

LT024MD/MF

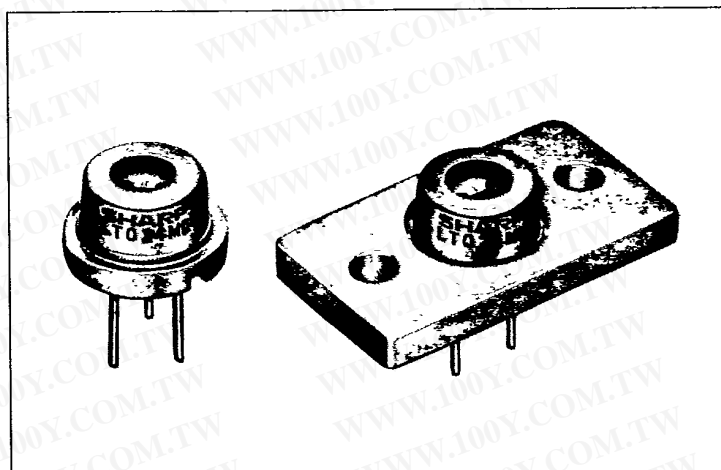
Features

- High power (maximum optical power output: 30 mW)
- Wavelength: 780nm
- Single transverse mode

Applications

- Optical disk memories
- Information processing equipment

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



Absolute Maximum Ratings

(Tc=25°C)

Parameter	Symbol	Ratings	Units
Optical power output	Po	30	mW
Reverse voltage	Laser	2	V
	PIN	30	
Operating temperature*1	Topr	-10~+50	°C
Storage temperature*1	Tstg	-40~+85	°C
Soldering temperature*2	Tsol	260 (less than 5 seconds)	°C

*1 Case temperature *2 At point 1.6 mm from lead base

Electro-optical Characteristics*1

(Tc=25°C)

Parameter	Symbol	Condition	Ratings			Units	
			MIN	TYP	MAX		
Threshold current	Ith	—	—	55	80	mA	
Operating current	Iop	Po=20mW	—	85	120	mA	
Operating voltage	Vop	Po=20mW	—	1.85	2.2	V	
Wavelength*2	λp	Po=20mW	765	780	795	nm	
Monitor current	Im	Po=20mW VR=15V	50	160	500	μA	
Radiation characteristics	Angle*3	Parallel to junction	$\theta //$	8	10	14	deg
		Perpendicular to junction	$\theta \perp$	20	29	38	deg
	Ripple			—	—	± 20	%
Emission point accuracy	Angle		$\Delta\phi //$	—	—	± 2	deg
			$\Delta\phi \perp$	—	—	± 3	deg
	Position*4		$\Delta x, \Delta y, \Delta z$	—	—	± 80	μm
Differential efficiency	η		$\frac{10mW}{I_F(20mW) - I_F(10mW)}$	0.5	0.75	1.1	mW/mA

*1 Initial value

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

*2 Single transverse mode

*4 Not specified for LT024MF

Electrical Characteristics of Photodiode

(Tc=25°C)

Parameter	Symbol	Condition	Ratings			Units
			MIN	TYP	MAX	
Sensitivity	S	VR=15V	—	8	—	$\mu A/mW$
Dark current	Id	VR=15V	—	—	150	nA
Terminal capacitance	Ct	VR=15V	—	8	20	pF