OD44L

Silicon Planar Photodiodes

GENERAL DESCRIPTION

The PIN structure of the OD44L yields in a photodetector capable of high sensitivity and high-speed response. A TO-18 type canned package makes this device suitable for high-reliability applications.

FEATURES

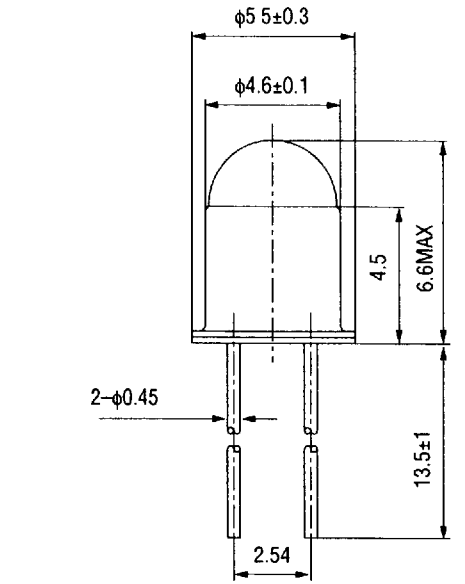
- Metal can package (with lens)
- High directional output
- High sensitivity
- High-speed response

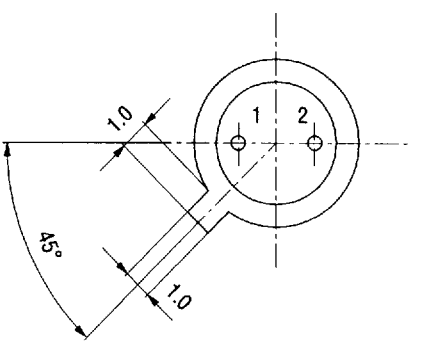
APPLICATIONS

- For photoelectric transducer and control applications

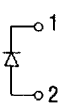
PIN CONFIGURATION

(Unit: mm)





• Pin Connection Diagram



1: Anode

2: Cathode

ABSOLUTE MAXIMUM RATINGS

(Ambient Temperature Ta=25°C)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V_R	50	V
Photo Current	I_L	20	mA
Power Dissipation	P_D	150	mW
Operating Temperature	T_{opr}	−40 to +125	°C
Storage Temperature	T_{stg}	−55 to +130	°C

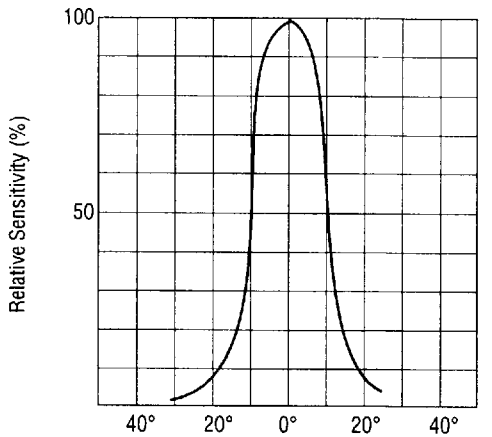
ELECTRICAL CHARACTERISTICS

(Ambient Temperature Ta=25°C)

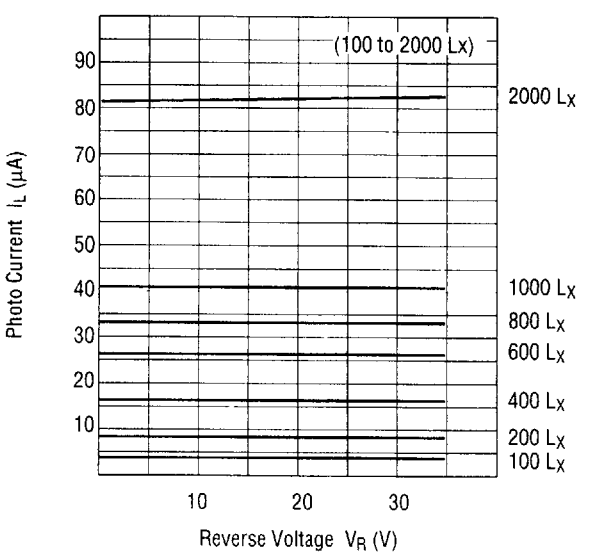
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Breakdown Voltage	BV_R	I_R=10 μA	50	—	—	V
Dark Current	I_D	V_R=10 V	—	—	1	nA
Photo Current	I_L	V_R=0 V, Standard Illuminant Type A=1000 Lx	30	—	—	μA
Junction Capacitance	C_j	V_R=0 V, f=1 MHz	—	—	80	pF

TYPICAL CHARACTERISTICS

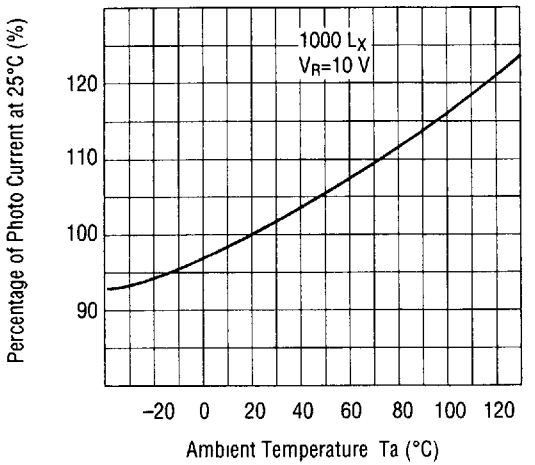
- **Directional Characteristics**



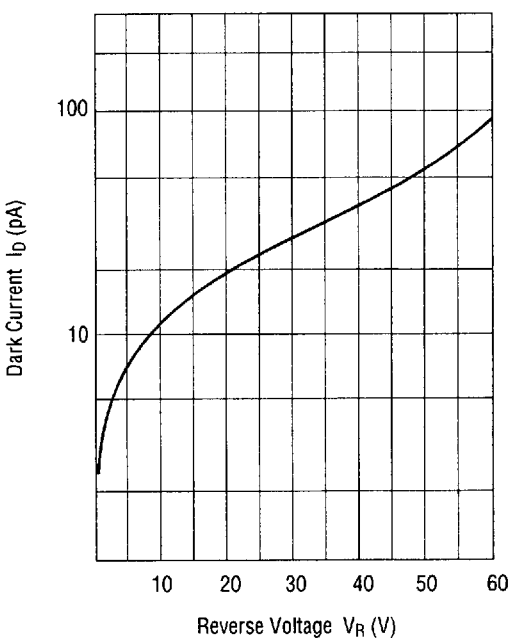
- **Photo Current vs. Reverse Voltage (Ta=25°C)**



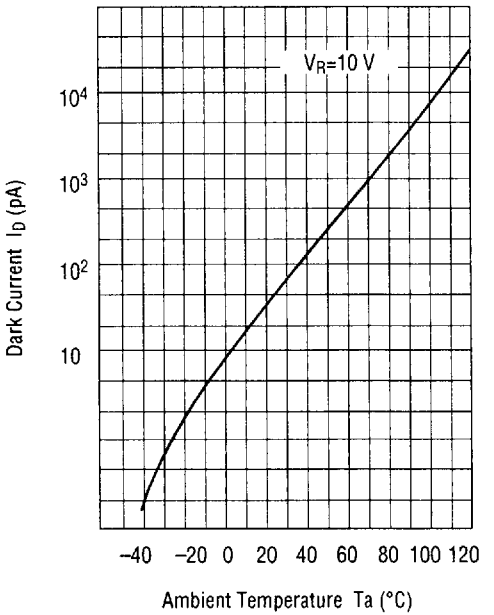
- **Photo Current vs. Ambient Temperature**



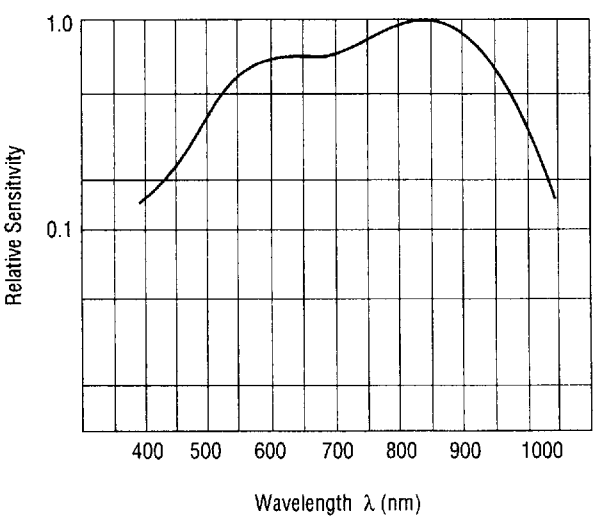
- **Dark Current vs. Reverse Voltage (Ta=25°C)**



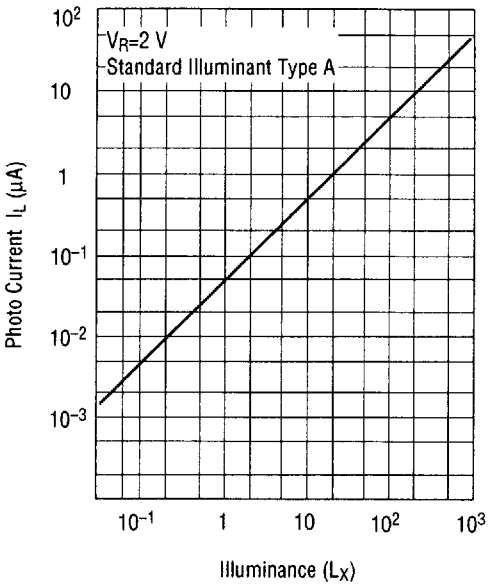
- **Dark Current vs. Ambient Temperature**



- **Spectral Sensitivity (Ta=25°C)**



- **Photo Current vs. Illuminance (Ta=25°C)**



- **Rise Time, Fall Time vs. Load Resistance (Ta=25°C)**