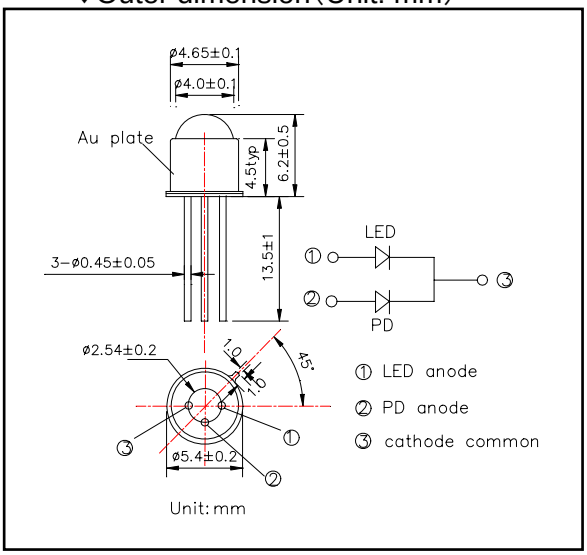
Marubeni

L850/PD010-40D32

High Power LED with PD Monitor

L850/PD010-40D32 consists of a GaAlAs LED 850nm and a Si-PD mounted onTO-18 stem hermetical sealed with a glass ball lens can, and is designed to moniter reflected light through detector for controlling its own output power

♦Outer dimension（Unit: mm）



♦Specifications

1) Product Name	LED Lamp with PD Monitor
2) Type No.	L850/PD010-40D32
3) Chip	
(1) Chip material	GaAlAs, Si (PIN)
(2) Peak wavelength	850nm
4) Package	
(1) Stem	TO-18
(2) Lens	Φ5 glass ball lens
(3) Can	Metal Can (Gold Plate)

♦Absolute Maximum Ratings [Ta=25°C]

Device	Item	Symbol	Maximum Rated	Unit
LED	Power Dissipation	PD	160	mW
LED	Forward Current	IF	100	mA
LED	Pulse Forward Current	IFP	1,000	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		1.50	1.70	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	835	850	865	nm
Half Width	Δλ	IF=50mA		40		nm
Viewing Half Angle	θ 1/2	IF=50mA		±15		deg.
Rise Time	tr	IF=50mA		15		ns
Fall Time	tf	IF=50mA		10		ns
Output Current	IL	VR=0V	130	270		uA
Dark Current	ID	VR=10V			10	nA

‡Total Radiated Power is measured by Photodyne #500.
‡Radiant Intensity is measured byTektronix J-6512

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