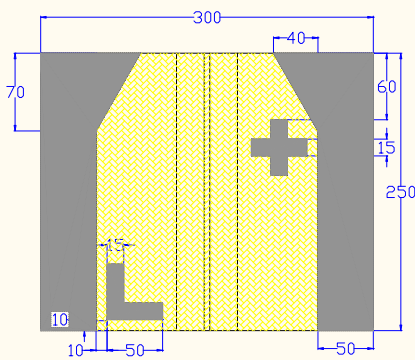




VCSEL/LD Division

Chip: P-side Pattern



Unit: μm

1310 nm FP diode chip specification

1. Feature:

- Low Threshold Current
- Modulation Capability up to 1.25Gbps
- All diode 100% test

2. Application:

- Telecommunications
- Fiber Optic Sensors
- Cable Television
- Fiber Channel
- ATM transceiver modules and system

3. Part Number: LB-CMSF

4. Optical and Electrical Characteristics

Parameter	Symbol	Min.	TYP.	Max.	Unit	Test Condition
Threshold Current	I_{th}		10	15	mA	CW. $\frac{1}{2}$ (dP/dI) Peak
Operation Current	I_{op}		22	30	mA	CW. $P_0=5\text{mW}$
Operation Voltage	V_{op}		1.15	1.5	V	CW. $P_0=5\text{mW}$
Slope Efficiency	η	0.35	0.43		mW/mA	CW. $P_0=5\text{mW}$
Center Wavelength	λ_c	1290	1310	1330	nm	CW. $P_0=5\text{mW}$
Rise / Fall Time	t_r / t_f		80	120	ps	
Spectra Width	$\Delta\lambda$		1	3	nm	CW. $P_0=5\text{mW}$ (FWHM)
Beam Divergence (Full angle at half width)	$\Theta_{ }$		15		deg	CW. $P_0=5\text{mW}$ (parallel)
Beam Divergence (Full angle at half width)	Θ_{\perp}		40		deg	CW. $P_0=5\text{mW}$ (perpendicular)

5. Maximum Ratings

Parameter	Min.	Max.	Unit
Optical Output Power		10	mW
Reverse Voltage (LD)		2	V
Operation Temperature	-40	+85	$^{\circ}\text{C}$
Storage Temperature	-40	+125	$^{\circ}\text{C}$

6. Physical dimension

Parameter	Typ	Unit
Die Length	250	μm
Die Width	300	μm
Die Height	120	μm

Note. These specifications are subject to change without notice.

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