



LD650D300F13

High Power 650nm 300mW FP Laser Diode in TO3 Package

Description

The Lasermate LD650D300F13 is a high power 650nm, 300mW Fabry-Perot laser diode in TO3 package. The laser diode is suitable as laser light source for many applications, including bar code scanner.

Features

- 650nm Fabry-Perot cavity semiconductor laser
- Optical output power: 300mW CW
- High output power
- No monitor photodiode
- Package: TO3

Applications

- Bar code scanner

Specifications ($T_c = 20^\circ\text{C}$)

Optical Characteristics

PARAMETER	MIN.	TYP.	MAX.	UNIT
Lasing wavelength	640	650	660	nm
Output power	-	300	-	mW
Spectral width	-	1.0	2.0	nm
Emitting area width	-	100	-	um
Temperature coefficient	-	0.30	-	nm/ $^\circ\text{C}$
Fast axis divergence	-	34	38	deg
Slow axis divergence	-	7	10	deg

Electrical Characteristics

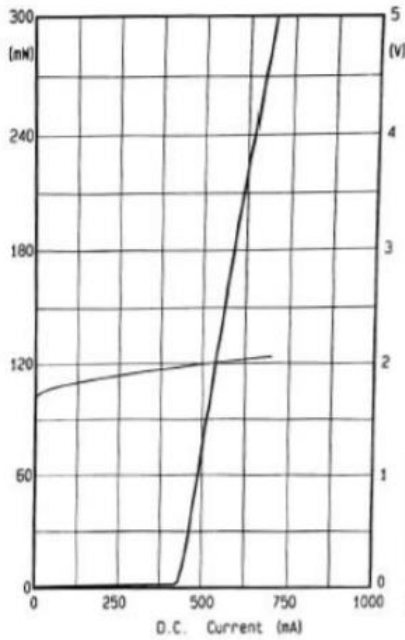
PARAMETER	MIN.	TYP.	MAX.	UNIT
Slope efficiency	0.90	-	-	W/A
Threshold current	-	0.45	0.65	A
Operating current	-	0.70	1.00	A
Operating voltage	-	2.00	2.30	V

Other Characteristics

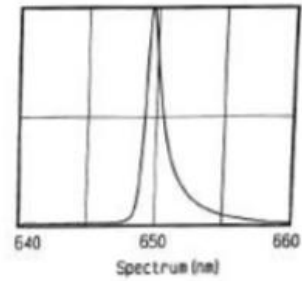
PARAMETER	MIN.	TYP.	MAX.	UNIT
Package	TO3			-
Operating temperature	10		30	$^\circ\text{C}$
Storage temperature	-10		60	$^\circ\text{C}$

Typical Characteristics

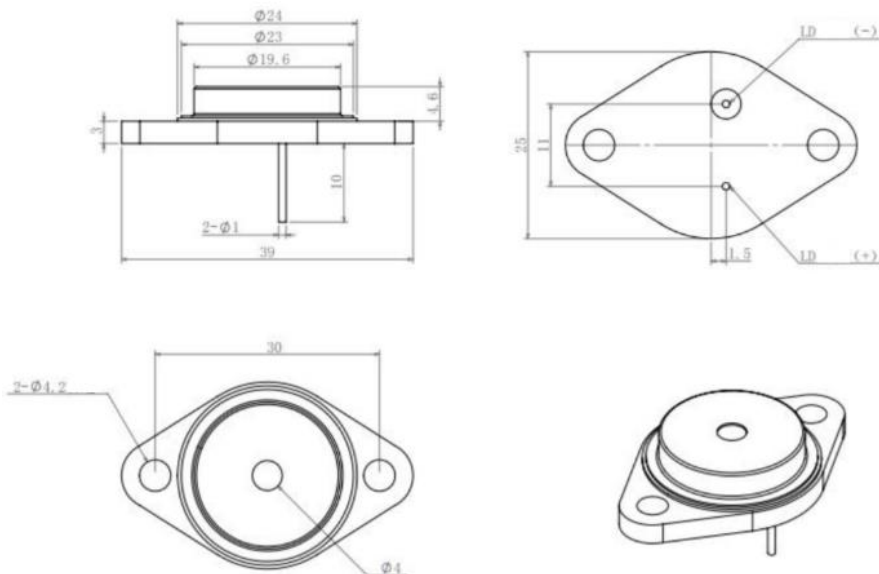
P-I-V CURVE



SPECTRAL CURVE



Mechanical Outline (unit: mm)





Additional Notes

- Data in the sheet are based on C-mount package heat sink testing.
- 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.



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