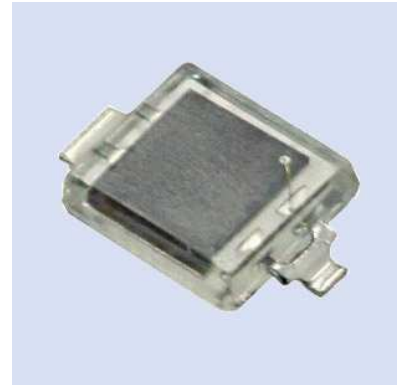


## Technical Data Sheet

### Silicon Planar PIN Photodiode: SGPD30C

#### ■ Features

- Fast response time
- High photo sensitivity
- Small junction capacitance
- Wide temperature range
- Small package
- Pb free
- The product itself will remain within RoHS compliant version.



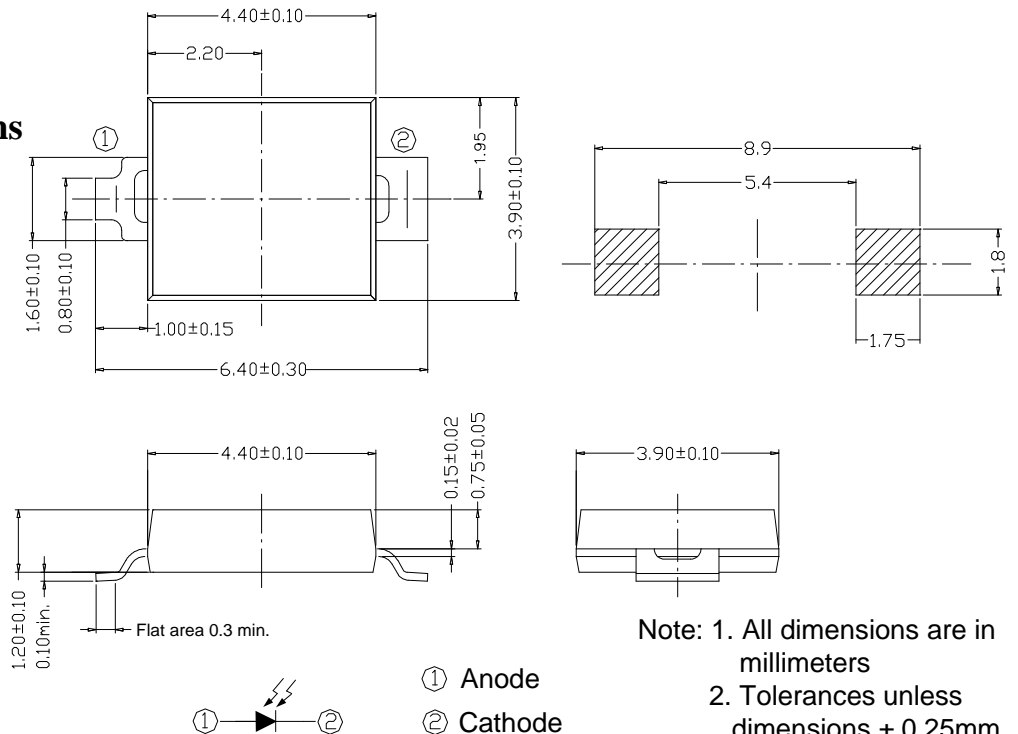
#### ■ Descriptions

The SGPD30C is high sensitivity, fast switching times, low capacitance, compact size, and lack of measurable degradation make it suitable for diverse applications, such as TV and appliance remote control, IR sound transmission, video recorders, and measurement and control.

#### ■ Applications

- High speed photo detector
- VCRs , Video camera, Copier
- Elevator

#### ■ Package Dimensions



### ■ Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Units
Reverse Voltage	VR	32	V
Power Dissipation	Pd	150	mW
Lead Soldering Temperature	Tsol	260	°C
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	°C

### ■ Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Rang of Spectral Bandwidth	$\lambda_{0.5}$	----	400	----	1100	nm
Wavelength of Peak Sensitivity	$\lambda_p$	----	----	940	----	nm
Open-Circuit Voltage	Voc	Ee=5m W/cm <sup>2</sup> $\lambda_p=940\text{nm}$	----	0.35	----	V
Short- Circuit Current	Isc	Ee=5m W/cm <sup>2</sup> $\lambda_p=940\text{nm}$	----	95	----	$\mu\text{A}$
Reverse Light Current	IL	Ee=5m W/cm <sup>2</sup> $\lambda_p=940\text{nm}$ VR=5V	80	95	----	$\mu\text{A}$
Dark Current	Id	Ee=0m W/cm <sup>2</sup> VR=10V	----	----	10	nA
Reverse Breakdown	BVR	Ee=0m W/cm <sup>2</sup> IR=100 $\mu\text{A}$	40	170	----	V
Total Capacitance	Ct	Ee=0m W/cm <sup>2</sup> VR=3V f=1MHZ	----	25	----	pF
Rise/Fall Time	tr/tf	VR=10V RL=1K $\Omega$		50/50		nS

■ **Typical Electro-Optical Characteristics Curves**

Fig.1 Power Dissipation vs. Ambient Temperature

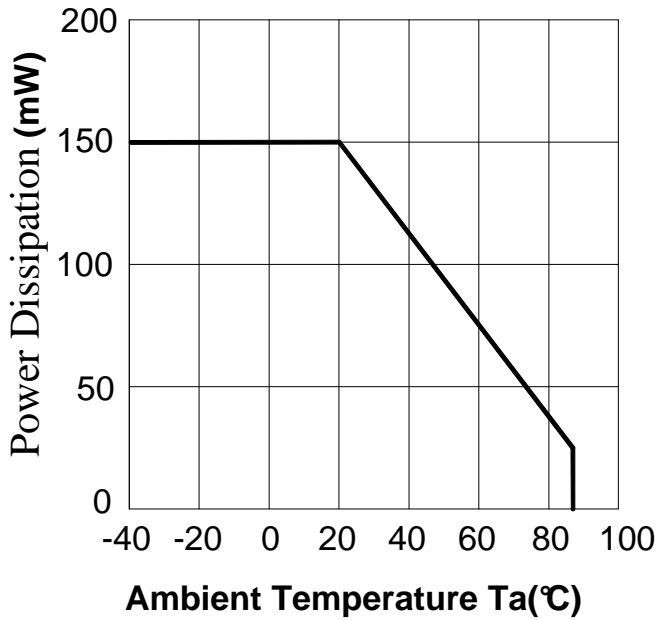


Fig.2 Spectral Sensitivity

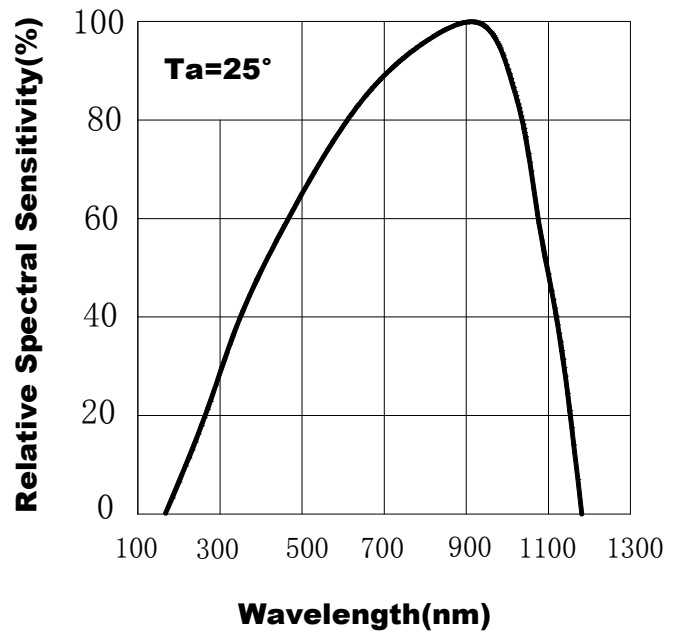


Fig.3 Dark Current vs. Ambient Temperature

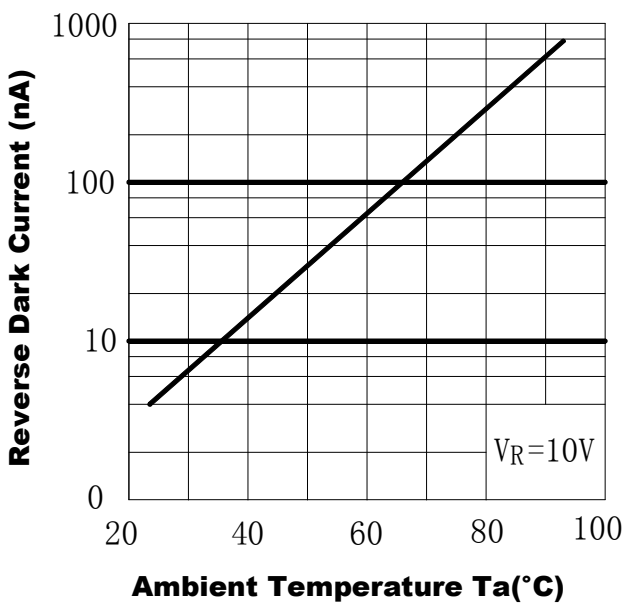


Fig.4 Reverse Light Current vs. Ee

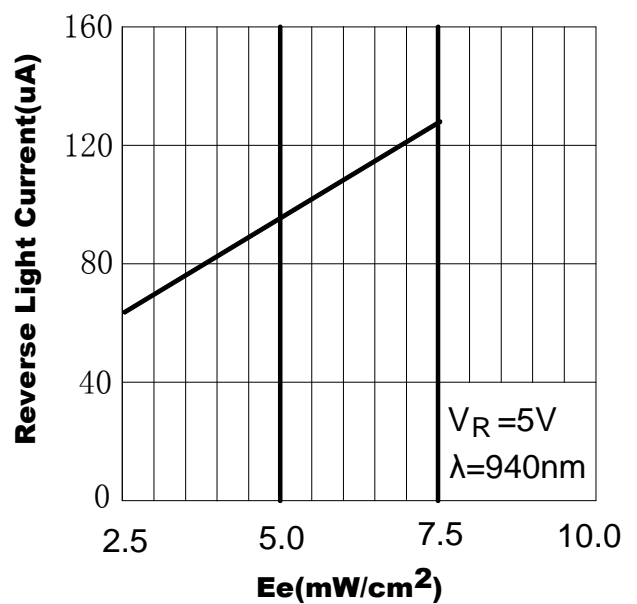


Fig.5 Terminal Capacitance vs.  
Reverse Voltage

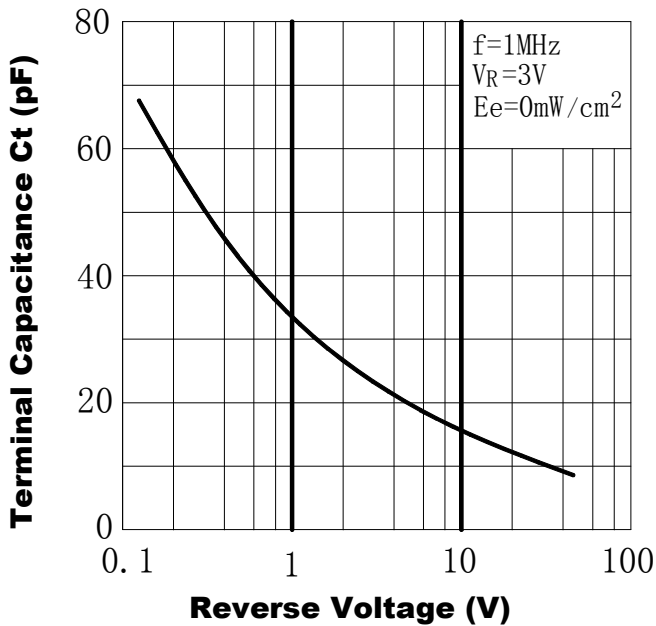
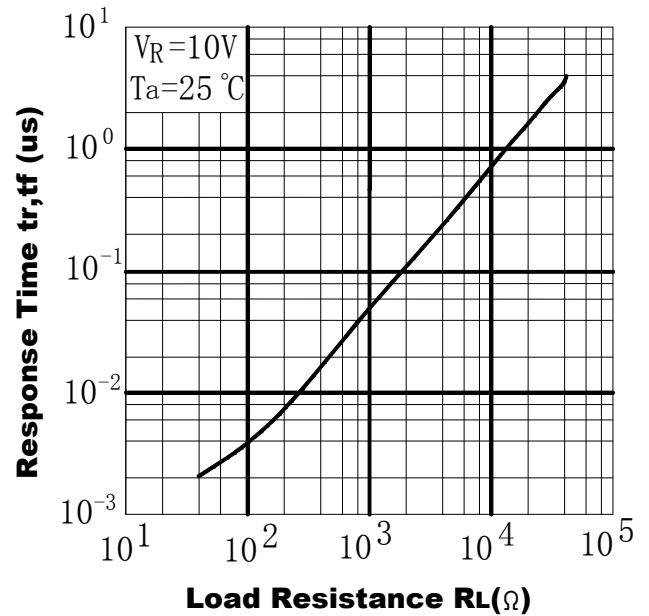


Fig.6 Response Time vs.  
Load Resistance



## ■ Packing Quantity Specification

1. 1000PCS/1Volume

## ■ Notes

1. Above specification may be changed without notice. SHUGUAN will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. SHUGUAN assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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