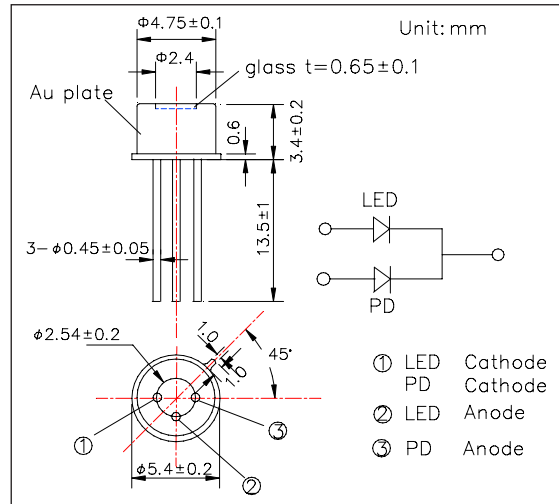


**LN850/PD010-40D52**

Metal Can Sealed PD Monitoring High Power LED

LN850/PD010-40D52 consists of a GaAIAs LED 850nm and a Si-PD mounted on TO-18 stem hermetically sealed with a glass flat can. It is designed to monitor reflected light through detector for controlling its own output power.

Outer Dimension (Unit:mm)



<Specifications>

1. Product Name: LED Lamp with PD Monitor
2. Type Number: LN850/PD010-40D52
3. Chip:
  - Chip Material: GaAIAs and Si(PIN)
  - Peak Wavelength: 850nm
4. Package
  - Stem: TO-18
  - Lens:  $\Phi 2.4$  Flat Glass
  - Can: Metal Can (Gold Plate)

Absolute Maximum Ratings [Ta=25°C]				
Device	Item	Symbol	Maximum Rated Value	Unit
LED	Power Dissipation	PD	160	mW
LED	Forward Current	IF	100	mA
LED	Pulse Forward Current*	IFP	1000	mA
LED	Reverse Voltage	VR	5	V
PD	Reverse Voltage	VR	100	V
	Operating Temperature	TOPR	-30 ~ +85	°C
	Storage Temperature	TSTG	-30 ~ +100	°C
	Soldering Temperature**	TSOL	260	°C

\* Duty=1% and tw=10us

\*\* Soldering condition must be completed within 3 seconds at 260°C

Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.5	1.7	V
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=50mA	3.0	6.0		mW
Radiant Intensity**	IE	IF=50mA	2.5	5.0		mW/sr
Peak Wavelength	$\lambda P$	IF=50mA	840	850	860	nm
Half Width	$\Delta\lambda$	IF=50mA		35		nm
Viewing Half Angle	$\theta 1/2$	IF=50mA		$\pm 55$		deg
Rise Time	tr	IF=50mA		60		ns
Fall Time	tf	IF=50mA		40		ns
Output Current	IL	VR=0V	130	270		uA
Dark Current	ID	VR=10V			10	nA

\* Measured by Photodyne #500

\*\* Measured by Tektronix J-6512

