

L830/PD010-40D52

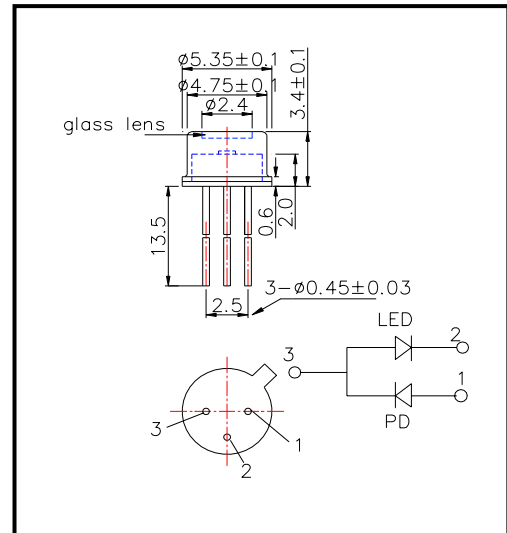
metal can sealed PD monitoring high power LED

L830/PD010-40D52 consists of a GaAIAs LED 830nm 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

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|---------------------|--------------------------|
| 1) Product Name | LED Lamp with PD Monitor |
| 2) Type No. | L830/PD010-40D52 |
| 3) Chip | |
| (1) Chip material | GaAIAs, Si (PIN) |
| (2) Peak wavelength | 830nm |
| 4) Package | |
| (1) Stem | TO-18 |
| (2) Lens | Φ5 2.4 Flat Glass |
| (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	170	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		1.60	1.80	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	λP	IF=50mA	815	830	845	nm
Half Width	Δλ	IF=50mA		35		nm
Viewing Half Angle	θ 1/2	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.

‡Radiant Intensity is measured by Tektronix J-6512