

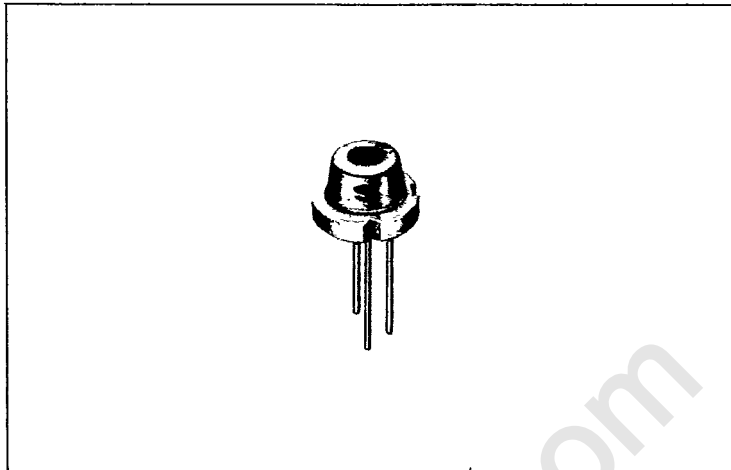
LT026PS

Features

- Small astigmatic distance (less than 10 μm)
- Compact (diameter: 5.6mm)
- Wavelength: 780nm
- Single transverse mode

Applications

- General purpose laser printers
- Information processing equipment



Absolute Maximum Ratings

(Tc=25°C)

Parameter	Symbol	Ratings	Units
Optical power output	Po	5	mW
Reverse voltage	VR	Laser	2
		PIN	30
Operating temperature*1	Topr	-10 ~ +60	°C
Storage temperature*1	Tstg	-40 ~ +85	°C
Soldering temperature*2	Tsol	260 (less than 5 seconds)	°C

*1 Case temperature *2 At point 1.6 mm from lead base

Electro-optical Characteristics*1

(Tc=25°C)

Parameter	Symbol	Condition	Ratings			Units		
			MIN	TYP	MAX			
Threshold current	Ith	—	—	40	70	mA		
Operating current	Iop	Po=3mW	—	50	80	mA		
Operating voltage	Vop	Po=3mW	—	1.75	2.2	V		
Wavelength*2	λ_p	Po=3mW	770	780	795	nm		
Monitor current	Im	Po=3mW VR=15V	—	0.2	—	mA		
Radiation characteristics	Angle*3	Parallel to junction	$\theta_{//}$	Po=3mW	8	11	16	deg
		Perpendicular to junction	θ_{\perp}	Po=3mW	20	29	36	deg
	Ripple		Po=3mW	—	—	±20	%	
Emission point accuracy	Angle	$\Delta\phi_{//}$	Po=3mW	—	—	±2	deg	
		$\Delta\phi_{\perp}$	Po=3mW	—	—	±3	deg	
	Position	$\Delta x, \Delta y, \Delta z$	—	—	—	±80	μm	
Differential efficiency	η	$\frac{2\text{mW}}{I_F(3\text{mW}) - I_F(1\text{mW})}$	—	0.3	—	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	VR=15V	—	0.07	—	mA/mW
Dark current	ID	VR=15V	—	—	150	nA
Terminal capacitance	Ct	VR=15V	—	9	—	pF

LT026 Series Characteristics Diagrams

Fig. 76-1 Forward Current vs. Forward Voltage

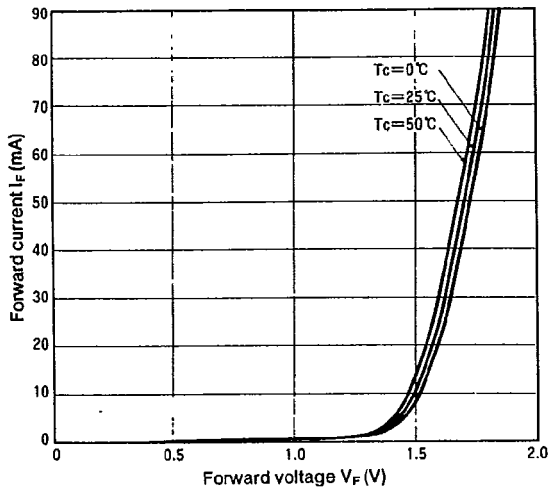


Fig. 76-4 Wavelength vs. Temperature

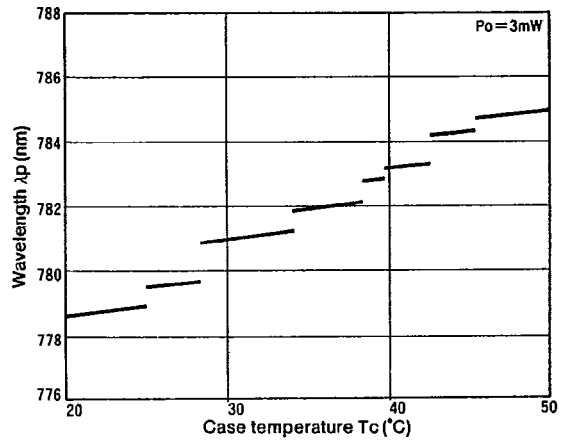


Fig. 76-2 Optical Power Output vs. Forward Current and Monitor Current

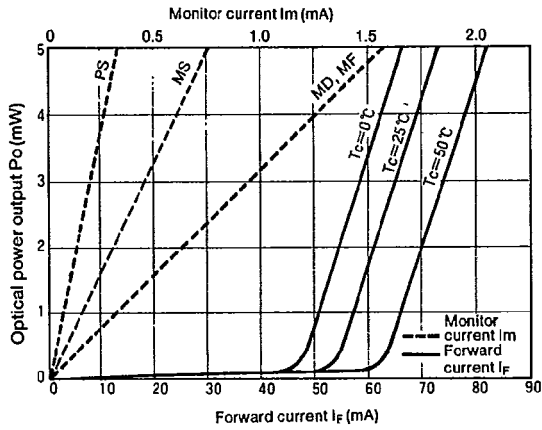


Fig. 76-5 Optical Power Output Dependence of Wavelength

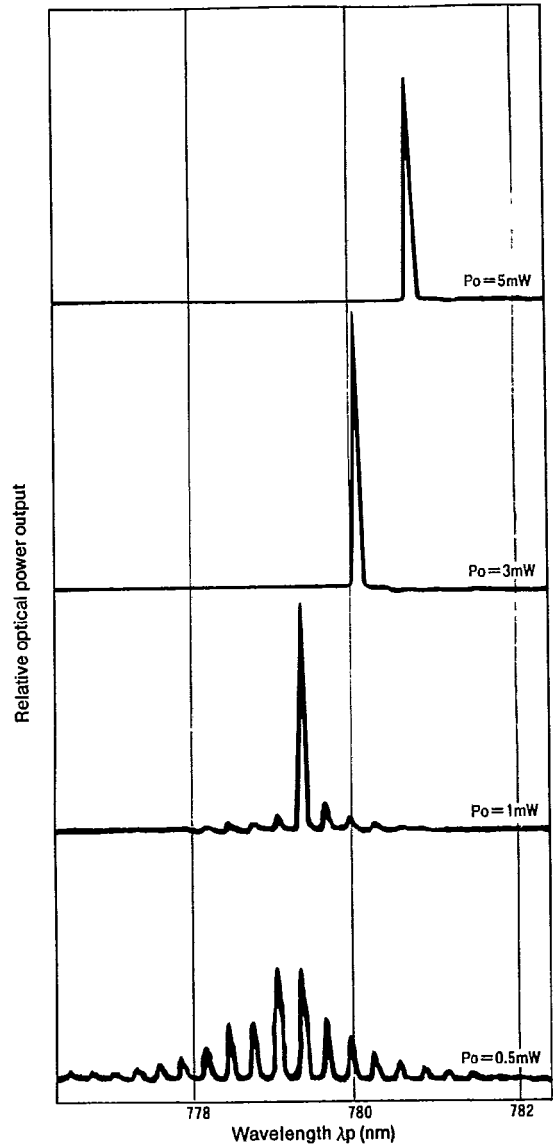
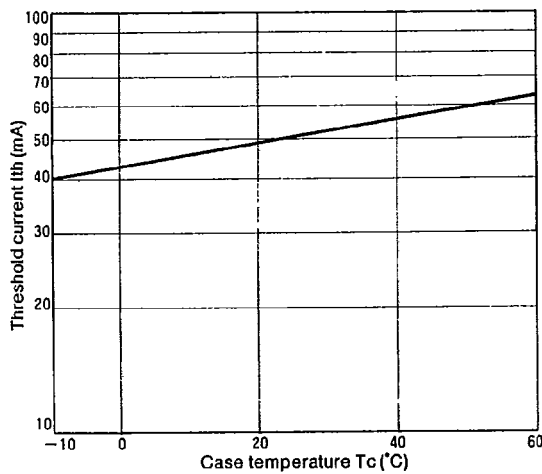


Fig. 76-3 Threshold Current vs. Temperature



Note. All data on this page is typical only, and is not intended as a specification. The shapes of these curves can be used as a general reference, but the actual characteristics will vary from device to device.

Outline Dimensions

Unit: mm

Fig. 98-1 Standard Type (C Type)

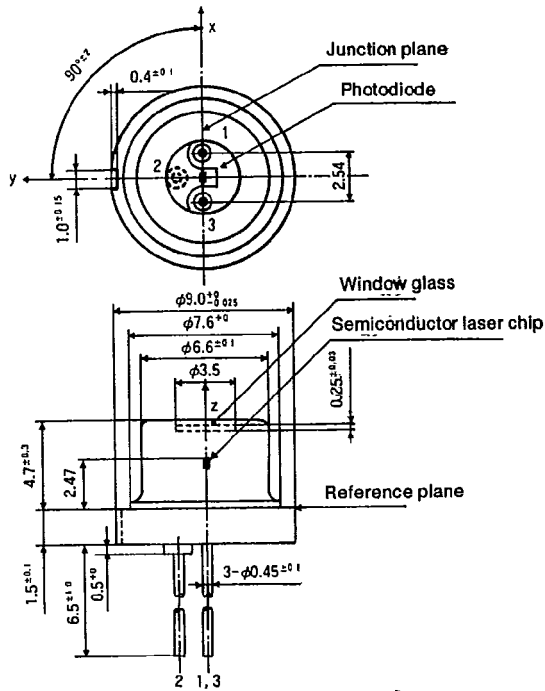


Fig. 98-2 Low-Cap Type (D Type)

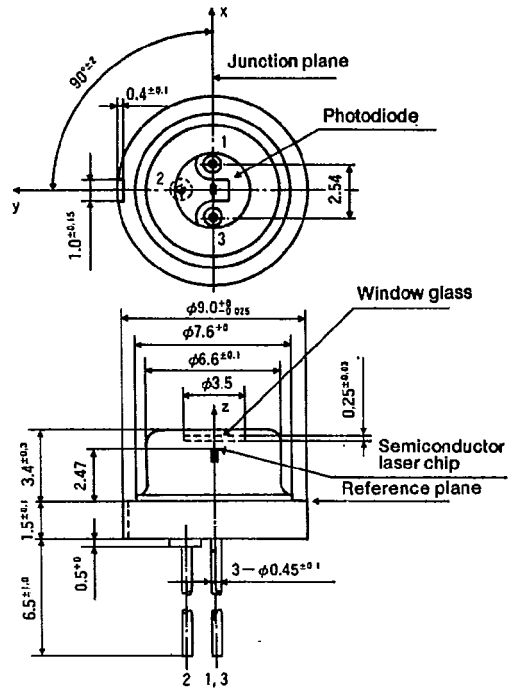


Fig. 98-3 Fin-Equipped Type (F Type)

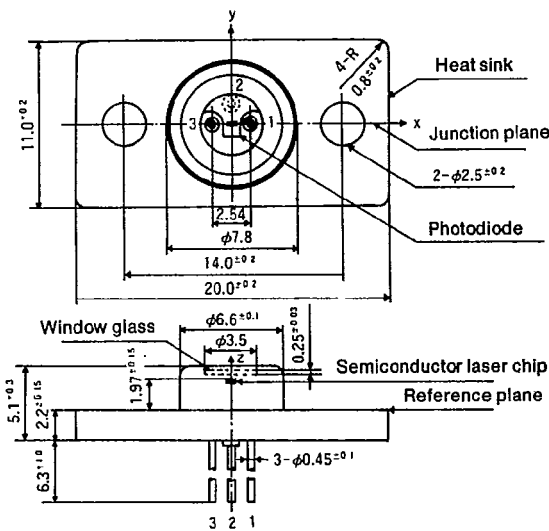
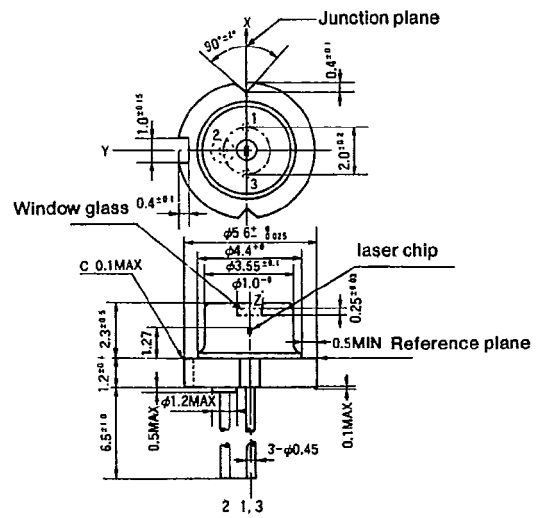


Fig. 98-4 Compact Package Type (S Type)



Terminal connections

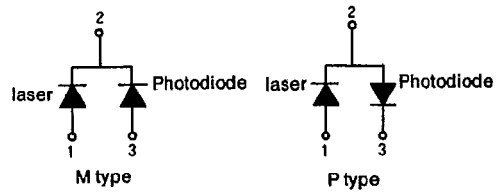


Fig. 99-1 Two-channel Laser Diode (LT091MD)

Terminal connections

