

SPECIFICATIONS

1650nm Pulsed FP Laser TO-CAN

DL-FPL650110T-A

A. PRODUCT DESCRIPTION

The DL-FPL650110T-A is an InGaAsP based Fabry-Perot laser in a TO-56 package, with an aspherical lens, optimized for telecommunication test & measurement applications.



B. FEATURES

- Uncooled 1650nm Fabry-Perot laser
- Operating temperature from 0°C to 60°C
- Optical output min.110mW(pulsed)

C. APPLICATIONS

- Test & Measurement (OTDR)

PRELIMINARY

D. ABSOLUTE MAXIMUM RATINGS

Operation beyond the absolute maximum ratings can cause degradation in device performance leading to permanent damage to the device.

Parameter	Symbol	Test Conditions	Min	Max	Unit
Reverse voltage	V_R	–	–	2	V
Case operating temperature	T_c	Pulsed ¹	0	60	°C
Storage temperature	T_{stg}	Unbiased	-40	85	°C
Electro static discharge (ESD)	V_{ESD}	Human body model	–	500	V
Lead soldering temperature	S_{temp}	–	–	260	°C
Lead soldering time	S_{time}	–	–	10	S

E. ELECTRO-OPTICAL CHARACTERISTICS

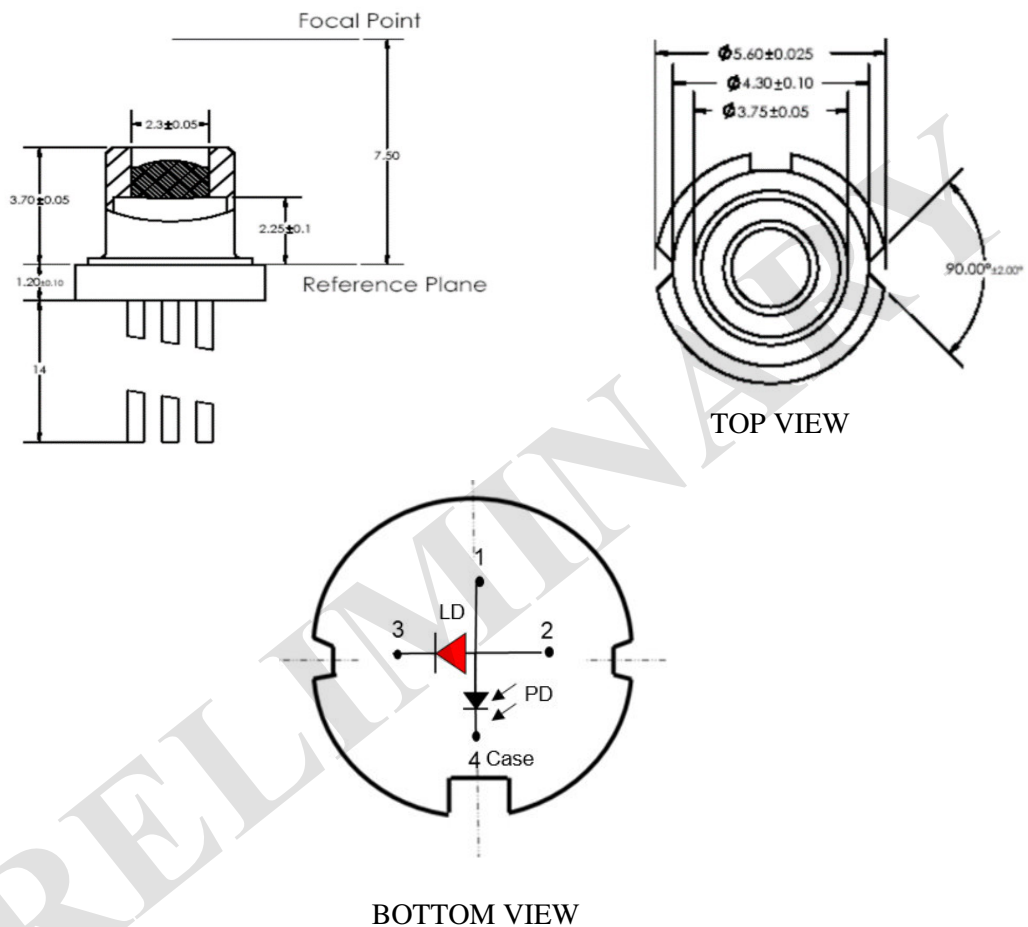
(at T_c of 25°C, unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Optical output power	P_O	Pulsed ¹	110	–	–	mW
Threshold current	I_{th}	$T_c = 25^\circ\text{C}$, Pulsed ¹	–	45	55	mA
		$T_c = 60^\circ\text{C}$, Pulsed ¹	–	135	145	
Operating current	I_{op}	$T_c = 25^\circ\text{C}$, Pulsed ¹	–	550	650	mA
		$T_c = 60^\circ\text{C}$, Pulsed ¹	–	900	1000	
Forward voltage	V_{op}	Pulsed ¹	–	2.5	3	V
Slope efficiency	η_s	$T_c = 25^\circ\text{C}$, Pulsed ¹	0.18	0.21	–	mW/mA
		$T_c = 60^\circ\text{C}$, Pulsed ¹	0.12	0.15	–	
Peak wavelength	λ_p	Pulsed ¹	1630	1650	1670	nm
Spectral Width (RMS)	$\Delta\lambda$	Pulsed ¹	–	–	15	nm
Monitor current	I_m	$P_0 = 110\text{mW}$	0.01	–	–	mA

Note:

1. Pulsed condition: Pulse width 20us, duty cycle 1%

F. PHYSICAL DIMENSIONS AND MECHANICAL SPECIFICATION



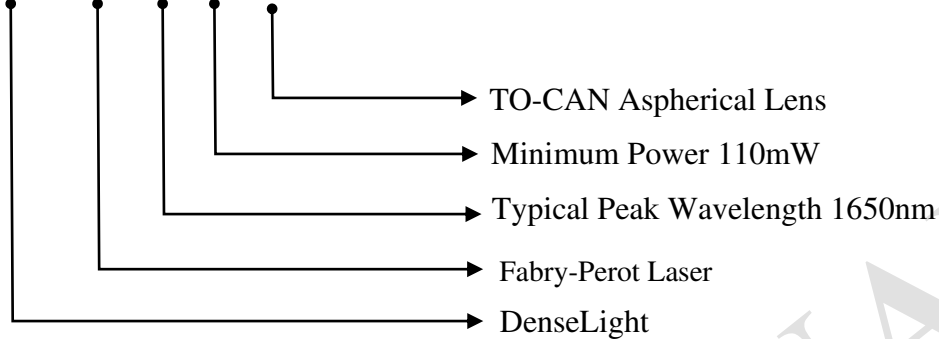
Pin Assignment	Description
1	PD Anode
2	LD Anode
3	LD Cathode
4	PD Cathode, Case

Device Handling

1. This device has ESD withstand voltage of 500V. EOS may result from improper ESD handling

G. PRODUCT NAMING

DL – FPL 650 110 T-A



H. DISCLAIMER FOR CUSTOMER SPECIFIC APPLICATIONS

Denselight product is not intended for use other than stated on the application note or as defined in the product specification. The performance of the product should always be tested in the actual application conditions. As our products are used in conditions beyond our control, we cannot assume any liability for damage caused through their use. Users of DenseLight products are solely responsible to thoroughly test and qualify their system and / or application for their intended application and have determined such at their sole discretion. DenseLight cannot assume any liability for the use of our products in conjunctions with other. Customer assumes the sole risk and liability of the product performance other than specified by the product specific data sheet or application notes without DenseLight's specific written consent.