



地址(Add):深圳福田区福华路福庆街鸿图大厦1602室
 RM 1602,Hongtu Bldge,Fuhua Rd, Futian Region,Shenzhen China
 电话(Tel):0755-3600718 3758073 邮编(PC):518033
 传真(Fax):0755-3376182 E-mail:szsunstr@public.szptt.net.cn
 网址: Http://www.sunstare.com/ 手机:(0)13902971329
 西安办事处电话:(0)13609291696 191-8454356
 北京办事处电话:(0)13501189838 191-8886650
 上海办事处电话:(0)13701955389 191-3789221

SEMICONDUCTOR UV SENSOR SC0065

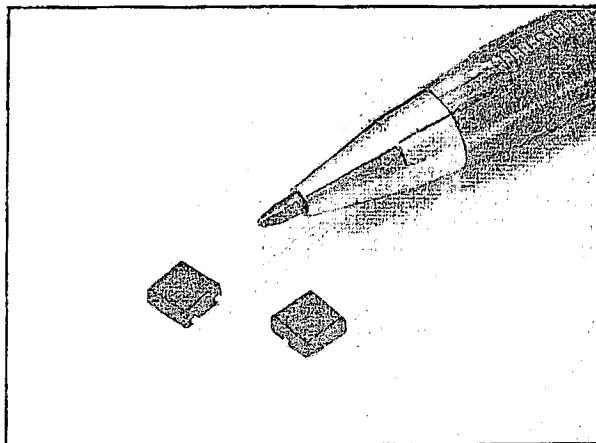
Small UV sensor with sensitivity only in the UV region

FEATURES

- Only sensitive to UV radiation
- Spectral response matches solar UV spectrum.
- Small and thin package

APPLICATIONS

- Measurement of solar UV radiation
- Light intensity monitors for various UV lamps
 (Hg lamps, sterilization lamps, black light, etc.)



The G5842 is a semiconductor UV sensor combining a GaAsP photodiode chip and a UV filter. Compared to the conventional UV sensors, this allows compactness and high volume production of the measurement system. Special requirements regarding packaging and peripheral circuit assembly are welcomed.

GENERAL RATINGS

Parameter	Symbol	Rating	Unit
Active Area	A	0.8 × 0.8	mm
Package	-	Plastic	-
Window	-	UV glass filter	-

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Reverse Voltage	VR Max.	5	V
Operating Temperature	Topr	-10 to +80	°C
Storage Temperature	Tstg	-20 to +85	°C

ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta=25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral Response Range	λ	More than 5 % of peak	-	260 to 400	-	nm
Peak Sensitivity Wavelength	λ_p		-	370	-	nm
Photo Sensitivity	S	$\lambda = \lambda_p$	-	60	-	mAW
Temperature Coefficient of Short Circuit Current	$\Delta I_{sc}/\Delta T$	Ta= -10 to +80 °C Black light ($\lambda_p=350$ nm)	-	-0.16	-	%/°C
Dark Current	ID	VR=5 V	-	-	50	pA
Temperature Coefficient of Dark Current	$\Delta I_D/\Delta T$	Ta= -10 to +80 °C	-	1.07	-	times/°C
Terminal Capacitance	Ct	VR=0 V, f=10 kHz	-	80	-	pF

SEMICONDUCTOR UV SENSOR SC0065

Figure 1: Spectral Response

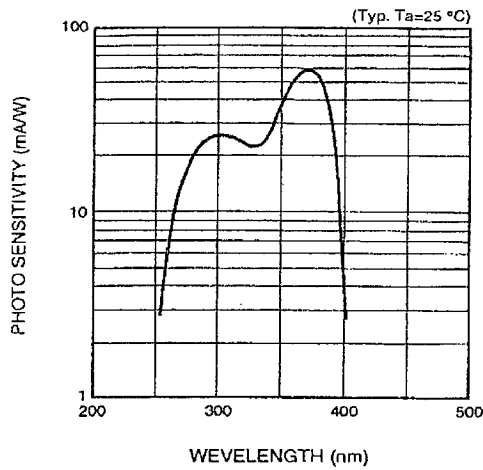
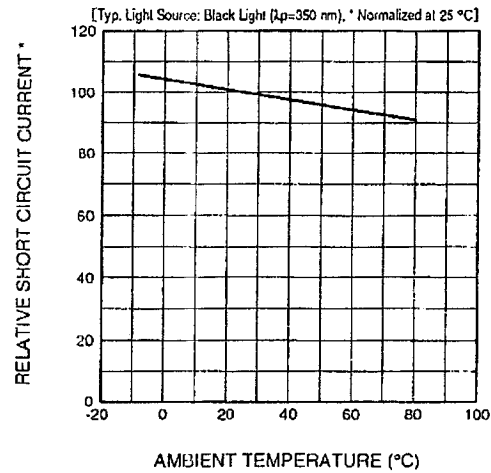


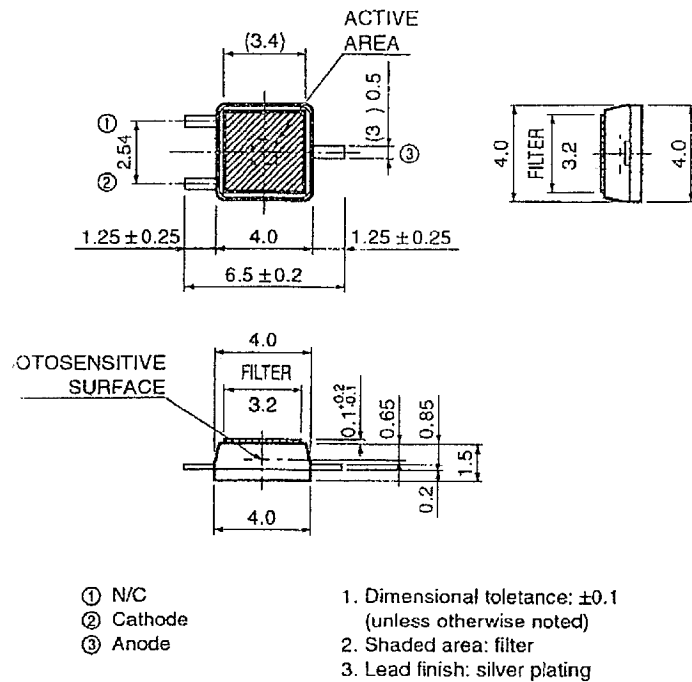
Figure 2: Temperature Characteristic for Short Circuit Current



KGPD0001EC

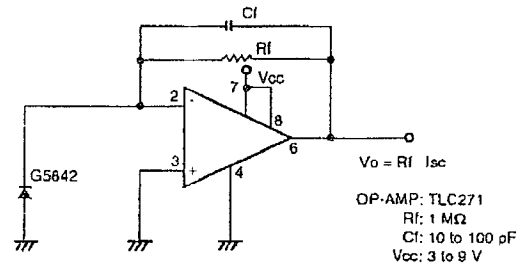
KGPD0002EB

Figure 3: Dimensional Outline (Unit: mm)



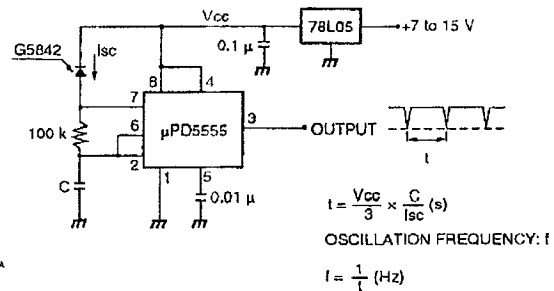
KGPD0004EA

Figure 4: Operating Circuit Example



KGPD0001EC

Figure 5: Application Circuit Example (Light to Frequency Conversion Circuit)



KGPD0002EF

Note for Handling

- UV filters may deteriorate during use at high temperature and high humidity. For example, if the UV sensor is operated at 40 °C and RH90 %, sensitivity variation may possibly exceed ±20 % for the G5842 after 3000-hours operation.
- The UV sensor should be soldered a 260 °C or below within 10 seconds.

欢迎索取免费详细资料、设计选型指南和光盘、样品；产品繁多未能尽录，欢迎来电查询。

[中国传感器科技信息网：HTTP://WWW.SENSOR-IC.COM/](http://WWW.SENSOR-IC.COM/)

[工控安防网：HTTP://WWW.PC-PS.NET/](http://WWW.PC-PS.NET/)

[消费电子专用电路网：HTTP://WWW.SUNSTARE.COM/](http://WWW.SUNSTARE.COM/)

E-MAIL：xjr5@163.com szss20@163.com

MSN：suns8888@hotmail.com

QQ：195847376

地址：深圳市福田区福华路福庆街鸿图大厦 1602 室

电话：0755-83376549 83376489 83387030 83387016

传真：0755-83376182 83338339 邮编：518033 手机：(0)13902971329

深圳展销部：深圳华强北路赛格电子市场 2583 号 TEL/FAX：
0755-83665529 25059422

北京分公司：北京海淀区知春路 132 号中发电子大厦 3097 号

TEL：010-81159046 82615020 13501189838 FAX：010-82613476

上海分公司：上海市北京东路 668 号上海赛格电子市场 2B35 号

TEL：021-28311762 56703037 13701955389 FAX：021-56703037

西安分公司：西安高新开发区 20 所(中国电子科技集团导航技术研究所)
西安劳动南路 88 号电子商城二楼 D23 号

TEL：029-81022619 13072977981 FAX:029-88789382

成都：TEL:(0)13717066236

技术支持：0755-83394033 13501568376