

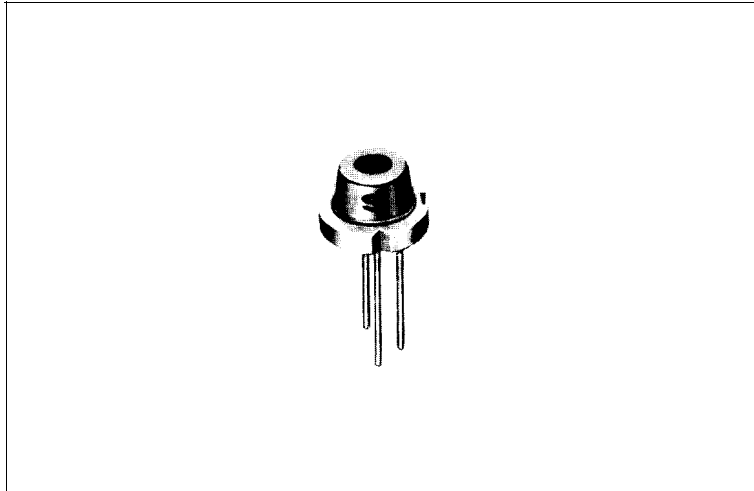
# LTO28GS

## Features

- Small astigmatic distance (less than  $10\mu\text{m}$ )
- Low droop rate (10% TYP.)
- Wavelength: 780nm
- Single transverse mode

## Applications

- General purpose laser printers
- Information processing equipment



## Absolute Maximum Ratings

( $T_c = 25^\circ\text{C}$ )

Parameter	symbol	Ratings	Units
Optical power output	Po	5	mW
Reverse voltage	Laser	2	v
	PIN	30	
Operating temperature **	Topr	-10 to +60	°c
Storage temperature **	Tstg	-40 to +85	°C

\* 1 Case temperature

## Electro-optical Characteristics \*\*

( $T_c = 25^\circ\text{C}$ )

Parameter	Symbol	Condition	Ratings			Units		
			MIN	TYP	MAX			
Threshold current	Ith			35	50	mA		
Operating current	Iop	Po=3mW		45	60	mA		
Operating voltage	Vop	Po=3mW		1.75	2.2	v		
Wavelength**	$\lambda_p$	Po=3mW	770	780	795	nm		
Monitor current	Im	Po=3mW VR=15V	0.3	0.6	1.5	mA		
Radiation characteristics	Angle	Parallel to junction	$\theta_{//}$	Po=3mW	8	11	14	deg
		Perpendicular to junction	$\theta_{\perp}$	Po=3mW	20	29	36	deg
	Ripple		Po=3mW			$\pm 35$	%	
Emission point accuracy	Angle		$\Delta\phi_{//}$	Po=3mW			$\pm 2$	deg
			$\Delta\phi_{\perp}$	Po=3mW			* 3	deg
	Position		Ax, Ay, Az				$\pm 80$	$\mu\text{m}$
Differential efficiency	$\eta$	2mW If(3mW)-If(1mW)		0.2	0.3	0.4	mW/mA	
Astigmatic distance**	$\Delta\text{As}$	Po=3mW				10	$\mu\text{m}$	
Droop rate**	$\Delta P$	Po=3mW				10	%	

\* 1 Initial value

\* 2 Single transverse mode

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

\* 4 According to measurement method Fig. 27-1

\* 5 According to measurement method Fig. 29-1

## Electrical Characteristics of Photodiode

( $T_c = 25^\circ\text{C}$ )

Parameter	symbol	Condition	Ratings			Units
			MIN	TYP	MAX	
Sensitivity	s	VR=15V		0.2		mA/mW
Dark current	ID	VR=15V			150	nA
Terminal capacitance	Ct	VR=15V		9		pF