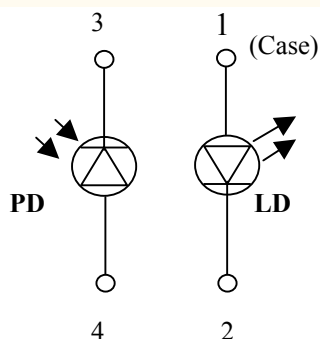
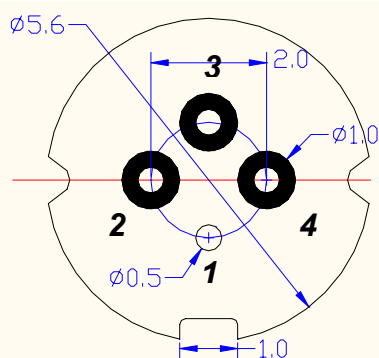
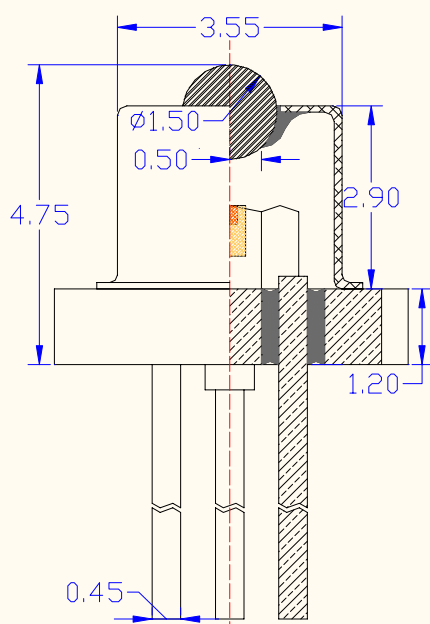




VCSEL/LD Division



Bottom View
Unit: mm

1310nm FPEEL in To-56 Package

1. Feature:

- Low Threshold Current
- Modulation Capability up to 622Mbps
- Wide Operating Temperature Range: -40°C to +85°C

2. Application:

- High-speed data communications and telecommunications applications
- Gigabit Ethernet
- Fiber Channel
- ATM transceiver modules and system

3. Part Number: **LB-TLSF-5BB0**

4. Optical and Electrical Characteristics

Parameter	Symbol	Min.	TYP.	Max.	Unit	Test Condition
Threshold Current	I_{th}		12	17	mA	CW, $\frac{1}{2}$ (dP/dI) peak
Operation Current	I_{op}		27	34	mA	CW, $P_0=5mW$
Operation Voltage	V_{op}		1.15	1.5	V	CW, $P_0=5mW$
Slope Efficiency	η	0.24	0.28		W/A	CW, $P_0=5mW$
Center Wavelength	λ_c	1290	1310	1330	nm	CW, $P_0=5mW$
Spectra Width	$\Delta\lambda$		1.0	3.0	nm	CW, $P_0=5mW$ (FWHM)
Rise / Fall Time	t_r / t_f		120	240	ps	20~80%
Beam Divergence (Full width at half max)	$\Theta_{ }$		8		deg	CW, $P_0=5mW$ (parallel)
Beam Divergence (Full width at half max)	$\Theta_{\perp}$		15		deg	CW, $P_0=5mW$ (perpendicular)
Monitor Output Current (PD)	I_m	0.1	0.3		mA	CW, $P_0=5mW$ $VRD=1V$ $R_L=10\Omega$
Dark Current (PD)	I_d			0.1	μA	$VRD=10V$
Capacitance (PD)	C_t		15	25	pf	$VRD=10V$ $f=1MHz$

5. Maximum Ratings

Parameter	SYMBOL	Min.	Max.	Unit
Optical Output Power	P_0	-	7	mW
Reverse Voltage (LD)	V_{RL}	-	2	V
Reverse Voltage (PD)	V_{RD}	-	20	V
Forward Current (PD)	I_{FD}	-	2	mA
Case Temperature	T_o	-40	+85	°C
Storage Temperature	T_{STG}	-40	+125	°C

Note. These specifications are subject to change without notice.

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