

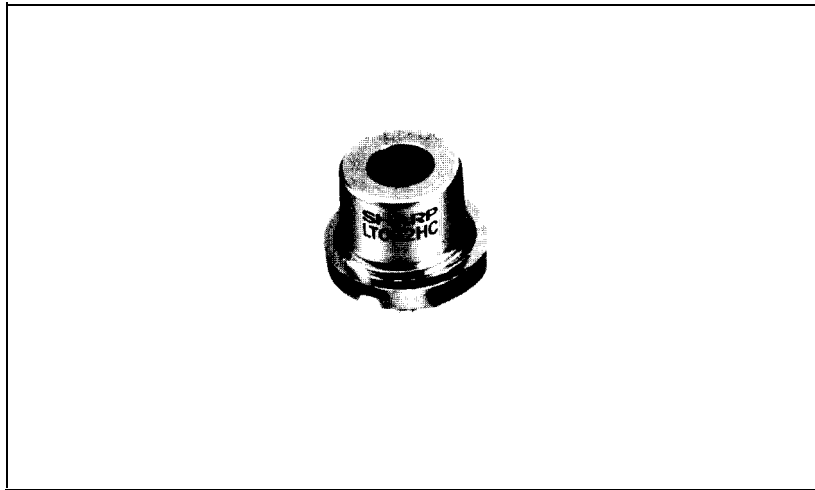
# LT022HC

## Features

- Wide temperature range
- Low noise S/ N: -60 dB (according to measurement method Fig. 27-2)
- Wavelength: 780nm
- Single transverse mode

## Applications

- CD-ROMs
- CD players
- Information processing equipment



## Absolute Maximum Ratings

(Tc=25°C)

Parameter	Symbol	Ratings	Units
Optical power output	Po	5	mW
Reverse voltage	V <sub>R</sub>	2	V
	Laser PIN	30	
Operating temperature*1	Topr	-30 to +85	°C
Storage temperature*1	Tstg	-40 to +100	°C

\*1 Case temperature

## Electro-optical Characteristics \*\*

Tc=25°C

Parameter	Symbol	Condition	Ratings			Units
			MIN	TYP	MAX	
Threshold current	I <sub>th</sub>			50	80	mA
Operating current	I <sub>op</sub>	Po=3mW		65	100	mA
Operating voltage	V <sub>op</sub>	Po=3mW		1.5	2.0	V
Wavelength **	λ <sub>p</sub>	Po=3mW	770	780	795	nm
Monitor current	I <sub>m</sub>	Po=3mW V <sub>R</sub> =15V	0.3	0.7	1.6	mA
Radiation characteristics	Angle*3	Parallel to junction	8.5	11	16	deg
		Perpendicular to junction	20	33	45	deg
	Ripple	Po=3mW			±20	%
Emission point accuracy	Angle	Po=3mW			±2	deg
		Po=3mW			±3	deg
	Position	Po=3mW			±80	μm
Differential efficiency	η	2mW I <sub>F</sub> (3mW) - 1, (1 mW)	0.15	0.25	0.6	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			Units
			MIN	TYP	MAX	
Sensitivity	S	V <sub>R</sub> =15V		0.3		mA/mW
Dark current	I <sub>D</sub>	V <sub>R</sub> =15V			250	nA
Terminal capacitance	C <sub>t</sub>	V <sub>R</sub> =15V		8	20	pF