

## **SPECIFICATIONS**

### **1650nm Pulsed FP Laser TO-Pigtail**

#### **DL-FPL65050P**

## A. PRODUCT DESCRIPTION

The DL-FPL65050P is an InGaAsP based Fabry-Perot laser in a TO-Pigtail 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. 50mW(pulsed)

## C. APPLICATIONS

- Test & Measurement (OTDR)

## 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	$T_c$	CW	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)

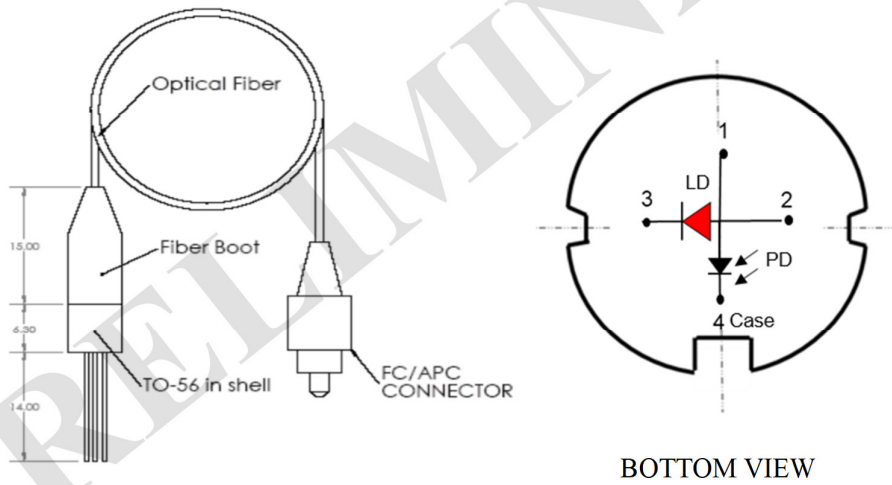
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Optical output power	$P_O$	Pulsed <sup>1</sup>	50	–	–	mW
Threshold current	$I_{th}$	$T_c = 25^\circ\text{C}$ , Pulsed <sup>1</sup>	–	45	55	mA
		$T_c = 60^\circ\text{C}$ , Pulsed <sup>1</sup>	–	135	145	
Operating current	$I_{op}$	$T_c = 25^\circ\text{C}$ , Pulsed <sup>1</sup>	–	550	650	mA
		$T_c = 60^\circ\text{C}$ , Pulsed <sup>1</sup>	–	900	1000	
Forward voltage	$V_{op}$	CW	–	2.5	3	V
Slope efficiency	$\eta_s$	$T_c = 25^\circ\text{C}$ , Pulsed <sup>1</sup>	0.08	0.09	–	mW/mA
		$T_c = 60^\circ\text{C}$ , Pulsed <sup>1</sup>	0.06	0.07	–	
Peak wavelength	$\lambda_p$	CW	1630	1650	1670	nm
Spectral Width (RMS)	$\Delta\lambda$	CW	–	–	15	nm
Monitor current	$I_m$	$P_0 = 50\text{mW}$	0.01	–	–	mA

### Note:

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

**F. PHYSICAL DIMENSIONS AND MECHANICAL SPECIFICATION**

Part	Description
Package type	TO-56 Pigtail
Fiber:	SMF-28
MFD	10 $\mu$ m
Cladding diameter	125 $\mu$ m
Coating diameter	245 $\mu$ m
Jacket	900 $\mu$ m loose tube
Fiber pigtail length	>1m
Fiber bending radius	>40mm
Connector	FC/APC
Dimensions	See figure



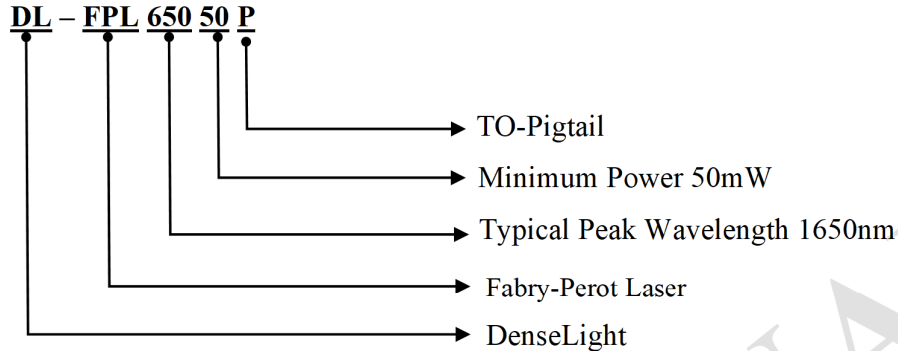
Pin Assignment	Description
1	PD Anode
2	LD Anode
3	LD Cathode
4	PD Cathode, Case

**Device Handling**

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

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## G. PRODUCT NAMING



## H. DISCLAIMER FOR CUSTOMER SPECIFIC APPLICATIONS

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