



LED890/PD010-40D52

metal can sealed PD monitoring high power LED LED890/PD010-40D52 consists of a GaAlAs LED 890nm 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

Product Name LED Lamp with PD Monitor

Type No. LED890/PD010-40D52

Chip

Chip material GaAlAs, Si (PIN)

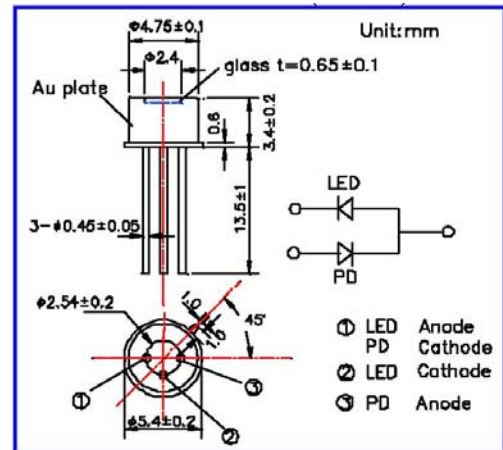
Peak wavelength 890 nm

Package

Stem TO-18

Lens f2.4 Flat Glass

Can 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	uA
Total Radiated Power	P _O	I _F =50mA	2.5	5.0		mW
Radiant Intensity	I _E	I _F =50mA	2.0	4.0		mW/sr
Peak Wavelength	I _P	I _F =50mA		890		nm
Half Width	DI	I _F =50mA		50		nm
Viewing Half Angle	Q _{1/2}	I _F =50mA		±40		deg.
Rise Time	t _r	I _F =50mA		800		ns
Fall Time	t _f	I _F =50mA		400		ns
Output Current	I _L	V _R =0V	130	260		uA
Dark Current	I _D	V _R =10V			10	nA

‡Total Radiated Power is measured by Photodyne #500