

OKI electronic components

T35L

Silicon Planar Phototransistor

GENERAL DESCRIPTION

The planar structure of the T35L silicon phototransistor provides a high degree of sensitivity. High reliability is ensured by a hermetically sealed TO-18 package.

FEATURES

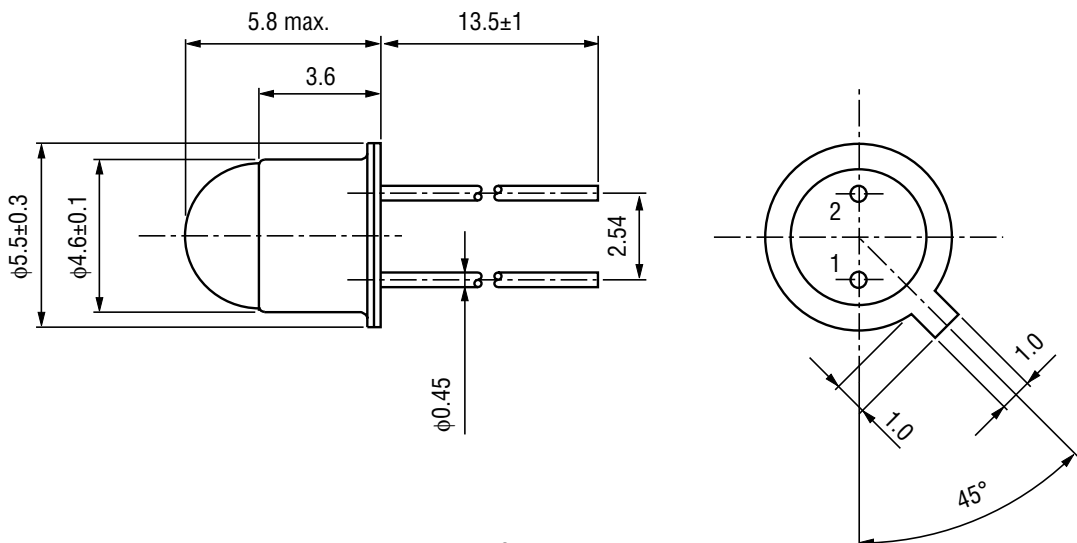
- Silicon planar technology applied in design allows detection of microscopic amounts of light
- High sensitivity
- TO-18 package for ease of handling

APPLICATIONS

- For photoelectric transducer, switching, logic circuits and control

PACKAGE DIMENSIONS

(Unit: mm)



• Pin Connection Diagram



1: Emitter

2: Collector

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Test Condition	Rating	Unit
Collector-emitter Voltage	V_{CE0}	$T_a=25^{\circ}\text{C}$	20	V
Emitter-collector Voltage	V_{ECO}		5	V
Collector Current	I_C		20	mA
Power Dissipation	P_C		150	mW
Operating Temperature	T_{opr}	—	-40 to +100	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	—	-55 to +125	$^{\circ}\text{C}$

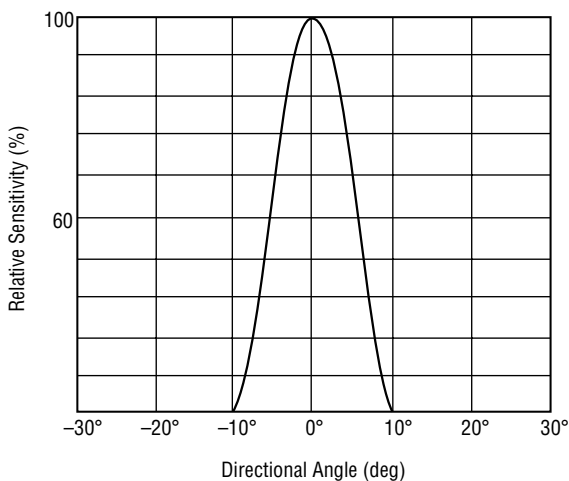
ELECTRICAL AND OPTICAL CHARACTERISTICS

(Ambient Temperature $T_a=25^{\circ}\text{C}$)

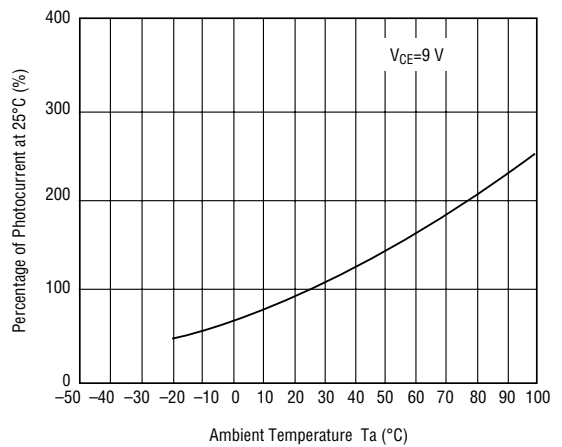
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-emitter Breakdown Voltage	BV_{CE0}	$I_C=100\ \mu\text{A}$	20	—	—	V
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5\ \text{mA}$ Standard Illuminant A=1000 ℓ_x	—	0.2	0.4	V
Dark Current	I_D	$V_{CE}=9\ \text{V}$	—	—	100	nA
Photocurrent	I_L	$V_{CE}=9\ \text{V}$ Standard Illuminant A=100 ℓ_x	1000	—	—	μA

TYPICAL CHARACTERISTICS

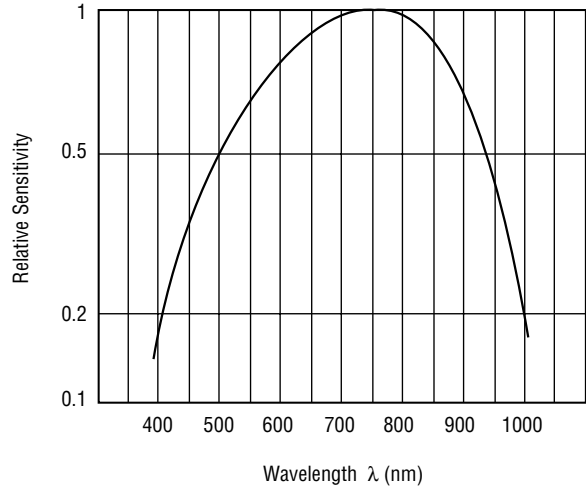
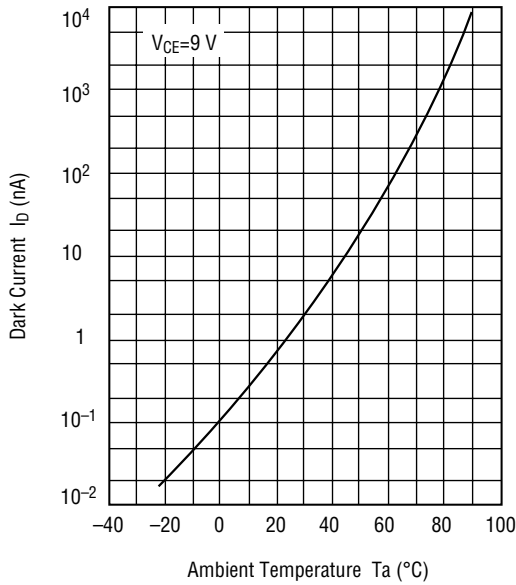
- Directional Characteristics



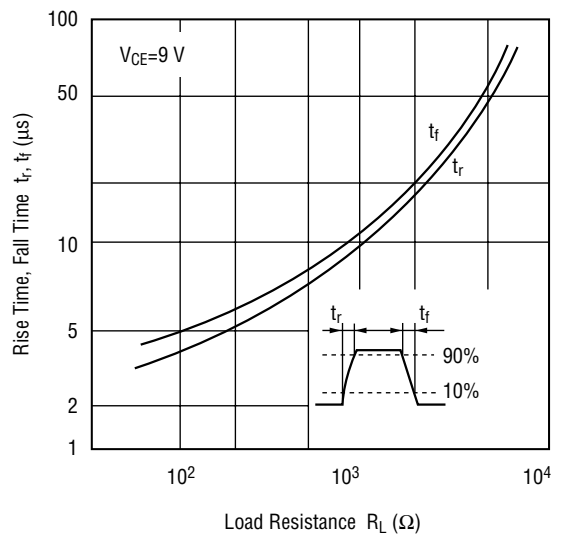
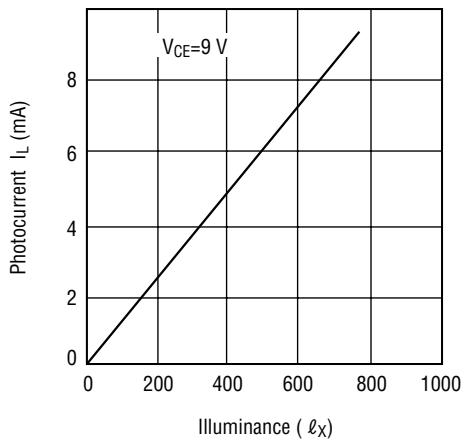
- Photocurrent vs. Ambient Temperature ($V_{CE}=9\ \text{V}$)



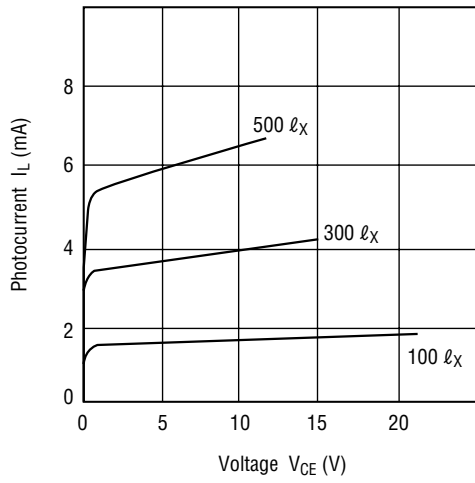
- Dark Current vs. Ambient Temperature
- Spectral Sensitivity ($T_a=25^\circ\text{C}$)



- Photocurrent vs. Illuminance ($T_a=25^\circ\text{C}$)
- Rise Time, Fall Time vs. Load Resistance ($T_a=25^\circ\text{C}$)



• Photocurrent vs. Voltage (Ta=25°C)



• Dark Current vs. Voltage (Ta=25°C)

