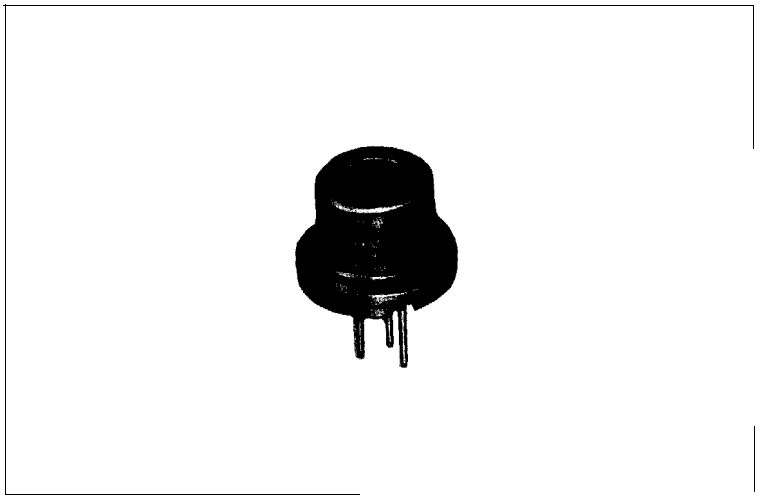
LTO25PD

Features

- Single positive power supply
- High power (maximum optical output: 40mW)
- Wavelength: 780nm
- Single transverse mode

Applications

- Optical disk memories
- Optical memory cards
- Information processing equipment



Absolute Maximum Ratings

(Tc=25°C)

Parameter		Symbol	Ratings	Units
Optical power output		Po	40	mW
Reverse voltage	Laser	V_R	2	V
	PIN		30	
Operating temperature*1		Topr	−10 to +50	°C
Storage temperature*1		Tstg	−40 to +85	°C

*1 Case temperature

Electro-optical Characteristics *1

(Tc=25°C)

Parameter			symbol	Condition	Ratings MIN	Ratings TYP	Ratings MAX	Units
Threshold current			Ith			70	95	mA
Operating current			Iop	Po=30mW		110	145	mA
Operating voltage			Vop	Po=30mW		1.8	2.2	V
Wavelength *2			λp	Po=30mW	770	780	795	nm
Monitor current			Im	Po=30mW, V_R=15V	40	120	250	μA
Radiation characteristics	Angle*3	Parallel to junction	θ//	Po=30mW	8	9.5	13	deg
		Perpendicular to junction	θ⊥	Po=30mW	20	26	38	deg
	Ripple		—	Po=30mW	—	—	±20	%
Emission point accuracy	Angle		Δφ//	Po=30mW	—	—	±2	deg
			Δφ⊥	Po=30mW	—	—	±3	deg
	Position		Δx, Δy, Δz	—	—	—	±80	μm
Differential efficiency			η	20mW / I_F(30mW)−I_F(10mW)	0.4	0.65	0.95	mW/mA

*1 Initial value
*2 Single transverse mode
*3 Angle at 50% peak Intensity (fullwidth at half -maximum)

Electrical Characteristics of Photodiode

(Tc=25°C)

Parameter	symbol	condition	Ratings MIN	Ratings TYP	Ratings MAX	Units
Sensitivity	s	V_R=15V		4	—	μA/mW
Dark current	I_D	V_R=15V			150	nA
Terminal capacitance	Ct	V_R=15V		18		pF