

## Laser Diode LCA904100M5N

### Features

- Index Guided MQW Structure
- Wavelength: 904 nm (Typ.)
- Optical Power: 100 mW CW
- Threshold Current: 100 mA (Typ.)
- Package Style: TO-18 (5.6 mmØ)

### Absolute Maximum Ratings (T<sub>c</sub>=25 °C)

Description	Symbol	Rated Value
Optical Power (mW)	P <sub>o</sub>	100
Operation Temperature (°C)	T <sub>op</sub>	-10 to +50
Storage Temperature (°C)	T <sub>stg</sub>	-40 to +85
LD Reverse Voltage (V)	V <sub>LDR</sub>	2
PD Reverse Voltage (V)	V <sub>PDR</sub>	30



## Optical and Electrical Characteristics (T<sub>c</sub>=25 °C)

Description	Symbol	Min.	Typical	Max.	Test Condition
Lasing Wavelength (nm)	$\lambda_p$	890	904	910	P <sub>o</sub> =100 mW
Threshold Current (mA)	I <sub>th</sub>	70	100	150	P <sub>o</sub> =100 mW
Operating Current (mA)	I <sub>op</sub>	200	250	350	P <sub>o</sub> =100 mW
Operating Voltage (V)	V <sub>op</sub>	1.8	2.0	2.5	P <sub>o</sub> =100 mW
Monitor Current (mA)	I <sub>m</sub>	0.9	1.0	2.0	P <sub>o</sub> =100 mW, V <sub>r</sub> =5V
Slope Efficiency (mW/mA)	$\eta$	0.5	0.7	0.9	***
Beam Divergence $\parallel$ (°)	$\theta_{\parallel}$	3	5	8	P <sub>o</sub> =100 mW
Beam Divergence $\perp$ (°)	$\theta_{\perp}$	30	40	50	P <sub>o</sub> =100 mW
Astigmatism ( $\mu$ m)	A <sub>s</sub>	*	11	*	P <sub>o</sub> =100 mW, NA=0.4

