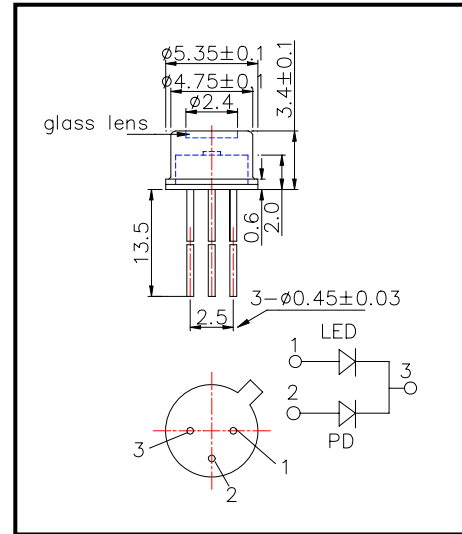


L850/PD010-40D52

(L850/PD010-40D52) PD monitoring high power LED

L850/PD010-40D52 consists of a GaAlAs LED 850nm and a Si-PD mounted on TO-18 stem hermetically sealed with a glass flat can, and 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 No. | L850/PD010-40D52 |
| 3) Chip | |
| (1) Chip material | GaAlAs and Si(PIN) |
| (2) Peak wavelength | 850nm |
| 4) Package | |
| (1) Stem | φ5mm TO-18 |
| (2) Lens | Metal Can (Gold Plate) |

◆ Absolute Maximum Ratings [Ta=25°C]

Device	Item	Symbol	Maximum Rated	Unit
LED	Power Dissipation	P _D	150	mW
LED	Forward Current	I _F	100	mA
LED	Pulse Forward Current	I _{FP}	1000	A
LED	Reverse Voltage	V _R	5	V
PD	Reverse Voltage	V _R	100	V
	Operating Temperature	T _{OPR}	-20 ~ +85	°C
	Storage Temperature	T _{STG}	-30 ~ +100	°C
	Soldering Temperature	T _{SOL}	260	°C

‡Soldering condition: Soldering condition must be completed within 3 seconds at 250°C

◆ Electro-Optical Characteristics [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =50mA		1.45	1.70	V
Reverse Current	I _R	V _R =5V			10	μA
Total Radiated Power	P _O	I _F =50mA	3.0	6.0		mW
Radiant Intensity	I _E	I _F =50mA	2.5	5.0		mW/sr
Peak Wavelength	λ _P	I _F =50mA	840	850	860	nm
Half Width	Δλ	I _F =50mA		40		nm
Viewing Half Angle	θ _{1/2}	I _F =50mA		±55		deg.
Rise Time	t _r	I _F =50mA		15		ns
Fall Time	t _f	I _F =50mA		10		ns
Output Current	I _L	V _R =0V	150	270		μA
Dark Current	I _D	V _R =10V			10	nA

‡Total Radiated Power is measured by Photodyne #500