

## Laser Diode Technical Data

# L980P100

### Features

- Index Guided MQW Structure
- Wavelength : 980 nm (Typ.)
- Optical Power : 100 mW CW
- Threshold Current : 35 mA ( Typ. )
- Package Style : TO-18 (5.6 mmØ)

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

DESCRIPTION	SYMBOL	RATED VALUE
Optical Power (mW)	$P_o$	100
Operation Temperature ( $^\circ\text{C}$ )	$T_{op}$	-10 to +50
Storage Temperature ( $^\circ\text{C}$ )	$T_{stg}$	-40 to +85
LD Reverse Voltage (V)	$V_{LDR}$	2
PD Reverse Voltage (V)	$V_{PDR}$	30

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

DESCRIPTION	SYMBOL	MIN.	TYPICAL	MAX.	TEST CONDITION
Lasing Wavelength (nm)	$\lambda_p$	965	980	995	$P_o=100\text{mW}$
Threshold Current (mA)	$I_{th}$	25	35	45	$P_o=100\text{mW}$
Operating Current (mA)	$I_{op}$	150	200	250	$P_o=100\text{mW}$
Operating Voltage (V)	$V_{op}$	1.8	2.0	2.4	$P_o=100\text{mW}$
Monitor Current (mA)	$I_m$	0.5	2.0	3.0	$P_o=100\text{mW}$ , $V_R=5\text{V}$
Slope Efficiency (mW/mA)	$\eta$	0.3	0.5	0.7	***
Beam Divergence $\parallel$ ( $^\circ$ )	$\theta_{\parallel}$	8	10	12	$P_o=100\text{mW}$
Beam Divergence $\perp$ ( $^\circ$ )	$\theta_{\perp}$	25	30	40	$P_o=100\text{mW}$
Astigmatism ( $\mu\text{m}$ )	$A_s$	*	11	*	$P_o=100\text{mW}$ , $NA=0.4$

