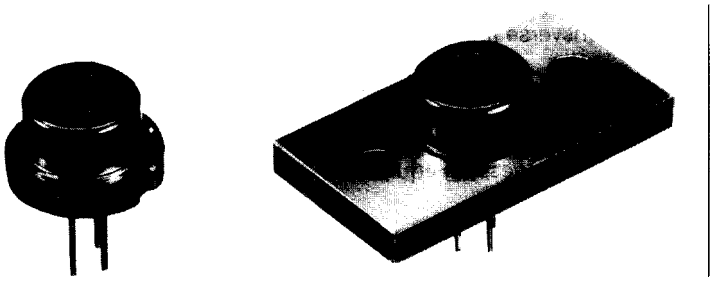
LTO25MD/LTO25MF

Features

- High power (maximum optical power 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
Reverse voltage — PIN	V_R	**30**	v
Operating temperature *1	Topr	−10 to +50	°c
Storage temperature *1	Tstg	−40 to +85	°c

*1 Case temperature

Electro-optical Characteristics *'

(Tc = 25°(

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*'			λp	Po=30mW	770	780	795	nm
Monitor current			Im	Po=30mW V_R=15V	75	240	450	μA
Radiation characteristics	Angle*3	Parallel to junction	θ //	Po=30mW	8	9.5	13	deg
		Perpendicular to junction	θ⊥	Po=30mW	20	26	32	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
*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 MIN	Ratings TYP	Ratings MAX	Units
Sensitivity	s	V_R=15V		8		μA/mW
Dark current	ID	V_R=15V			150	nA
Terminal capacitance	Ct	V_R=15V		8	20	pF