

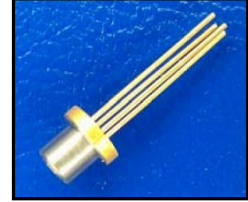
TME-2B83-507

2.5Gbps 1270nm DFB Laser Diode

preliminary

FEATURES:

- Industry standard TO-56 package with aspherical lens cap
- 1270nm typical emission wavelength
- Low threshold current and low operation current.
- Support from DC to 2.5Gbps data rate operation.
- Common anode type



ELECTRO-OPTICAL CHARACTERISTICS : (Tc=25°C, unless otherwise stated)

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Threshold Current	I_{th}		10	15	mA	CW
		5		35		CW, T _C = -40°C ~ 85°C
Forward Voltage	V_f		1.2		V	CW, I _F = I _{th} + 20mA
Slope Efficiency	η	0.32	0.37		mW/mA	CW, I _F = I _{th} + 20mA
		0.22				CW, I _F = I _{th} + 20mA, T _C = 85°C
Peak Wavelength	λ_p	1260	1270	1280	nm	CW, I _F = I _{th} + 20mA, T _C = -40°C ~ 85°C
Side Mode Suppression Ratio	SMSR	35			dB	CW, I _F = I _{th} + 20mA
Rise / Fall Time (20%~80%)	T _r / T _f			150	ps	I _F = I _{th} + 20mA
PD Monitor Current	I _m	100		1000	uA	CW, I _F = I _{th} + 20mA, V _R = 1V
PD Dark Current	I _d			0.1	uA	V _R = 5V
PD Capacitance	C _{PD}		3	10	pF	V _R = 5V @ 1MHz
Focal Length	FL	7.2	7.5	7.8	mm	CW, I _F = I _{th} + 20mA, SMF

ABSOLUTE MAXIMUM RATINGS :

PARAMETERS	MIN	MAX	UNIT	CONDITIONS
Storage Temperature	-40	85	°C	
Operating Temperature	-40	85	°C	
Lead Solder Temperature		260	°C	10 seconds
LD Reverse Voltage		2	V	
PD Reverse Voltage		20	V	
PD forward Current		2	mA	

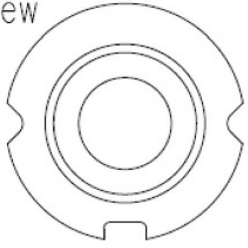
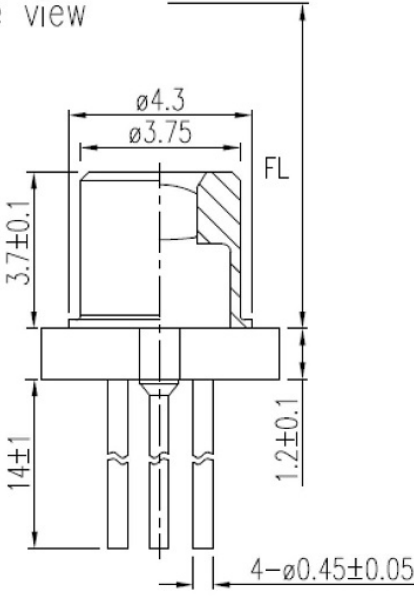
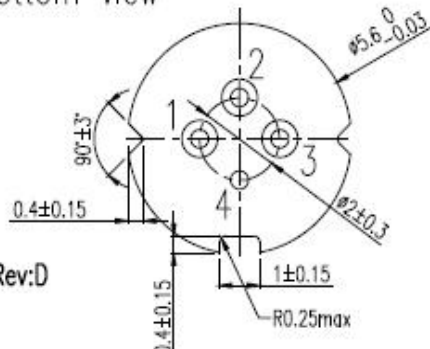
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TrueLight reserves the right to make changes due to the improvement of process and package technology.



Rev2.00

OUTLINE DIMENSIONS: (unit : mm)

Outline Dimensions	TME-2B83-507
Top view  Side view  Bottom view  Rev:D Unit : mm	Focal Length : 7.5 ± 0.3 mm Pin Out (Bottom View) 1: LD Cathode 2: PD Anode 3: LD Anode / PD Cathode 4: CASE

The DFB Laser is a class 1 laser in the safety standard IEC60825-1:2014.

