



LED780-PD010-40D52



LED780-PD010-40D52 consists of a GaAlAs LED 780 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.

Specifications

Product Name: LED Lamp with PD Monitor

Type No.: LED780-PD010-40D52

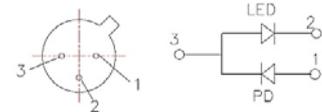
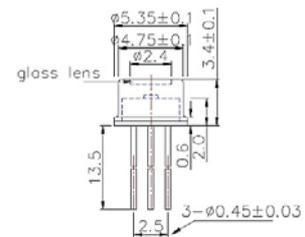
Chip material: GaAlAs, Si (PIN)

Peak wavelength: 780 nm

Package: Stem TO-18

Lens: Ø5.24 Flat Glass

Can: Metal Can (Gold Plate)



Unit: mm

Absolute Maximum Ratings [Ta=25°C]

Device	Item	Symbol	Maximum Rated	Unit
LED	Power Dissipation	P_D	200	mW
LED	Forward Current	I_F	100	mA
LED	Pulse Forward Current	I_{FP}	500	A
LED	Reverse Voltage	V_R	5	V
PD	Reverse Voltage	V_R	100	V
	Operating Temperature	T_{CASE}	-20 ~ +85	°C
	Storage Temperature	T_{STG}	-30 ~ +100	°C
	Soldering Temperature	T_{SLD}	260	°C

Pulse Forward Current condition: Duty = 1%, $t_w = 10 \mu s$

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

Electro-Optical Characteristics [Ta=25°C]

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	IF=50mA		1.70	2.00	V
Reverse Current	I_R	VR=5V			10	uA
Total Radiated Power	P_O	IF=50mA	3.0	6.0		mW
Radiant Intensity	I_E	IF=50mA	2.5	5.0		mW/sr
Peak Wavelength	λ_P	IF=50mA	765	780	795	nm
Half Width	$\Delta\lambda$	IF=50mA		35		nm
Viewing Half Angle	φ	IF=50mA		±55		deg.
Rise Time	t_R	IF=50mA		60		ns
Fall Time	t_F	IF=50mA		40		ns
Output Current	I_L	VR=0V	250	500		uA
Dark Current	I_D	VR=10V			10	nA

Total Radiated Power is measured by Photodyne #500