

TME-3F49-381

10Gbps 1310nm FP Laser Diode

FEATURES:

- Industry standard TO-56 package with 1.5mm ball lens cap
- 1310nm typical emission wavelength
- Low threshold current and low operation current.
- Support from DC to 10.3125Gbps data rate operation.
- Isolation pinout.



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

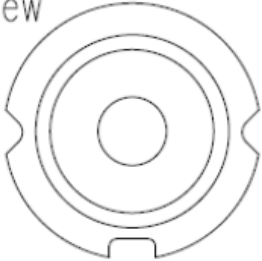
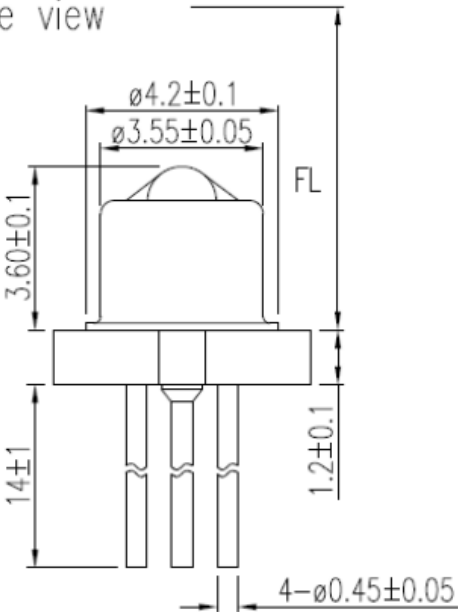
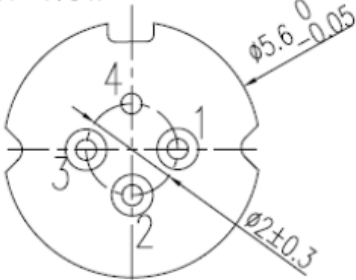
PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Threshold Current	I_{th}	5		9	mA	CW
				25		CW, T _C = 85°C
Forward Voltage	V_f	1.0	1.2	1.4	V	CW, I _F = I _{th} + 20mA
Slope Efficiency	η	0.2		0.3	mW/mA	CW, I _F = I _{th} + 20mA
		0.15				CW, I _F = 20~25mA, T _C = 85°C
Peak Wavelength	λ_p	1300	1310	1320	nm	CW, I _F = I _{th} + 20mA, T _C = 25°C
Spectral Width(RMS)	$\Delta\lambda$		1.2	2	nm	CW, I _F = I _{th} + 20mA
Rise / Fall Time (20%~80%)	T _r / T _f		50	60	ps	10.3125Gbps 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	5.6	5.8	6.0	mm	CW, I _F = I _{th} + 20mA, SMF

ABSOLUTE MAXIMUM RATINGS :

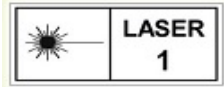
PARAMETERS	MIN	MAX	UNIT	CONDITIONS
Storage Temperature	-40	85	°C	
Operating Temperature	-40	85	°C	
Lead Solder Temperature		260	°C	10 seconds
LD Reverse Voltage		2	V	
LD Forward Current		120	mA	
PD Reverse Voltage		20	V	
PD Forward Current		2	mA	

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OUTLINE DIMENSIONS: (unit : mm)

Outline Dimensions	TME-3F49-381	
Top view  Side view  Bottom view  Rev:E	Focal Length : 5.8 ± 0.2 mm	
	Pin Out (Bottom View)	1: LD Cathode 2: PD Cathode 3: LD Anode 4: PD Anode

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



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



Rev3.00