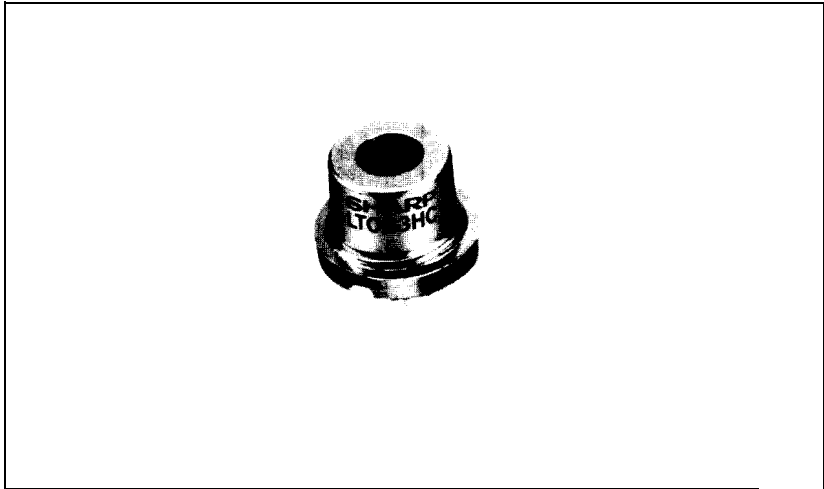


Features

- Wide temperature range (-30°C to +85°C)
- Low noise
S/N: -80 dB (measurement method Fig.27-2)
- Wavelength, 780nm
- Single transverse mode
- Multi longitudinal mode

Applications

- Video disc players
- Fiber optic communications
- Light source for analog processing
- Measurement Instruments
- Analysis Instruments



Absolute Maximum Ratings

(Tc = 25°C)

Parameter	Symbol	Ratings	Units
Optical power output	P _o	5	mW
Reverse voltage	V _R	Laser	2
		PIN	30
Operating temperature*	T _{opr}	-30 to +85	°C
Storage temperature *1	T _{stg}	-40 to +100	°C

*1 Case temperature

Electro-optical Characteristics **

(Tc = 25°C)

Parameter	Symbol	Condition	Ratings			Units
			MIN	TYP	MAX	
Threshold current	I _{th}			50	90	mA
Operating current	I _{op}	P _o = 3mW		65	110	mA
Operating voltage	V _{op}	P _o = 3mW		1.75	2.2	v
Wavelength**	λ _p	P _o = 3mW	770	780	795	nm
Monitor current	I _m	P _o = 3mW V _R = 15V	0.3	0.9	1.6	mA
Radiation characteristics	Angle *3	Parallel to junction	9	11	16	deg
		Perpendicular to junction	20	37	48	deg
	Ripple	W			±20	%
Emission point accuracy	Angle	Δφ	W		±2	deg
		Δφ _⊥	W		±3	deg
	Position 4	Δx, Δy, Δz			±80	μm
Differential efficiency	η	I _r (3mW) - I _r (1mW)	0.11	0.25	0.6	mW/mA
Coherence	γ	P _o = 3mW			0.47	

*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		0.3		mA/mW
Dark current	I _d	V _R = 15V			250	nA
Terminal capacitance	C _t	V _R = 15V		8	20	pF