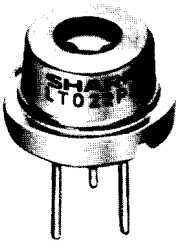
LT022PD

Features

- Uses single positive power supply drive
- Low noise S/N: —60 dB (according to measurement method Fig. 27-2)
- Wavelength 780nm
- Single transverse mode



Applications

- CD players
- CD-ROMs
- Information processing equipment

Absolute Maximum Ratings

(Tc=25°C)

Parameter		Symbol	Ratings	Units
Optical power output		Po	5	mW
Reverse voltage	Laser	V_R	2	V
	PIN		30	
"Operating temperature *'		Topr	−10 to +60	°C
Storage temperature *'		Tstg	−40to +85	°C

* 1 Case temperature

Electro-optical Characteristics *'

(Tc=25°C

Parameter			Symbol	Condition	Ratings MIN	Ratings TYP	Ratings MAX	Units
Threshold current			Ith			50	80	mA
Operating current			Iop	Po=3mW		65	100	mA
Operating voltage			Vop	Po=3mW		1.75	2.2	V
Wavelength**			λp	Po=3mW	770	780	795	nm
Monitor current			Im	Po=3mW V_R=15V		0.4		mA
Radiation characteristics	Angle*3	Parallel to junction	θ//	Po=3mW	8	11	16	deg
		Perpendicular to junction	θ⊥	Po=3mW	25	35	48	deg
	Ripple			Po=3mW			±20	%
Emission point accuracy	Angle		Δφ//	Po=3mW			±2	deg
			Δφ⊥	Po=3mW			±3	deg
	Position		Δx, Δy, Δz				±80	μm
Differential efficiency			η	2mW / I_F(3mW)−I_F(1mW)	0.11	0.25	0.6	mW/mA

* 1 Initial value
*2 Single transverse mode
*3 Angle at 50% peak intensity (full width at halt-maximum)

Electrical Characteristics of Photodiode

(Tc=25°C)

Parameter	Symbol	Condition	Ratings MIN	Ratings TYP	Ratings MAX	Units
Sensitivity	s	V_R=15V		013		mA/mW
Dark current	I_D	V_R=15V			150	nA
Terminal capacitance	Ct	v~=15V		18	—	pF