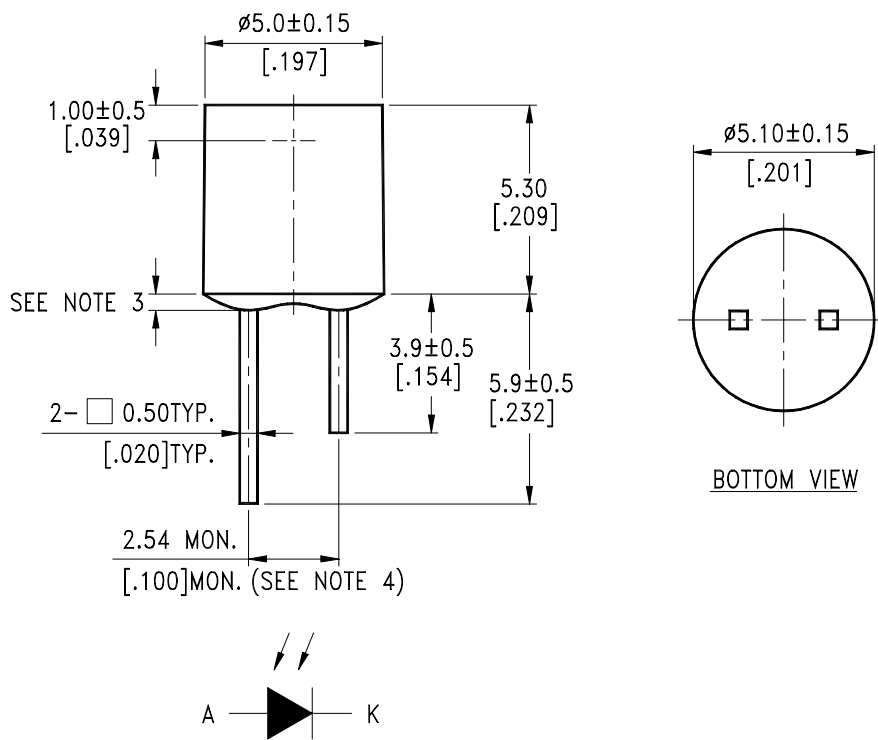


## FEATURES

- \* HIGH PHOTO SENSITIVITY
- \* SUITABLE FOR VISIABLE LIGHT
- \* LOW JUNCTION CAPACITANCE
- \* FAST SWITCHING TIME

## PACKAGE DIMENSIONS



### NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}(.010\text{'})$  unless otherwise noted.
3. Protruded resin under flange is  $1.5\text{mm}(.059\text{'})$  max.
4. Lead spacing is measured where the leads emerge from the package.
5. Active area:  $49 \times 49 \text{ mil}^2$
6. Refractive index of epoxy:  $\eta \doteq 1.5$
7. Specifications are subject to change without notice.



# LITE-ON ELECTRONICS, INC.

Property of Lite-On Only

## ABSOLUTE MAXIMUM RATINGS AT TA=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation	150	mW
Collector-Emitter Voltage	30	V
Operating Temperature Range	-40°C to + 85°C	
Storage Temperature Range	-55°C to + 100°C	
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for 5 Seconds	

## ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Reverse Break Down Voltage	V <sub>(BR)R</sub>	30			V	I <sub>R</sub> = 100 $\mu$ A E <sub>e</sub> = 0mW/cm <sup>2</sup>
Reverse Dark Current Voltage	I <sub>D(R)</sub>			30	nA	V <sub>R</sub> = 10V E <sub>e</sub> = 0mW/cm <sup>2</sup>
Open Circuit Voltage	V <sub>OC</sub>		350		mV	$\lambda$ = 940nm E <sub>e</sub> = 0.5mW/cm <sup>2</sup>
Rise Time	T <sub>r</sub>		5		nsec	V <sub>R</sub> = 10V R <sub>L</sub> = 1K $\Omega$
Fall Time	T <sub>f</sub>		5		nsec	
Short Circuit Current	I <sub>S</sub>	1	3		$\mu$ A	V <sub>R</sub> = 0V $\lambda$ = 940nm E <sub>e</sub> = 0.5mW/cm <sup>2</sup>
Total Capacitance	C <sub>T</sub>		25		pF	V <sub>R</sub> = 3V f = 1MHz E <sub>e</sub> = 0mW/cm <sup>2</sup>
Wavelength of the Max Sensitivity	$\lambda$ SMAX		880		nm	

**TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES**

(25°C Ambient Temperature Unless Otherwise Noted)

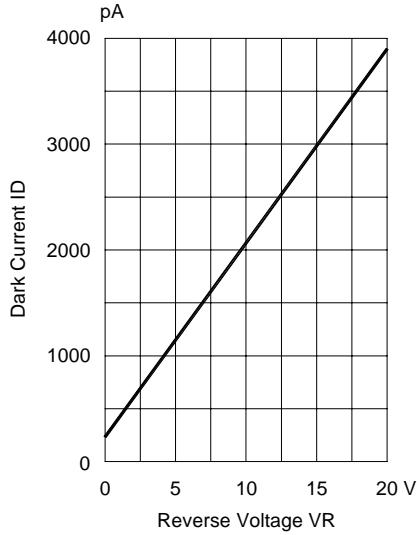


Fig.1 DARK CURRENT VS. REVERSE VOLTAGE  
TA=25° C, Ee=0 mW/cm<sup>2</sup>

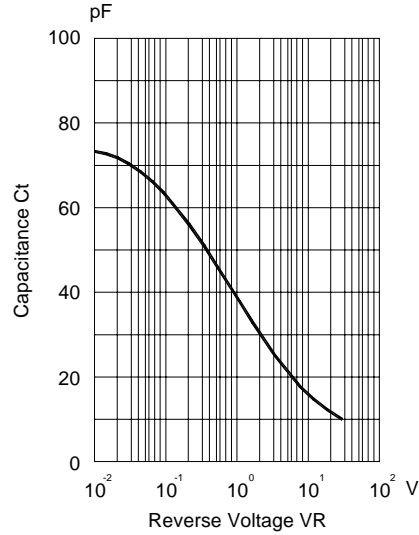


Fig.2 CAPACITANCE VS. REVERSE VOLTAGE  
F=1MHZ; Ee=0mW/cm<sup>2</sup>

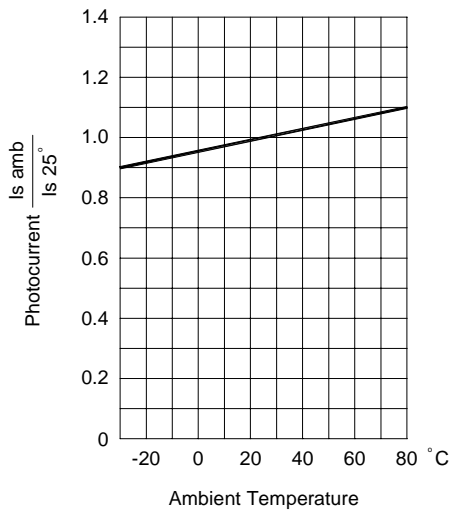


Fig.3 PHOTOCURRENT VS. AMBIENT TEMPERATURE

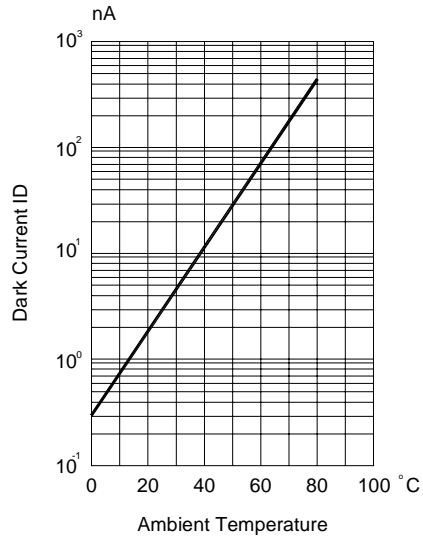


Fig.4 DARK CURRENT VS. AMBIENT TEMPERATURE  
VR=10, Ee=0mW/cm<sup>2</sup>

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

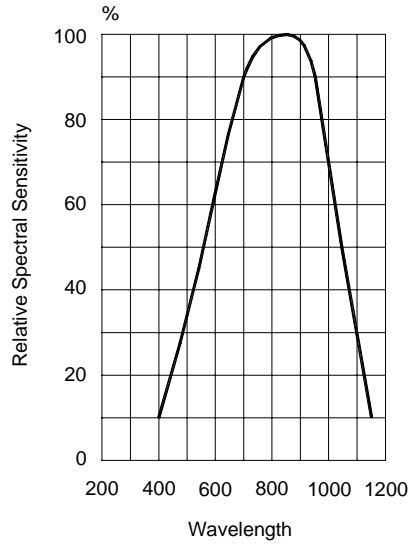


Fig.5 RELATIVE SPECTRAL SENSITIVITY VS WAVELENGTH

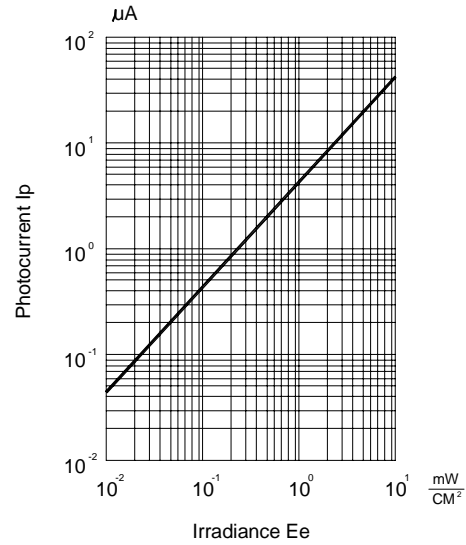


Fig.6 PHOTOCURRENT VS IRRADIANCE  $\lambda = 940$  nm

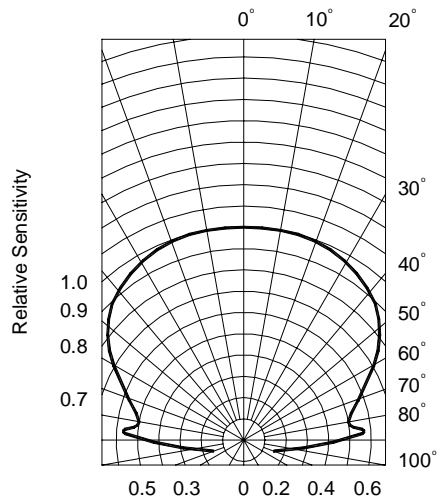


Fig.7 SENSITIVITY DIAGRAM

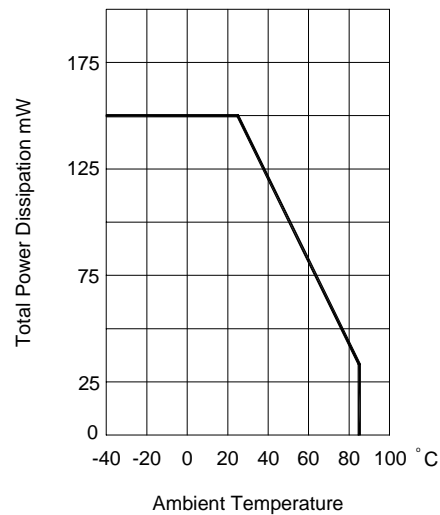


Fig.8 TOTAL POWER DISSIPATION VS AMBIENT TEMPERATURE