δ θ _{//}	-2	0	+2		deg	P _O = 15mW
PERPENDICULAR FFP DEVIATION ANGLE	Δ θ _⊥	-3	0	+3		deg	P _O = 15mW
ASTIGMATISM	A _s			10	2	um	P _O = 15mW
CENTER TO CENTER SPACING BETWEEN ADJACENT BEAMS		13.5	14	14.5		um	SEM measurement
PD DARK CURRENT	I _d	-	-	100	-	nA	-
EMISSION POINT ACCURACY	Δx Δy Δz	-80	0	+80		um	P _O = 15mW

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



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