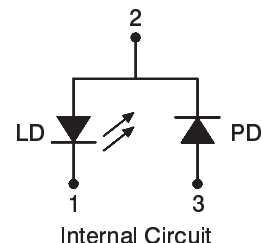


Toshiba TOLD9231M

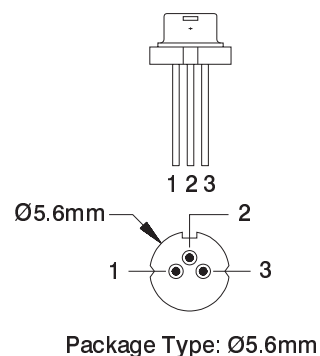
Laser Diode Specifications

The Toshiba TOLD9231M is a gain guided laser diode with a multi-quantum well structure. The maximum optical output is 5mW and the typical operating wavelength is 670nm. The TOLD9231M is a multi-mode diode which is applicable to products such as bar-code readers, alignment systems and measurement systems. The TOLD9231M has a Ø5.6mm package.



Absolute Maximum Ratings (Tc=25 °C)

Characteristic	Symbol	Value	Unit
Optical output power	Po	5	mW
Laser diode reverse voltage	VR(LD)	2	V
Photodiode reverse voltage	VR(PD)	30	V
Operating temperature	Topr	-10 to +60	°C
Storage temperature	Tstg	-40 to +85	°C



Operating and Electrical Characteristics (Tc=25 °C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Threshold current	I _{th}	—	50	75	mA	—
Operating current	I _{op}	—	60	85	mA	Po=5mW
Operating voltage	V _{op}	—	2.3	3.0	V	Po=5mW
Lasing Wavelength	λ _p	660	670	680	nm	Po=5mW
Beam divergence (parallel)	θ _{//}	7	10	16	deg	Po=5mW, (FWHM)
Beam divergence (perpendicular)	θ _⊥	26	32	38	deg	Po=5mW, (FWHM)
Monitor current	I _m	0.25	0.9	1.7	mA	Po=5mW
Photodiode dark current	I _D (PD)	—	—	100	nA	VR(PD)=5V
Photodiode total capacitance	C _T (PD)	—	—	20	pF	VR(PD)=5V, f=1MHz
Astigmatism	As	—	40	—	microns	—

Disclaimer: The laser diode information summarized above is based on the respective diode manufacturer's commercial catalog and/or data sheet specifications. The data is presumed to be accurate; however, it is subject to change without notice. Optima makes no representation as to the accuracy of the information and does not assume any responsibility for errors or omissions contained herein. The user must refer to the manufacturers specifications for details concerning the intended application and operation, diode limitations, and safety.

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