

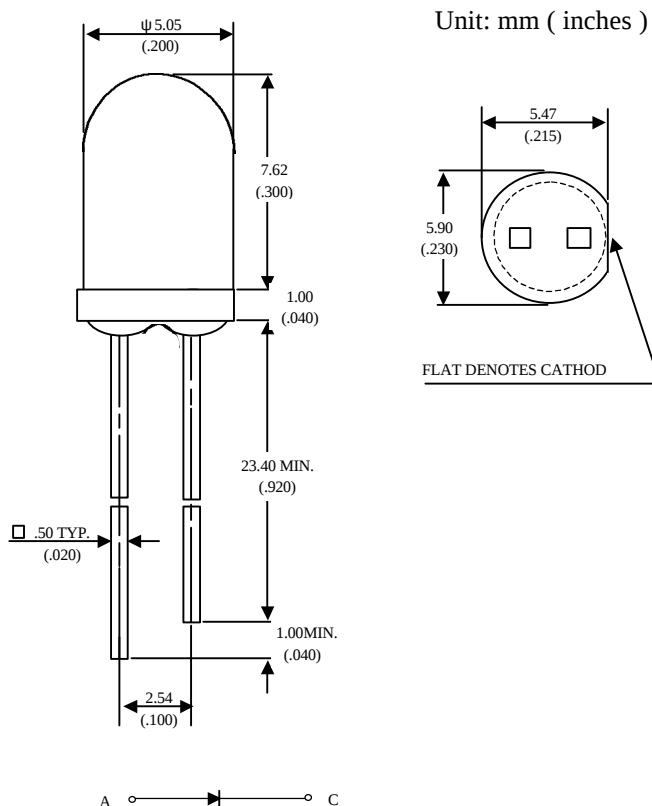
T-1 3/4 PACKAGE PIN PHOTODIODE

MID-56A19

Description

The MID-56A19 is a photodiode mounted in special dark end look plastic package and suitable for the IRED 940nm type.

Package Dimensions



Features

- High photo sensitivity
- Low junction capacitance
- High cut-off frequency
- Fast switching time
- Acceptance viwe angle : 60°

Notes :

1. Tolerance is ± 0.25 mm (.010") unless otherwise noted.
2. Protruded resin under flange is 1.0 mm (.040") max.
3. Lead spacing is measured where the leads emerge from the package.

Absolute Maximum Ratings

@ $T_A = 25^\circ\text{C}$

Parameter	Maximum Rating	Unit
Power Dissipation	150	mW
Operating Temperature Range	-55°C to $+100^\circ\text{C}$	
Storage Temperature Range	-55°C to $+100^\circ\text{C}$	
Lead Soldering Temperature	260°C for 5 seconds	

UNi

Unity Opto Technology Co., Ltd.

02/04/2002

Optical-Electrical Characteristics

@ $T_A=25^{\circ}\text{C}$

Parameter	Test Conditions	Symbol	Min.	Type	Max.	Unit
Reverse Break Down Voltage	$I_R=100\mu\text{A}$ $E_e=0$	$V_{(BR)R}$	30			V
Reverse Dark Current	$V_R=10\text{V}$ $E_e=0$	I_D			30	nA
Open Circuit Voltage	$\lambda=940\text{nm}$ $E_e=0.1\text{mW}/\text{cm}^2$	V_{OC}		350		mV
Rise Time	$V_R=10\text{V}, \lambda=940\text{nm}$ $R_L=50\Omega$	T_r		30		nsec
Fall Time		T_f		30		
Light Current	$V_R=5\text{V}, \lambda=940\text{nm}$ $E_e=0.1\text{mW}/\text{cm}^2$	I_L		12		μA
Total Capacitance	$V_R=3\text{V}, f=1\text{MHz}$ $E_e=0$	C_T		25		pF

Typical Optical-Electrical Characteristic Curves

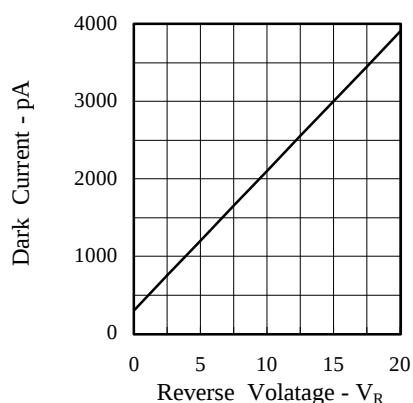


FIG.1 DARK CURRENT VS REVERSE VOLTAGE
 $T_A=25^{\circ}\text{C}, E_e=0 \text{ mW}/\text{cm}^2$

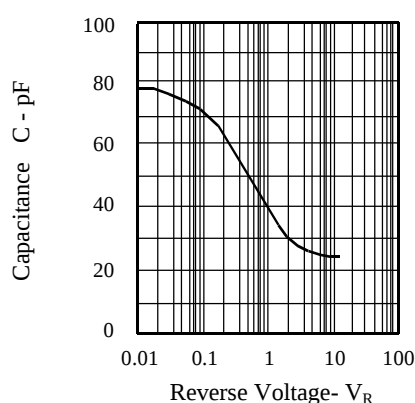


FIG.2 CAPACITANCE VS. REVERSE VOLTAGE
 $F=1\text{MHz}, E_e=0 \text{ mW}/\text{cm}^2$

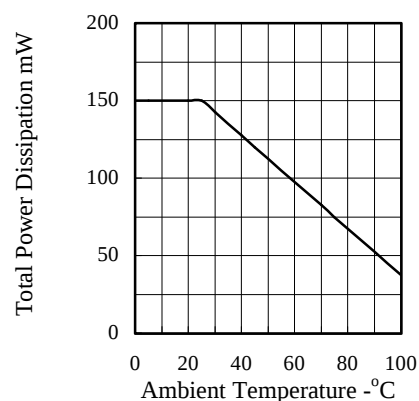


FIG.3 TOTAL POWER DISSIPATION
VS. AMBIENT TEMPERATURE

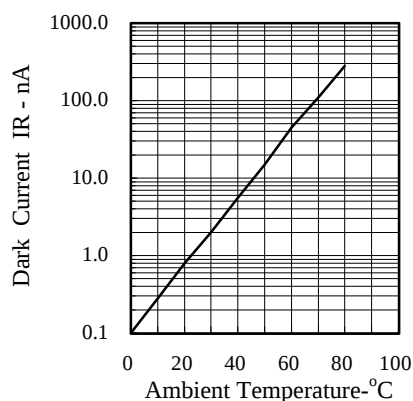


FIG.4 DARK CURRENT VS AMBIENT
TEMPERATURE
 $V_R=10, E_e=0 \text{ mW}/\text{cm}^2$

Typical Optical-Electrical Characteristic Curves

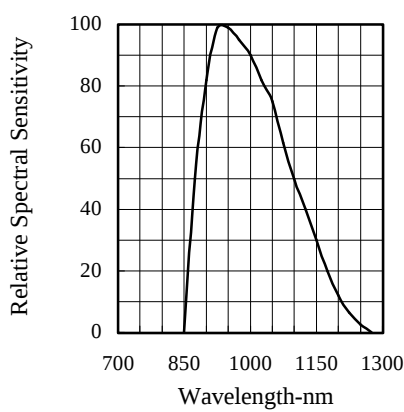


FIG.5 RELATIVE SPECTRAL SENSITIVITY VS. WAVELENGTH

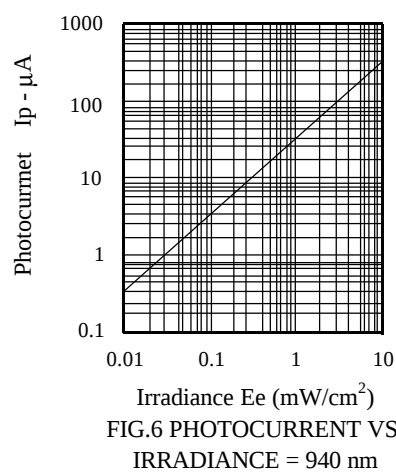


FIG.6 PHOTOCURRENT VS. IRRADIANCE = 940 nm

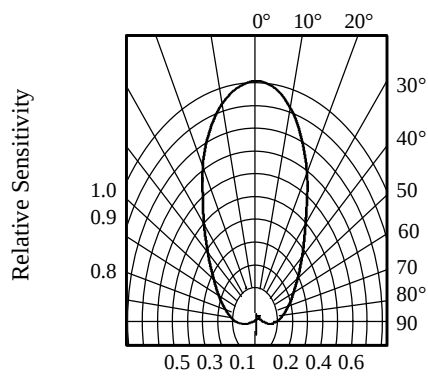


FIG .7 SENSITIVITY DIAGRAM