

# ADT8505MG

## IR Laser Diode Technical Data

### ABSOLUTE MAXIMUM RATINGS ( $T_c=25^{\circ}\text{C}$ )

DESCRIPTION	SYMBOL	RATED VALUE
Optical Power (mW)	Po	5
Operation Temperature ( $^{\circ}\text{C}$ )	Top	-10 to +60
Storage Temperature ( $^{\circ}\text{C}$ )	Tstg	-40 to +85
LD Reverse Voltage (V)	VLDR	2
PD Reverse Voltage (V)	VPDR	30

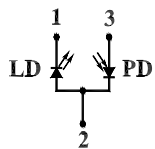
### Features

- Index Guided MQW Structure
- Wavelength : 850 nm (Typ.)
- Optical Power : 5 mW CW
- Threshold Current : 25 mA ( Typ. )
- Standard Package : 5.6 mm  $\varnothing$

### OPTICAL AND ELECTRICAL CHARACTERISTICS ( $T_c=25^{\circ}\text{C}$ )

DESCRIPTION	SYMBOL	MIN.	TYPICAL	MAX.	TEST CONDITION
Lasing Wavelength (nm)	$\lambda_p$	830	850	870	Po=5mW
Threshold Current (mA)	Ith	15	25	40	Po=5mW
Operation Current (mA)	Iop	25	35	50	Po=5mW
Operation Voltage (V)	Vop	2.0	2.2	2.7	Po=5mW
Monitor Current ( $\mu\text{A}$ )	Im	100	200	500	Po=5mW, VR=5V
Slope Efficiency (mW/mA)	$\eta$	0.3	0.4	0.7	***
Beam Divergence $\parallel$ ( $^{\circ}$ )	$\theta_{\parallel}$	8	10	11	Po=5mW
Beam Divergence $\perp$ ( $^{\circ}$ )	$\theta_{\perp}$	25	31	40	Po=5mW
Astigmatism ( $\mu\text{m}$ )	As	***	11	***	Po=5mW, NA=0.4

### Pin Connection



1. Laser diode cathode
2. Laser diode anode
3. Photodiode cathode

\* Case and Pin no. 2 are common

