

Sanyo DL7147-201

Laser Diode Specifications

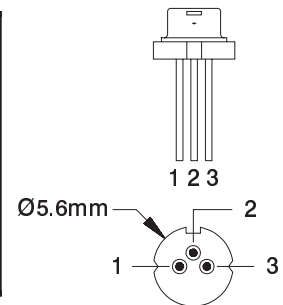
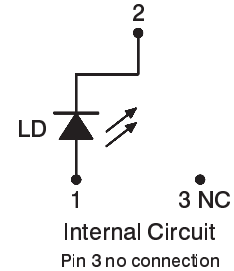
The Sanyo DL7147-201 is a high-power, index guided, visible laser diode with a typical operating wavelength of 658nm and an absolute maximum optical output of 60mW in the CW mode and 100mW in the *pulse mode. Possible applications include CD-R products and similar optical storage products. The DL7147-201 has a Ø5.6mm package.

Important note: The DL7147-201 does NOT have an internal photodiode.

Absolute Maximum Ratings (Tc=25 °C)

Characteristic		Symbol	Value	Unit
Optical output power	CW	Po (CW)	60	mW
	Pulse ¹	Po (pulse)	100	
Laser diode reverse voltage		VR(LD)	2	V
Operating temperature	CW ²	Topr	- 10 to + 75	°C
Storage temperature		Tstg	- 40 to + 85	°C

1) Pulse Width $\leq 0.1\mu s$, Duty cycle 50%, Peak power 2) Case temperature



Package Type: Ø5.6mm

Operating and Electrical Characteristics (Tc=25 °C) (Notes 3, 4, & 5)

Characteristic	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Threshold current	I _{th}	—	40	50	mA	CW
Operating current (Tc=25°C)	I _{op}	—	90	120	mA	Po=50mW
Lasing Wavelength	λ_p	—	658	662	nm	Po=50mW
Beam divergence (parallel) ⁵	$\theta_{//}$	7.5	9.0	11	deg	Po=50mW, (FWHM)
Beam divergence (perpendicular) ⁵	θ_{\perp}	15	16	20	deg	Po=50mW, (FWHM)
Off axis Angle	Parallel ± 2.0		Perpendicular ± 2.0		deg	
Differential efficiency	η	—	1.1	—	mW/mA	—
Astigmatism	As	—	1	—	microns	Po=50mW

Notes: 3) Initial values. 4) All the above values are evaluated with Tottori Sanyo's measuring apparatus. 5) Full angle at half maximum.

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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