

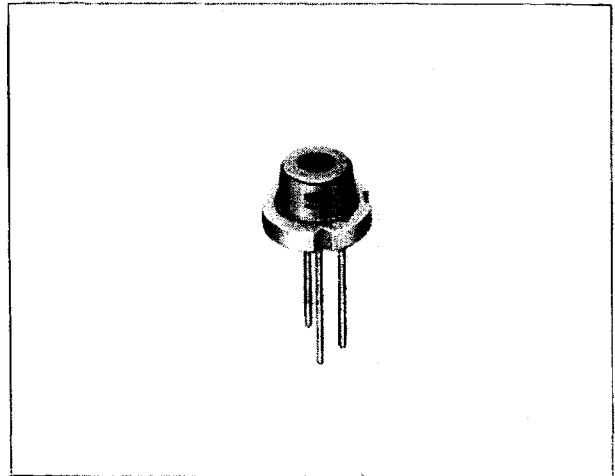
LT022MS

Features

- Compact (diameter: 5.6 mm)
- 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

(T_c = 25°C)

Parameter	Symbol	Ratings	Units
Optical power output	P _o	5	mW
Reverse voltage	V _R	Laser	2
		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*¹

(T_c = 25°C)

Parameter	Symbol	Condition	Ratings			Units	
			MIN	TYP	MAX		
Threshold current	I _{th}	---	---	45	60	mA	
Operating current	I _{op}	P _o = 3mW	---	55	75	mA	
Operating voltage	V _{op}	P _o = 3mW	---	1.75	2.0	V	
Wavelength* ²	λ _p	P _o = 3mW	770	780	795	nm	
Monitor current	I _m	P _o = 3mW V _R = 15V	0.12	0.4	0.85	mA	
Radiation characteristics	Angle* ³	Parallel to junction	θ _∥	8.5	11	16	deg
		Perpendicular to junction	θ _⊥	29	35	48	deg
	Ripple					±20	%
Emission point accuracy	Angle		Δφ _∥			±2	deg
			Δφ _⊥			±3	deg
	Position		Δx, Δy, Δz			±80	μm
Differential efficiency	η	2mW I _f (3mW) - I _f (1mW)	0.15	0.3	0.5	mW/mA	

*¹ Initial value

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

*² Single transverse mode

Electrical Characteristics of Photodiode

(T_c = 25°C)

Parameter	Symbol	Condition	Ratings			Units
			MIN	TYP	MAX	
Sensitivity	S	V _R = 15V	---	0.13	---	mA/mW
Dark current	I _D	V _R = 15V	---	---	150	nA
Terminal capacitance	C _t	V _R = 15V	---	3.5	10	pF