



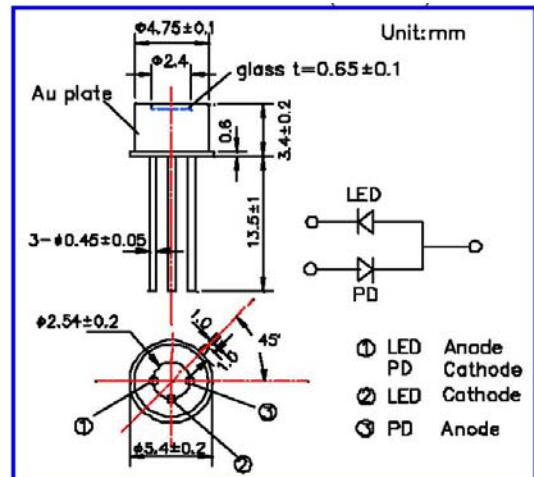
## LED810/PD010-40D52

metal can sealed PD monitoring high power LED LED810/PD010-40D52 consists of a GaAlAs LED 810 nm 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. LED810/PD010-40D52  
 Chip  
 Chip material GaAlAs , Si ( PIN )  
 Peak wavelength 810 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	PD	170	mW
LED	Forward Current	IF	100	mA
LED	Pulse Forward Current	IFP	500	A
LED	Reverse Voltage	VR	5	V
PD	Reverse Voltage	VR	100	V
	Operating Temperature	TOPR	-20 ~ +85	°C
	Storage Temperature	TSTG	-30 ~ +100	°C
	Soldering Temperature	TSOL	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	VF	IF=50mA		1.70	2.00	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	IP	IF=50mA		810		nm
Half Width	DI	IF=50mA		35		nm
Viewing Half Angle	Q1/2	IF=50mA		±55		deg.
Rise Time	tr	IF=50mA		60		ns
Fall Time	tf	IF=50mA		40		ns
Output Current	IL	VR=0V	125	250		uA
Dark Current	ID	VR=10V			10	nA

‡Total Radiated Power is measured by Photodyne #500