

SIDE LOOK PACKAGE

NPN PHOTODETECTOR

MID-11422

Description

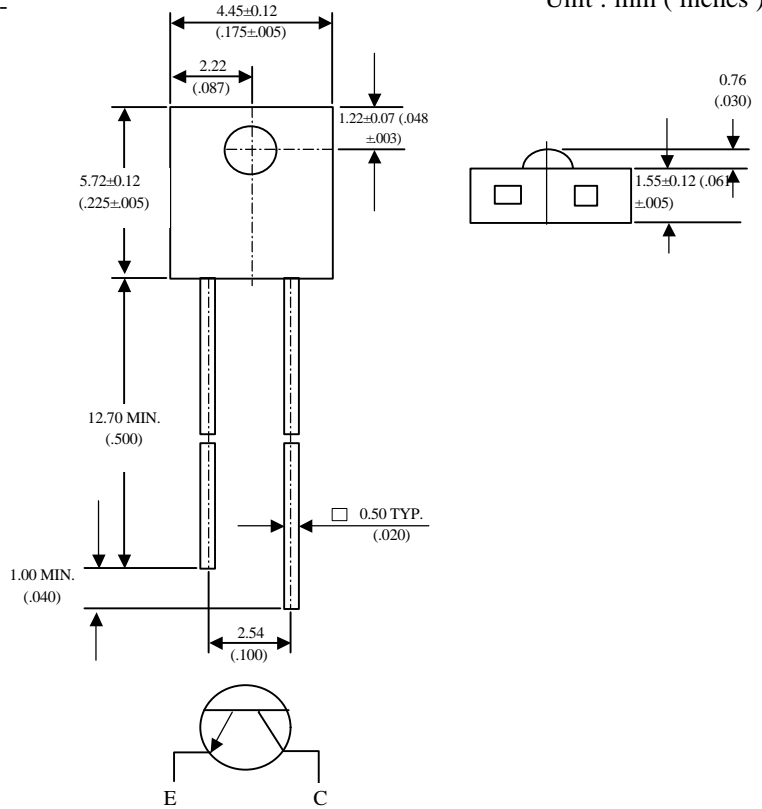
The MID-11422 is a NPN silicon phototransistor mounted in a lensed, water clear plastic and side looking package.

Features

- Wide range of collector current
- Lensed for high sensitivity
- Clear transparent package
- Low cost plastic package

Package Dimensions

Unit : mm (inches)



Notes :

1. Tolerance is $\pm 0.25\text{mm}$ (.010") unless otherwise noted .
2. Protruded resin under flange is 1.5 mm (.059") 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	100	mW
Collector-Emitter Voltage	30	V
Emitter-Collector Voltage	5	V
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	

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Unity Opto Technology Co., Ltd.

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Optical-Electrical Characteristics

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

Parameter	Test Conditions	Symbol	Min.	Typ .	Max.	Unit
Collector-Emitter Breakdown Voltage	$I_e=0.1\text{mA}$ $E_e=0$	$V_{(BR)CEO}$	30			V
Emitter-Collector Breakdown Voltage	$I_e=0.1\text{mA}$ $E_e=0$	$V_{(BR)ECO}$	5			V
Collector-Emitter Saturation Voltage	$I_c=0.5\text{mA}$ $E_e=0.1\text{mW/cm}^2$	$V_{CE(SAT)}$			0.4	V
Rise Time	$V_R=30\text{V}$, $0=1\text{K}\Omega$ $I_C=1\text{mA}$	T_r		15		μS
Fall Time		T_f		15		
Collector Dark Current	$V_{CE}=10\text{V}$ $E_e=0\text{mW/cm}^2$	I_{CEO}			100	nA
On State Collector Current	$V_{CE}=5\text{V}$ $E_e=0.1\text{mW/cm}^2$	$I_{C(ON)}$	0.256			mA

Typical Optical-Electrical Characteristic Curves

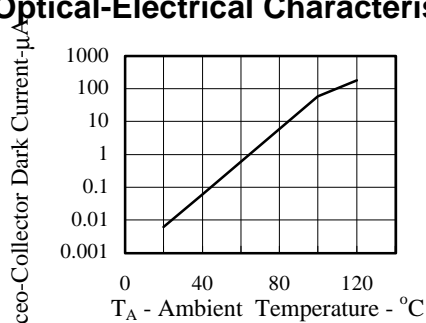


FIG.1 COLLECTOR DARK CURRENT VS AMBIENT TEMPERATURE

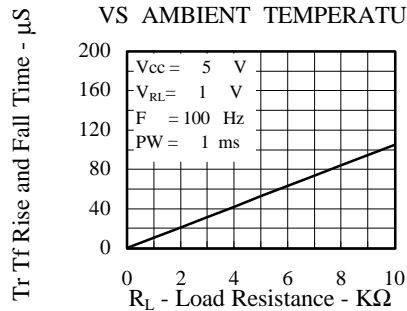


FIG.3 RISE AND FALL TIME VS LOAD RESISTANCE

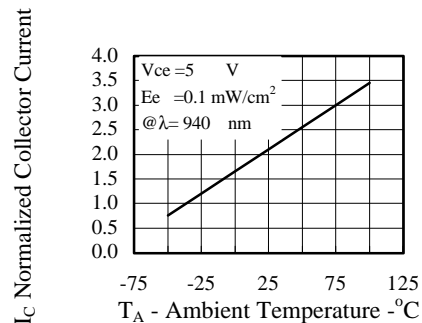


FIG.2 NORMALIZED COLLECTOR CURRENT VS AMBIENT TEMPERATURE

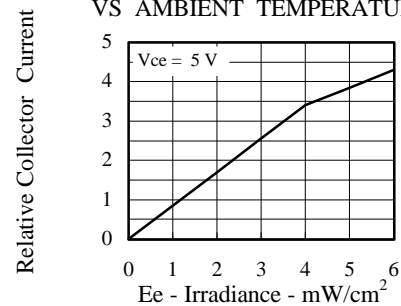


FIG.4 RELATIVE COLLECTOR CURRENT VS IRRADIANCE

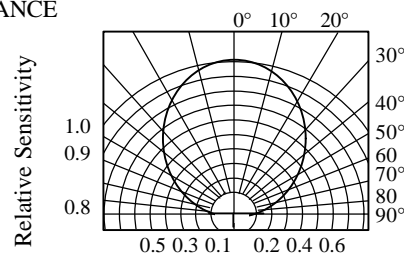


FIG.5 SENSITIVITY DIAGRAM