

## L780/PD010-40D32-I

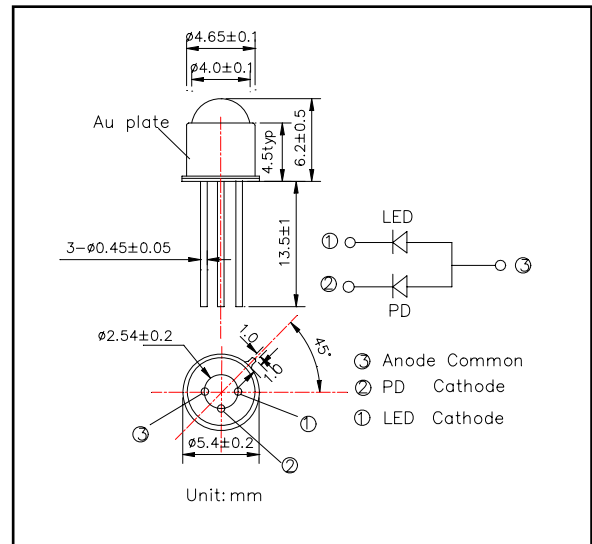
High Power LED with PD Monitor

L780/PD010-40D32-I consists of a GaAlAs LED 780nm and a Si-PD mounted on TO-18 stem at anode common and hermetical sealed with a glass ball lens can.  
It is designed to monitor reflected light through detector for controlling its own output power

### ◆ Specifications

- |                     |                          |
|---------------------|--------------------------|
| 1) Product Name     | LED Lamp with PD Monitor |
| 2) Type No.         | L780/PD010-40D32-I       |
| 3) Chip             |                          |
| (1) Chip material   | GaAlAs, Si (PIN)         |
| (2) Peak wavelength | 780nm                    |
| 4) Package          |                          |
| (1) Stem            | TO-18                    |
| (2) Lens            | Φ5 glass ball lens       |
| (3) Can             | Metal Can (Gold Plate)   |

### ◆ Outer dimension (Unit: mm)



### ◆ Absolute Maximum Ratings [Ta=25°C]

Device	Item	Symbol	Maximum Rated	Unit
LED	Power Dissipation	PD	200	mW
LED	Forward Current	IF	100	mA
LED	Pulse Forward Current	IFP	500	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

‡Pulse Forward Current condition: duty=1% and tw=10us.

‡Soldering condition: 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		1.80	2.00	V
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power	PO	IF=50mA		12.0		mW
Radiant Intensity	IE	IF=50mA		40.0		mW/sr
Peak Wavelength	λP	IF=50mA	760	780	800	nm
Half Width	Δλ	IF=50mA		35		nm
Viewing Half Angle	θ 1/2	IF=50mA		±15		deg.
Rise Time	tr	IF=50mA		80		ns
Fall Time	tf	IF=50mA		80		ns
Output Current	IL	VR=0V		300		uA
Dark Current	ID	VR=10V			10	nA

‡Total Radiated Power is measured by Photodyne #500.

‡Radiant Intensity is measured by Tektronix J-6512

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