

T-1 3/4 PACKAGE PIN PHOTODIODE

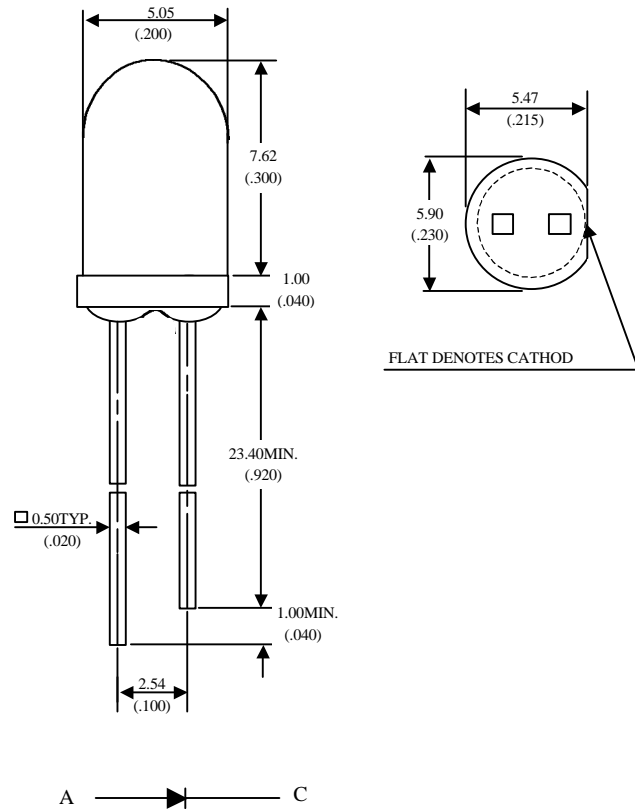
MID-54419

Description

The MID-54419 is a photo diode mounted in water clear end look plastic package and suitable for the variety wavelength.

Package Dimensions

Unit: mm (inches)



Features

- High photo sensitivity
- Low junction capacitance
- High cut-off frequency
- Fast switching time
- Acceptance angle: 40°

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°C	
Storage Temperature Range	-55°C to +100°C	
Lead Soldering Temperature	260°C for 5 seconds	

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Optical-Electrical Characteristics

@ T_A=25°C

Parameter	Test Conditions	Symbol	Min.	Type	Max.	Unit
Reverse Breakdown Voltage	I _R =100μA Ee=0	V _{(BR)R}	30			V
Reverse Dark Current	V _R =10V Ee=0	I _D			30	nA
Open Circuit Voltage	λ=850nm Ee=0.1mW/cm ²	V _{OC}		350		mV
Rise Time	V _R =10V λ=850nm R _L =1KΩ	Tr		40		nsec
Fall Time		Tf		30		
Light Current	V _R =5V , λ=850nm Ee=0.1mW/cm ²	I _L		12		μA
Total Capacitance	V _R =3V , f=1MHZ Ee=0	C _T		25		pF

Typical Optical-Electrical Characteristic Curves

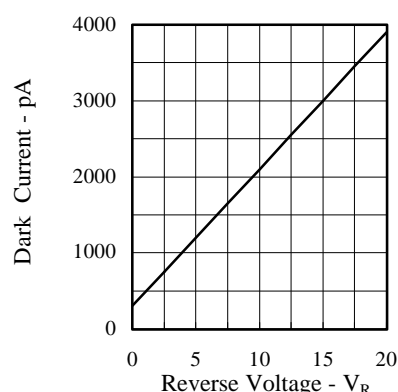


FIG.1 DARK CURRENT VS REVERSE VOLTAGE
T_a =25°C, Ee=0 mW/cm²

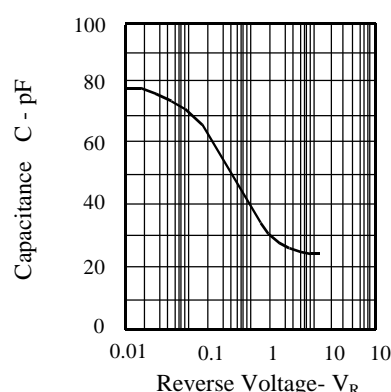


FIG.2 CAPACITANCE VS. REVERSE VOLTAGE
F=1MHZ, Ee=0mW/cm²

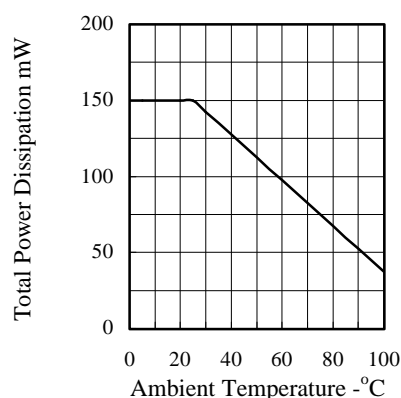


FIG.3 TOTAL POWER DISSIPATION
VS. AMBIENT TEMPERATURE

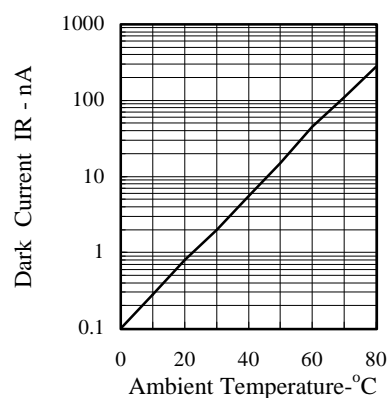


FIG.4 DARK CURRENT VS. AMBIENT
TEMPERATURE
V_R=10, Ee=0 mw/cm²

Typical Optical-Electrical Characteristic Curves

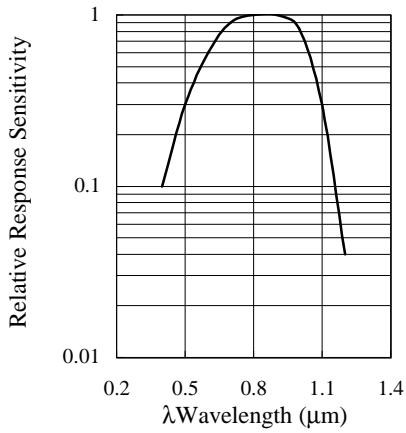


FIG.5 RELATIVE SPECTRAL SENSITIVITY VS. WAVELENGTH

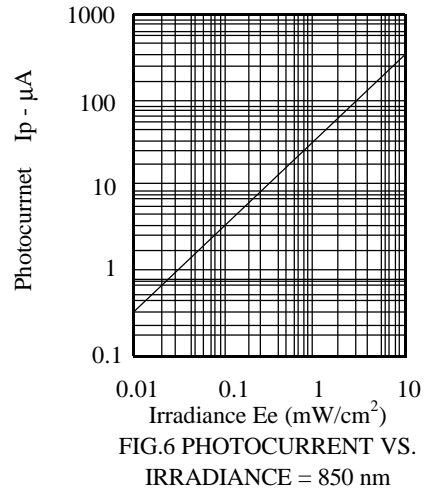


FIG.6 PHOTOCURRENT VS. IRRADIANCE = 850 nm

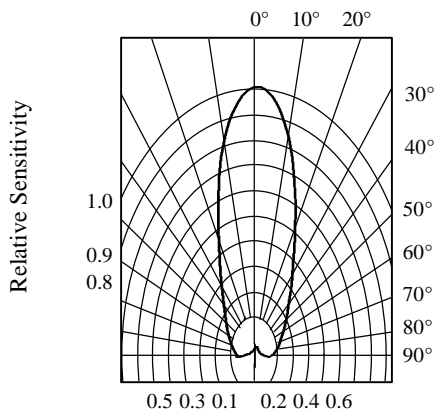


FIG.7 SENSITIVITY DIAGRAM