



SEMCO LASER TECHNOLOGY *

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LD- 505

Visible Laser Diode Technical Data

ABSOLUTE MAXIMUM RATINGS (Tc=25°C)

- Index Guided MQW Structure
- Wavelength : 655 nm (Typ.)
- Optical Power : 5 mW CW
- Threshold Current : 25 mA (Typ.)
- Standard Package : 9 mm Ø

DESCRIPTION	SYMBOL	RATED VALUE
Optical power (mW)	PO	5
Operation Temperature (°C)	Top	-10 to +40
Storage Temperature (°C)	Tstg	-40 to +85
LD reverse voltage (V)	VLDR	2
PD reverse voltage (V)	VPDR	30

OPTICAL AND ELECTRICAL CHARACTERISTICS (Tc=25°C)

DESCRIPTION	SYMBOL	MIN.	TYPICAL	MAX.	TEST CONDITION
Lasing Wavelength (nm)	λ_p	645	655	665	Po=5mW
Threshold Current (mA)	I _{th}	15	25	40	Po=5mW
Operation Current (mA)	I _{op}	25	35	50	Po=5mW
Operation Voltage (V)	V _{op}	2.0	2.4	2.7	Po=5mW
Monitor Current (µA)	I _m	1	30	90	Po=5 mW, Vr=5V
Slope Efficiency (mW/mA)	ζ	0.4	0.5	0.7	***
Beam Divergence // (°)	$\theta_{//}$	8	10	11	Po=5mW
Beam Divergence ⊥ (°)	θ_{\perp}	25	31	40	Po=5mW
Astigmatism (µm)	A _s	***	11	***	Po=5mW, NA=0.4

