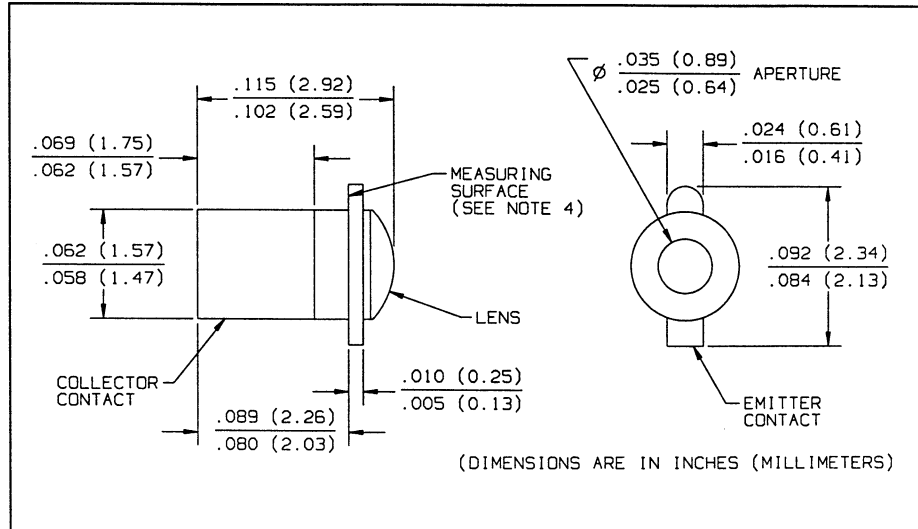


PN Junction Silicon Photodiode Type OP900SL



Features

- Narrow receiving angle
- Enhanced temperature range
- Ideal for direct mounting in PC boards
- Fast switching speed
- Mechanically and spectrally matched to the OP123 series emitters
- Linear response vs. irradiance

Description

The OP900SL consists of a PN junction silicon photodiode mounted in a miniature, glass lensed, hermetically sealed "Pill" package. The lensing effect allows an acceptance half angle of 18° measured from the optical axis to the half power point.

Replaces

OP900 series

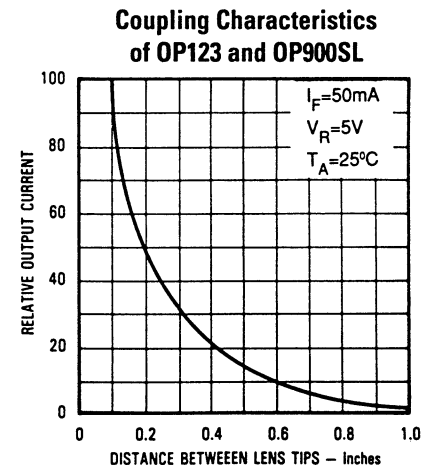
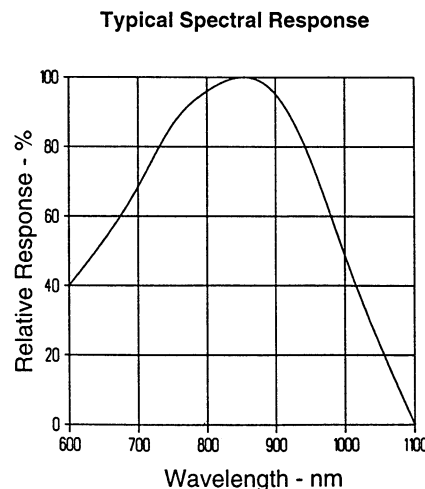
Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Reverse Voltage	100 V
Storage Temperature Range	-65°C to $+150^\circ\text{C}$
Operating Temperature Range	-65°C to $+125^\circ\text{C}$
Soldering Temperature (5 sec. with soldering iron)	$260^\circ\text{C}^{(1)}$
Power Dissipation	$50\text{ mW}^{(2)}$

Notes:

- (1) RMA flux is recommended. Duration can be extended to 10 sec. max. when flow soldering.
- (2) Derate linearly $0.5\text{ mW}/^\circ\text{C}$ above 25°C .
- (3) Junction temperature maintained at 25°C .
- (4) Light source is an unfiltered tungsten bulb operating at $CT = 2870\text{ K}$ or equivalent infrared source.

Typical Performance Curves

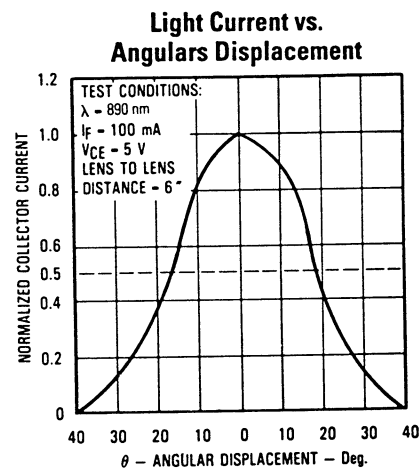
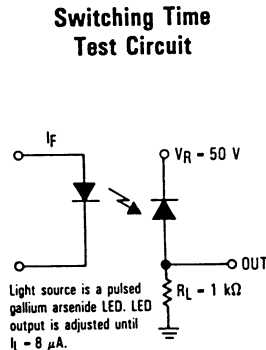
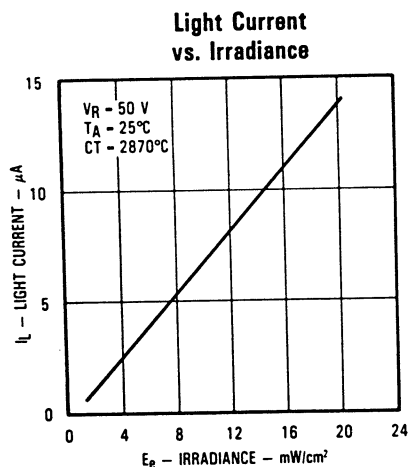
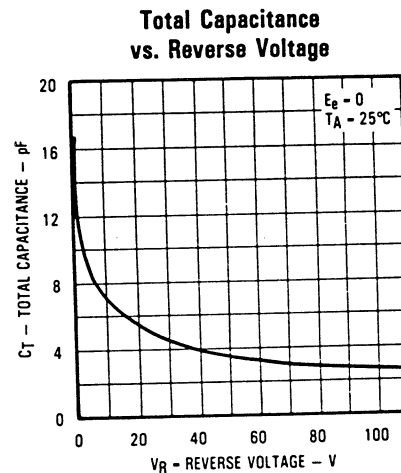
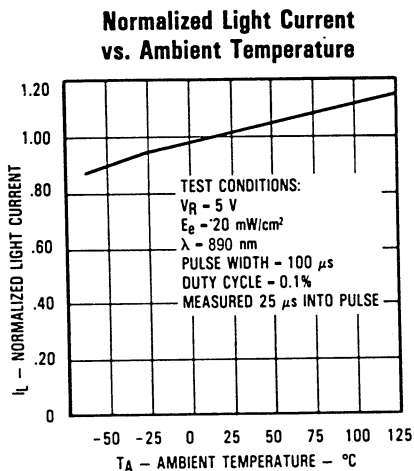
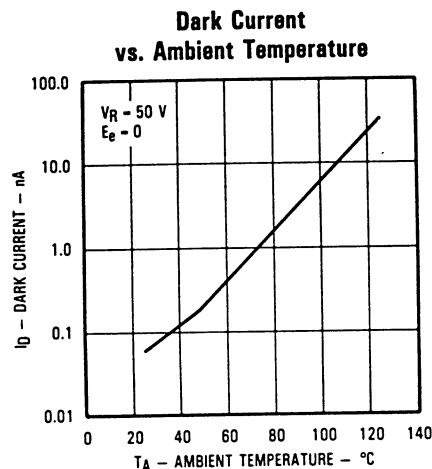


Type OP900SL

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
I_L	Light Current	8.0	14.0		μA	$V_R = 10\text{ V}$, $E_e = 20\text{ mW/cm}^2$ ⁽³⁾⁽⁴⁾
I_D	Dark Current			10	nA	$V_R = 10\text{ V}$, $E_e = 0$ ⁽³⁾
$V_{(BR)R}$	Reverse Voltage Breakdown	100	150		V	$I_R = 100\text{ }\mu\text{A}$
t_r	Rise Time		100		ns	$V_R = 50\text{ V}$, $I_L = 8\text{ }\mu\text{A}$
t_f	Fall Time		100		ns	$R_L = 1\text{ k}\Omega$, See Test Circuit

Typical Performance Curves



Optek reserves the right to make changes at any time in order to improve design and to supply the best product possible.

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