

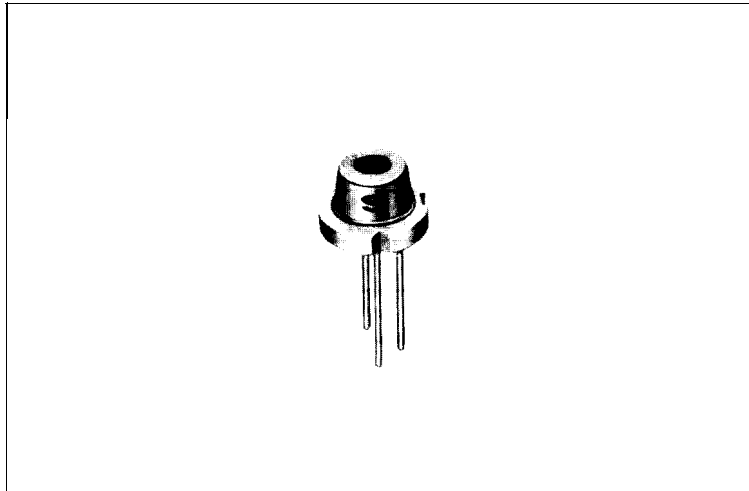
# LT026MS

## Features

- .Small astigmatic distance  
(less than 10  $\mu\text{m}$ )
- .Compact (diameter: 5.6mm)
- .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	$P_o$	5	mW
Reverse voltage	$V_R$	2	v
		30	
Operating temperature *1	$T_{opr}$	-10 to +60	$^\circ\text{C}$
Storage temperature *1	$T_{stg}$	-40 to +85	$^\circ\text{C}$

\* 1 Case temperature

## Electro-optical Characteristics \*\*

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

Parameter	Symbol	condition	Ratings			Units		
			MIN	TYP	MAX			
Threshold current	$I_{th}$			4.0	1.7	0	mA	
Operating current	$I_{op}$	$P_o = 3\text{mW}$		50	80		mA	
Operating voltage	$V_{op}$	$P_o = 3\text{mW}$		1.75	2.2		v	
Wavelength *2	$\lambda_p$	$P_o = 3\text{mW}$		770	780	795	nm	
Monitor current	$I_m$	$P_o = 3\text{mW}$ $V_R = 15\text{V}$		0.4			mA	
Radiation characteristics	Angle *3	Parallel to junction	$\theta_{//}$	$P_o = 3\text{mW}$	8	11	16	deg
		Perpendicular to junction	$\theta_{\perp}$	$P_o = 3\text{mW}$	20	29	36	deg
Ripple		$P_o = 3\text{mW}$				$\pm 20$	%	
Emission point accuracy	Angle		$\Delta\phi_{//}$	$P_o = 3\text{mW}$			$\pm 2$	deg
			$\Delta\phi_{\perp}$	$P_o = 3\text{mW}$			$\pm 3$	deg
Position			$\Delta x, \Delta y, \Delta z$			$\pm 80$	$\mu\text{m}$	
Differential efficiency	$\eta$	$\frac{2\text{mW}}{I_f(3\text{mW}) - I_f(1\text{mW})}$		0.3			mW/mA	

\* 1 Initial value

\* 2 Single transverse mode

\* 3 Angle at 500% peak intensity (full width at half-maximum)

## Electrical Characteristics of Photodiode

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

Parameter	Symbol	Condition	Ratings			Units
			MIN	TYP	MAX	
Sensitivity	S	$V_R = 15\text{V}$		0.13		mA/mW
Dark current	$I_D$	$V_R = 15\text{V}$			150	nA
Terminal capacitance	$C_t$	$V_R = 15\text{V}$		3.5		pF