OKI electronic components

OD43L

Silicon Planar Photodiodes

GENERAL DESCRIPTION

The PIN structure of the OD43L results in a photodetector capable of high sensitivity and high-speed response. Low dark current makes this device suitable for high sensitivity applications.

FEATURES

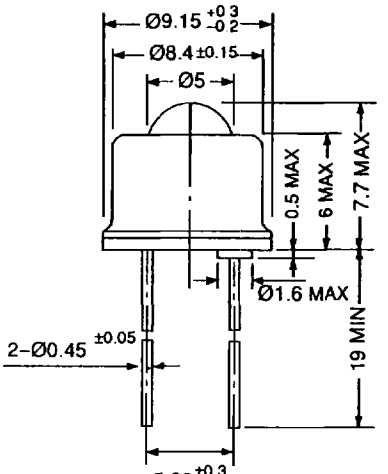
- Reliable metal can package
- Glass lens
- Highly directional output
- High sensitivity
- High-speed response

APPLICATIONS

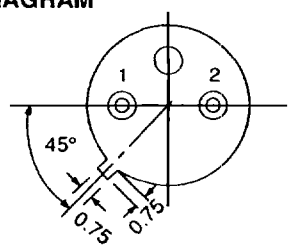
For photoelectric transducer and control applications

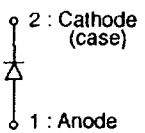
PIN CONFIGURATION

DIMENSION (Unit : mm)



PIN CONNECTION DIAGRAM





ABSOLUTE MAXIMUM RATINGS

(Ambient Temperature Ta = 25°C)

Item	Symbol	Rating	Unit
Reverse voltage	V_R	20	V
Photo current	I_L	20	mA
Power dissipation	P_D	150	mW
Operating temperature	T_{OPr}	-40 ~ +100	°C
Storage temperature	Tstg	-55 ~ +125	°C

Note : Permanent device damage may occur if ABSOLUTE MAXIMUM RATINGS are exceeded. Functional operation should be restricted to the conditions as detailed in the operational sections of this data sheet. Exposure to absolute maximum rating conditions for extended periods may affect device reliability

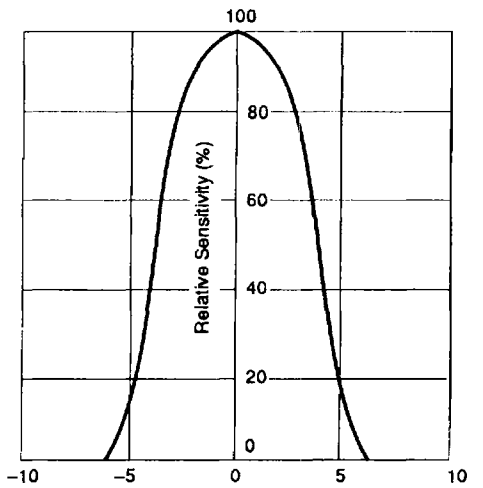
ELECTRICAL CHARACTERISTICS

(Ambient Temperature Ta = 25°C)

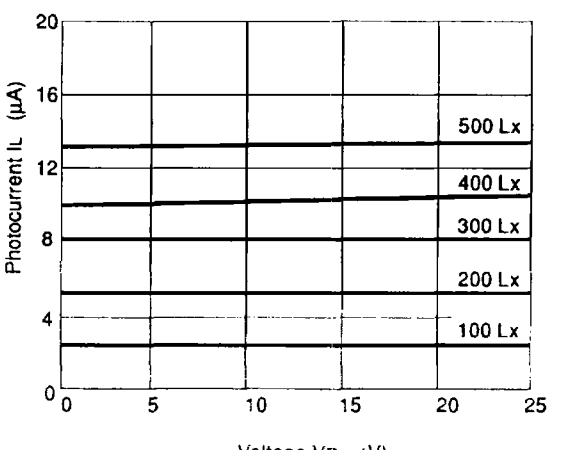
Item	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Breakdown voltage	BV_R	I_R = 10μA	20	—	—	V
Dark current	I_D	V_R = 1.5V	—	—	10	nA
Photo current	I_L	V_R = 1.5V Standard Illuminant Type A=100 Lx	2.3	—	—	μA

TYPICAL CHARACTERISTIC CURVES

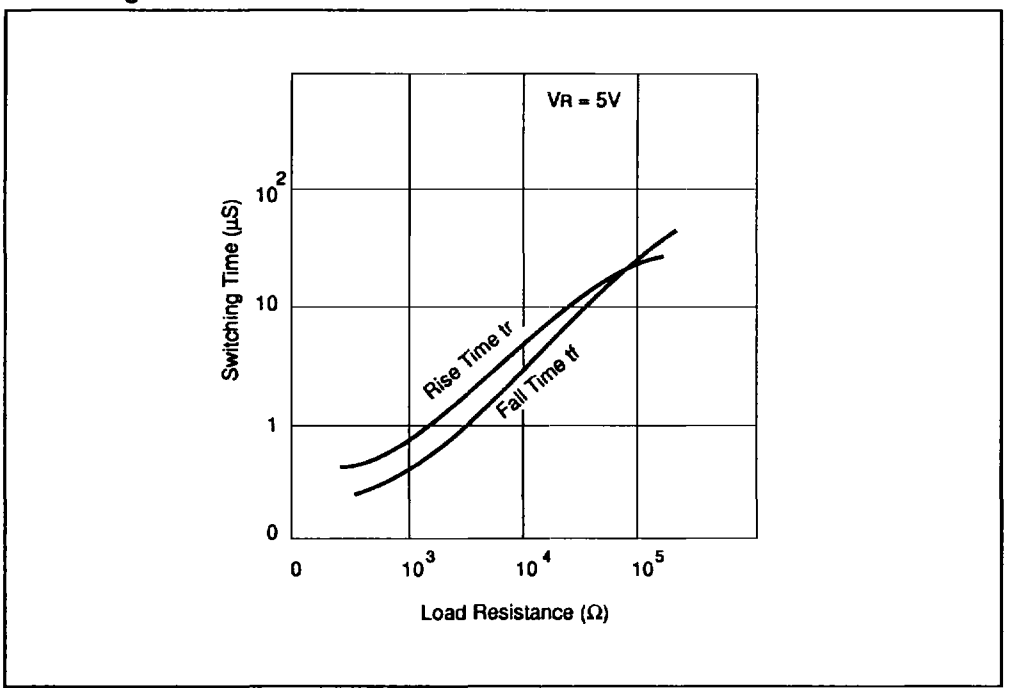
• **Relative Sensitivity vs. Directional Angle**



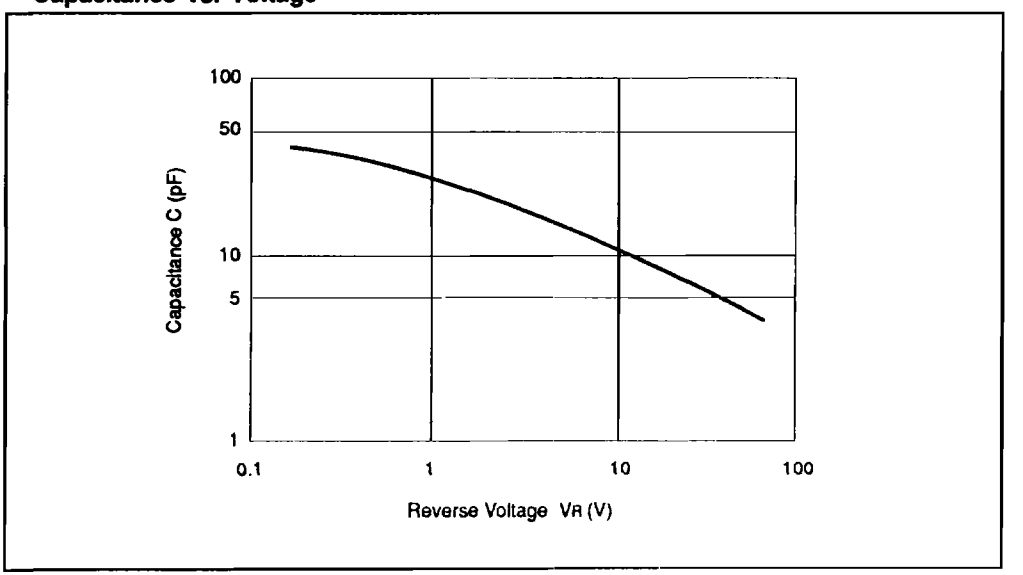
• **Photo Current vs. Voltage**



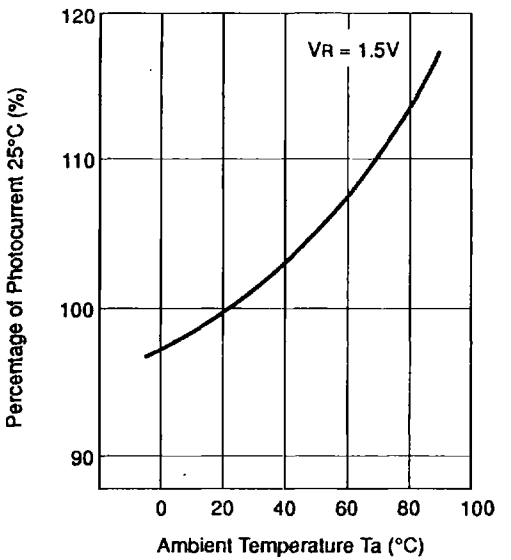
• **Switching Time vs. Load Resistance**



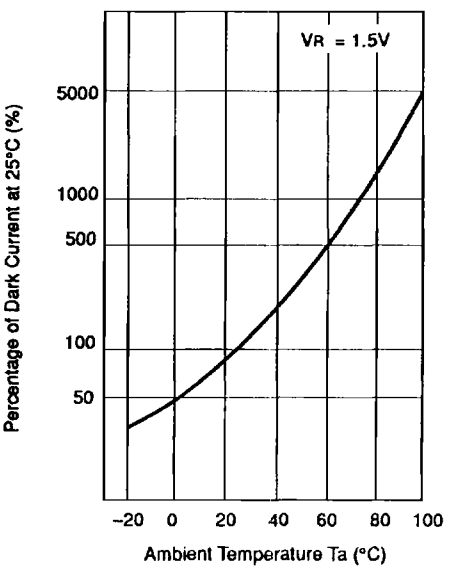
• **Capacitance vs. Voltage**



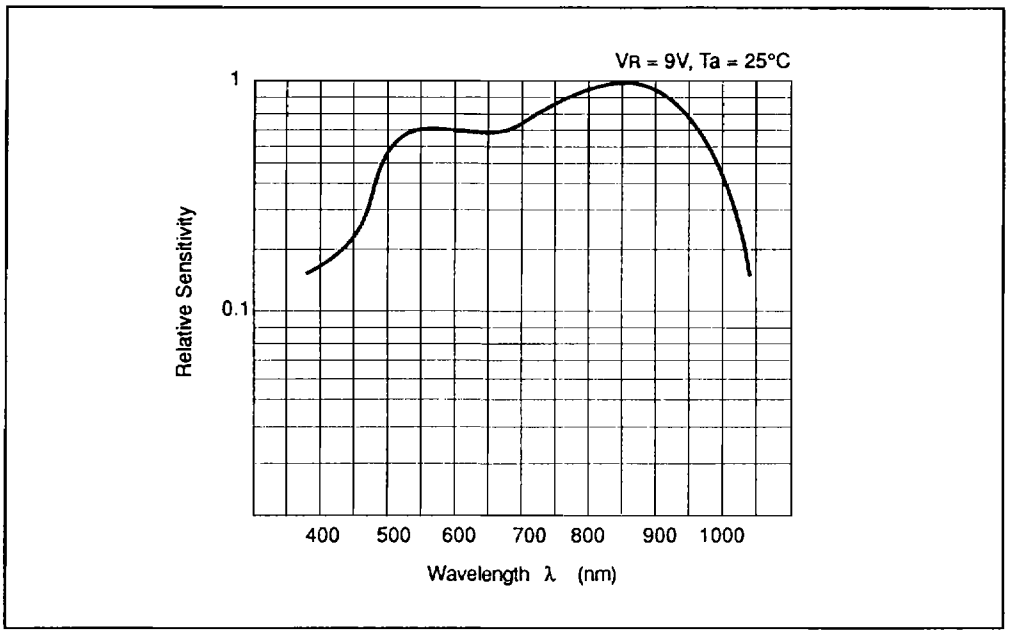
• **Photo Current vs. Temperature**



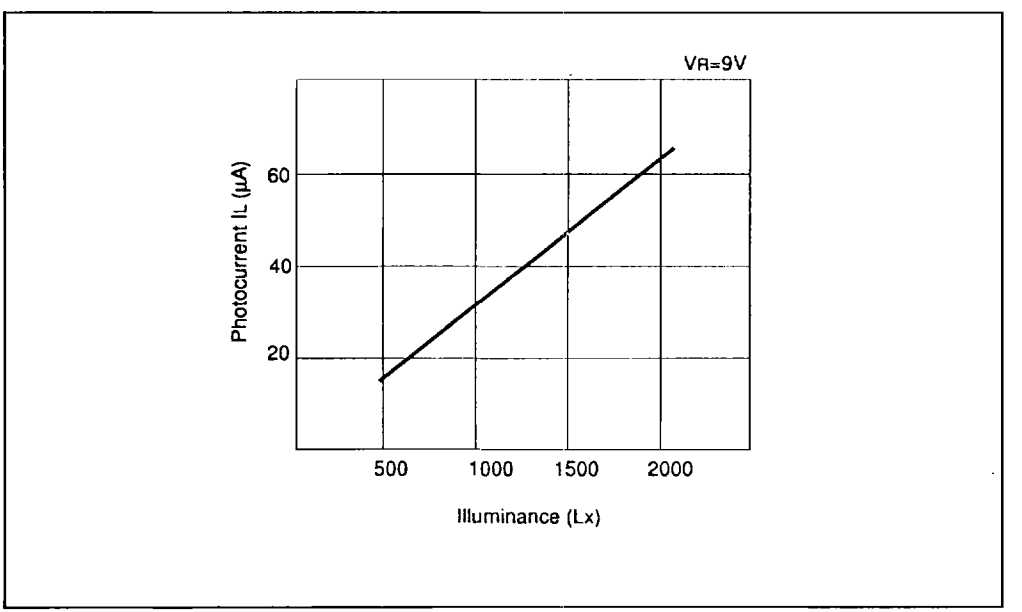
• **Dark Current vs. Temperature**



• **Spectral Sensitivity**



• **Photocurrent vs. Illuminance**



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