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ROHM

Excellence in Electronics

Laser Diode

RLD-65NE

FEATURES:

- wavelength $\lambda \approx 650$ nm
- single mode
- InGaAlP-multiple-
- quantum-well structure
- very small, compact package, with close tolerances
- suitable for bar code readers, laser pointers, sensoring etc.

Absolute maximum ratings ($T_a=25^\circ\text{C}$)

Parameter	RLD-65NE		
optical power	P_o	mW	5
rev. voltage Laser	V_R	V	2
rev. voltage PIN photodiode	$V_{R(PIN)}$	V	30
operating temperature	T_{opr}	$^\circ\text{C}$	-10...+40
storage temperature	T_{stg}	$^\circ\text{C}$	-40...+85

Electro-optical characteristics ($T_a=25^\circ\text{C}$)

Parameter	min	typ	max	unit	condition
threshold current	I_{th}		27	40	mA
operating current	I_{op}		35	50	mA
operating voltage	V_{op}	2.3	2.6	V	$P_o=5\text{mW}$
differential efficiency	η	0.3	0.6	0.9	$\frac{\text{mW}}{\text{mA}}$ $I_{5\text{mW}} - I_{3\text{mW}}$
monitor current	I_m	0.1	0.25	0.5	mA
beam divergence, parallel	$\theta_{ }$	6	8	10	deg
beam divergence, perpendicular	θ_{\perp}	20	27	35	deg
beam tolerance, parallel	$\Delta\phi_{ }$			± 3	deg
beam tolerance, perpendicular	$\Delta\phi_{\perp}$			± 4	deg
emission point accuracy	ΔX ΔY ΔZ			± 100	μm
wavelength	λ	650	657	663	nm

θ_{\perp} and $\theta_{||}$ are defined as FWHM,
all parameters except wavefront aberration are controlled by 100%

package	5.6mm-Ø-TO-package	see package
polarity	N-type	see polarity