

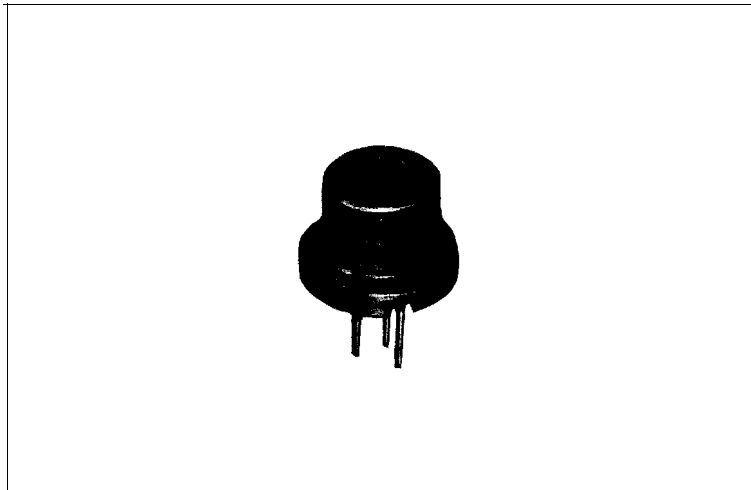
LTO24ED

Features

- High power (maximum optical power output: 35mW)
- Low noise: S/N -80 dB at superposed high frequency (according to measurement method Fig. 27-2)
- Wavelength: 780nm
- Single transverse mode

Applications

- Optical disk memories
- Information processing equipment



Absolute Maximum Ratings

(Tc = 25°C)

Parameter	Symbol	Ratings	Units
Optical power output	P _o	35	mW
Reverse voltage	Laser	2	V
	PIN	30	
Operating temperature *1	T _{opr}	-10 to +60	°C
Storage temperature *1	T _{stg}	-40 to +85	°C

*1 Case temperature

Electro-optical Characteristics **

Tc = 25°C

Parameter	Symbol	condition	MIN	atings		Units
				TYP	MAX	
Threshold current	I _{th}	---		60	85	mA
Operating current	I _{op}	P _o = 30mW		115	150	mA
Operating voltage	V _{op}	P _o = 30mW		1.8	2.2	V
Wavelength**	λ _p	P _o = 30mW	770	780	795	nm
Monitor current	I _m	P _o = 30mW V _R = 15V	0.25	0.9	1.5	mA
Radiation characteristics	Angle *3	Parallel to junction	8	9.5	13	deg
		Perpendicular to junction	20	26	32	deg
	Ripple				±20	%
Emission point accuracy	Angle	Δφ _{//}			±2	deg
		Δφ _⊥			±3	deg
Differential efficiency	Position	Ax, Δy, Az			±80	μm
		η	20mW I _r (30mW) - I _r (10mW)	0.3	0.55	0.8

*1 Initial value

*3 Angle at 50% peak intensity (full width at half-maximum)

*2 Single transverse mode

Electrical Characteristics of Photodiode

(Tc = 25°C)

Parameter	Symbol	Condition	Ratings			Units
			MIN	TYP	MAX	
Sensitivity	S	V _R = 15V	---	30	---	mA/mW
Dark current	I _D	V _R = 15V	---	---	150	nA
Terminal capacitance	C _t	V _R = 15V	---	5	---	pF