TME-3B49-301

10Gbps 1310nm DFB Laser Diode

FEATURES:

- Industry standard TO-56 package with 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.

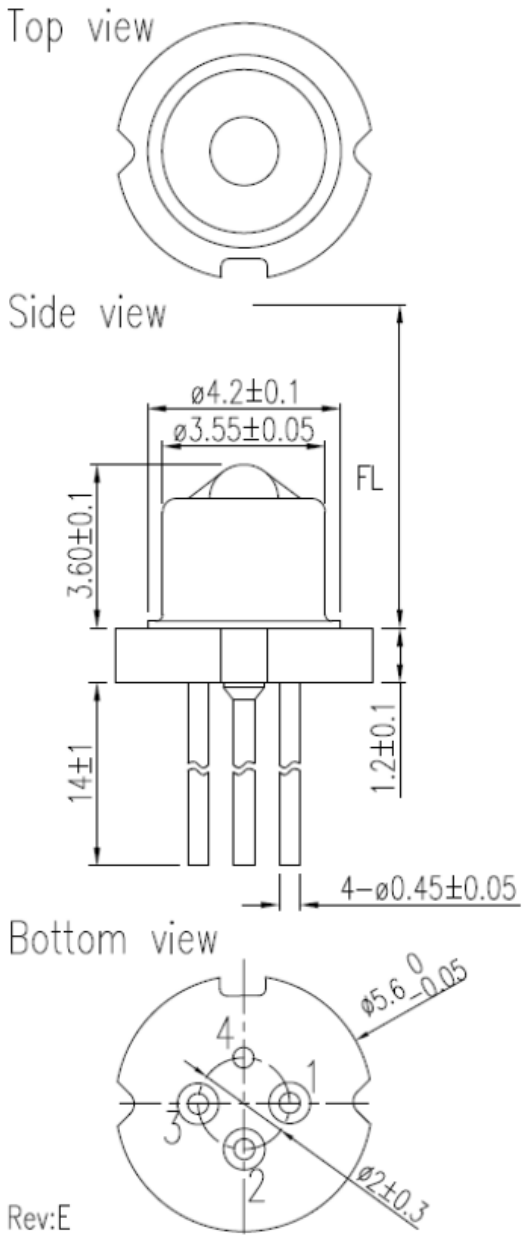
ELECTRO-OPTICAL CHARACTERISTICS : (Tc=25℃, unless otherwise stated)

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Threshold Current	I_{th}		7	15	mA	CW
			20	25		CW,T_A＝85℃
Forward Voltage	V_f	1.0	1.2	1.4	V	CW, I_F=Ith+20mA
Slope Efficiency	η	0.25	0.3		mW/mA	CW, I_F=Ith+20mA
		0.15				CW, I_F=Ith+20mA, T_A＝85℃
Peak Wavelength	λ_P	1300	1310	1320	nm	CW, I_F=Ith+20mA, T_A＝-40℃～85℃
Side Mode Suppression Ratio	SMSR	35			dB	CW, I_F=Ith+20mA
Rise / Fall Time (20%~80%)	Tr / T_f		45	50	ps	10.3125Gbps, I_F=Ith+20mA
PD Monitor Current	I_m	100		1000	uA	CW,I_F=Ith+20mA, V_R=1V
PD Dark Current	I_d			0.1	uA	V_R=5V
PD Capacitance	C_{PD}		5.5	10	pF	V_R=5V @1MHz
Focal Length	FL	5.5	5.8	6.1	mm	CW, I_F=Ith+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	

OUTLINE DIMENSIONS: (unit : mm)

Outline Dimensions	TME-3B49-301	
	Focal Length : 5.8 ± 0.3 mm	
	Pin Out (Bottom View)	1: LD Cathode 2: PD Cathode 3: LD Anode 4: PD Anode

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