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LD1550A20C25
1550nm 20mW 50°C CW Laser Diode in ⌀5.6mm TO-18 Can Package

Description

The Lasermate LD1550A20C25 is a 1550nm, 20mW distributed feedback (DFB) laser diode in a ⌀5.6mm, TO-can package and with operating temperature of 50°C. The laser diode is suitable as laser light source for many applications.

Features

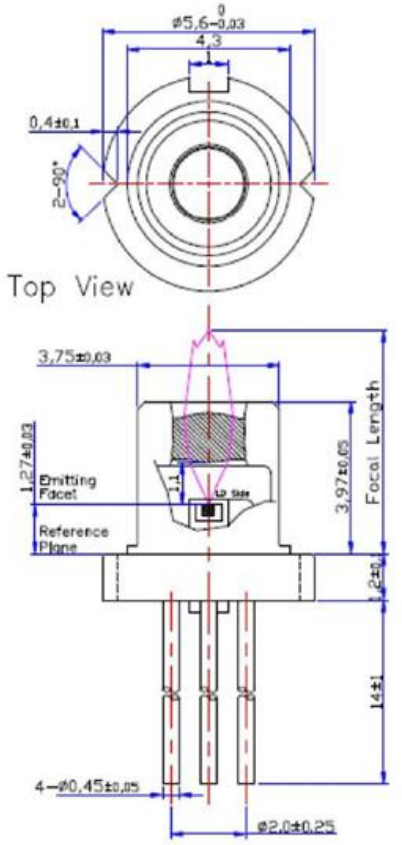
- 1550nm Infrared DFB laser diode
- Optical output power: 20mW CW
- Operating temperature: +50°C
- Efficient Quantum Well Structure
- Built-in monitor photodiode
- Package: TO-18 (dia. 5.6mm)

Specifications

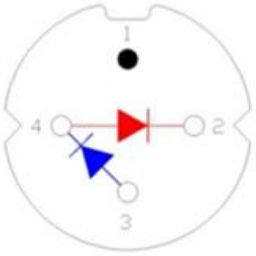
Absolute Maximum Ratings			
Parameters	Symbol	Value	Unit	Conditions
Storage temperature	Tstg	-40 to +95	°C	
Operating case temperature	Top	-20 to +50	°C	
Output power	Po	20	mW	
Forward current (LD)	I_{FLD}	120	mA	
Reverse voltage (LD)	V_{RLD}	2	V	
Forward current (PD)	I_{FPD}	2	mA	
Reverse voltage (PD)	V_{RPD}	15	V	
Soldering temperature	Stemp	260	°C	

Electro-Optical Characteristics (CW @ T_C = 25°C unless otherwise noted)							
Parameters		Symbol	Min.	Typ.	Max.	Unit	Conditions
Threshold current		I_{th}	-	8	15	mA	CW
Operating current		I_{op}	-	-	100	mA	CW, P_o=20mW
Operating voltage		Vop	-	1.1	1.5	V	CW, Pop, Tc=-20~50°C
Wavelength		λ_p	1547	1550	1553	nm	CW
Beam divergence (FWHM	Parallel	$\Theta_{//}$		9		deg	P_o=20mW
	Perpendicular	$\Theta_{\perp}$		20		deg	P_o=20mW
Focal length		Df	7.0	7.5	8.0	nm	CW, P_o=20mW
PD Monitor current		Im	80	-	1000	uA	Pop, V_{RPD}=5V
PD Dark current		Id			100	nA	V_{RPD}=5V
PD Capacitance		C	-	5	15	pF	V_{RPD}=5V, f=1MHz

Mechanical Outline (unit: mm)



Pin No.	Function
1	Case
2	LD Cathode
3	PD Anode
4	LD Anode/PD cathode



Additional Notes

- Do not operate the device above maximum ratings. Doing so may cause unexpected and permanent damage to the device.
- Take precautions to avoid electrostatic discharge and/or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
- Proper heat sinking of the device assures stability and lifetime. Always ensure that maximum operating temperatures are not exceeded.
- Observing visible or invisible laser beams with human eye directly, or indirectly, can cause permanent damage. Use a camera to observe the laser.
- No laser device should be used in any application or situation where life or property is at risk in the event of device failure.
- Specifications are subject to change without notice. Ensure that you have the latest specification by contacting us prior to purchase or use of the product.