

光电传感器 S0-I-8073 规格书

S0-I-8073 Opto Sensor Specification Sheet

Spec. No. 规格书编号: S0481

Rev.: A

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版次 Rev.	变更内容 Revision History	发出日期 Issue Date	制作 Issue by	复核 Checked by	批准 Approved by
1.0	Original release	2016-1-7	李家葵	陈景标	李红炳
A	正式版发行	2019-5-17	李家葵	陈景标	陈石煤

1、Sensor Features (产品信息)

High reliability and low forward voltage IR LED.

(高可靠性和低正向电压的红外 LED)

High photo sensitivity and fast response Phototransistor.

(高灵敏度和快速反应的光电晶体管)

RoHS compliant.

(符合欧盟 RoHS 标准)

2、Sensor Absolute Maximum Ratings (最大绝对额定值)

(@Ta=25°C)

	Parameter (参数)	Symbol (符号)	Rating (数值)	Unit (单位)
Input (输入)	Reverse Voltage (反向电压)	V_R	5	V
	Peak Forward Current*1 (峰值电流)	I_{FP}	1.0	A
	Forward Current (正向电流)	I_F	50	mA
	Power Dissipation (功率消耗)	P_d	75	mW
Output (输出)	Collector-Emitter Voltage (C-E 最大耐压值)	V_{CEO}	30	V
	Emitter-Collector Voltage (E-C 最大耐压值)	V_{ECO}	5	V
	Output Current* (输出电流)	I_C	20	mA
	Power Dissipation at (or below) 25°C Free Air Temperature (功率消耗)	P_d	75	mW
Operating Temperature (工作温度)		T_{opr}	-20 ~ +95	°C
Storage Temperature (存储温度)		T_{stg}	-40 ~ +85	°C

*1 Pulse Width upon 100μS, duty ratio=0.01 (脉冲宽度 100 微秒, 占峰比 0.01) .



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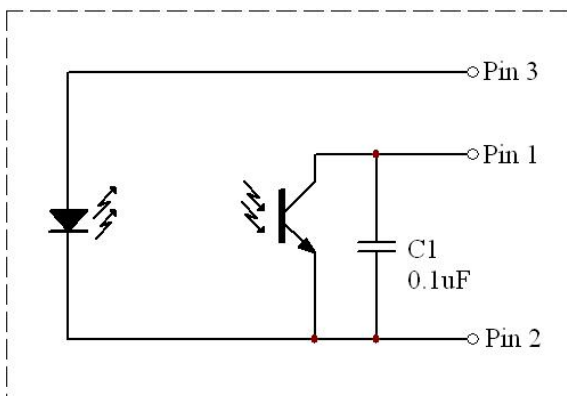
3、Electrical Characteristics (电气特性)

(@Ta=25°C)

Parameter (参数)		Symbol (标志)	Conditions (条件)	Min. (最小)	Typ. (典型)	Max. (最大)	Units (单位)
Input (输入)	Forward Voltage (正向电压)	V_F	$I_F=20mA$	—	1.2	1.5	V
	Reverse Current (反向电流)	I_R	$V_R=5V$	—	—	10	μA
	Peak Wavelength (峰值波长)	λ_P	$I_F=20mA$	—	940	—	nm
Transfer-Charac-Teristics (转换特性)	Collector Dark Current (暗电流)	I_D	$V_{CE}=10V$	—	—	100	nA
	Light path opened voltage (光开电压)	V_{OL}	Reference test conditions *1	—	—	0.4	V
	Light path closed voltage (光闭电压)	V_{OH}	Reference test conditions *1	0.9VCC	—	—	V
	Light Current (光电流)	I_L	$V_{CC}=3.3V$ $I_F=20mA$	1.0	—	10	mA
	Response Time (反应时间)	Rise Time (上升)	t_r	$V_{CE}=5V$ $I_C=1mA$ $R_L=1000\Omega$	—	15	—
Fall Time (下降)		t_f	—		15	—	μs

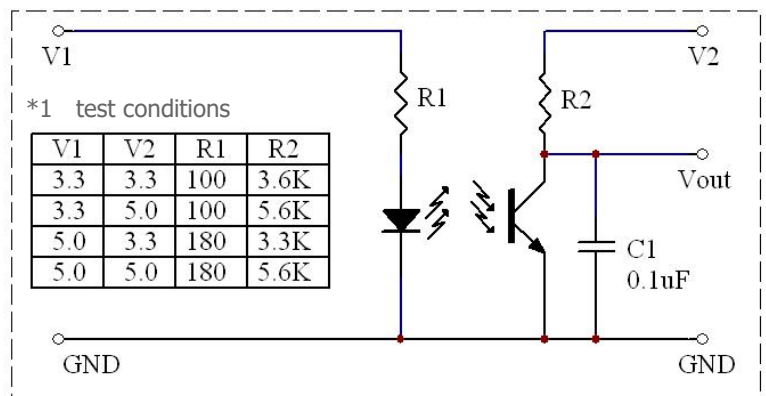
4、Schematic (电路示意图):

PCBA SCHEMATIC



FOR REFERENCE ONLY

Test Circuit



FOR REFERENCE ONLY



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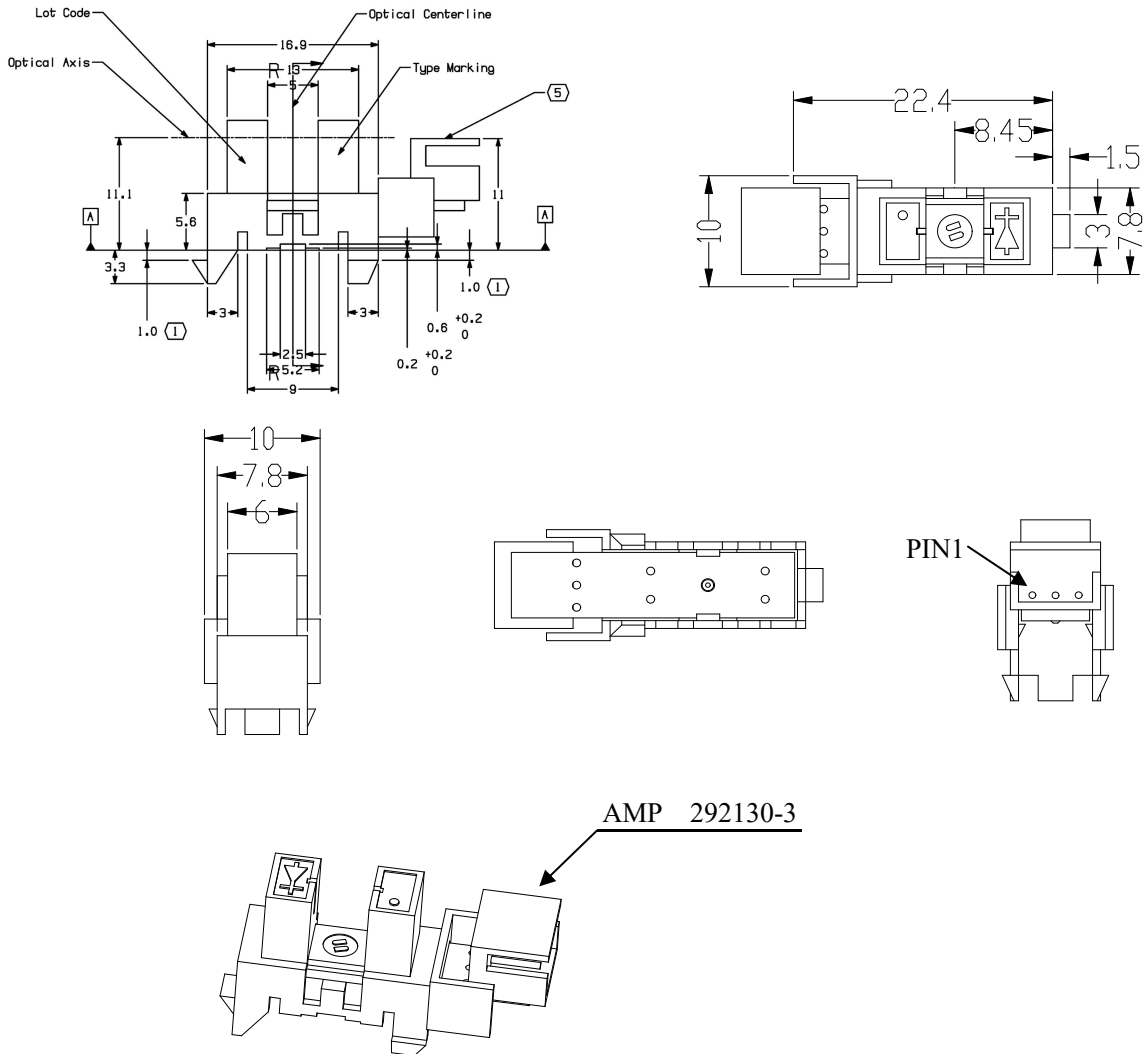
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5、Outline Dimension: (Unit:mm)

Tolerance: ±0.2

外形尺寸: (单位: 毫米)

公差: ±0.2



6、Connection (连接线):

PIN No.	Conduct
P1	Vout
P2	Ground
P3	VCC



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7、Inspection Standard 检验标准)

7-1. Light path opened voltage (Vol) 光开电压

7-2. Light current (IL) 光电流

All products should be inspected (所有的产品都要检查此项) .

8、Utility

8-1. This housing is not water-resistance-structure. Don't use the product in any liquid and/or don't wash the product, especially with any solvent. It may leads to damage or wrong operation.

(这个产品的外壳不是防水设计, 不能用于液体中, 或清洗产品, 特别是用有溶剂的清洗液。这有可能导致出现错误操作。)

8-2. Don't use dirty environment in which there is the dust observed by human eye. It may lead to wrong operation.

(不要用于有可见灰尘的恶劣环境, 这会导致错误操作。)

9、Package of Shipment (出货包装)

The shipping package follows to the Manufacturer standard (出货包装遵循生产商的标准) .

10、RoHS(2002/95/EC) (欧盟 RoHS 标准)

This product doesn't contain the below 6 items (产品不包含如下的 6 种物质) .

*Using for the excluded applications should be concluded as "no containing". (用于可被排除在外的应用的也可以标记为不 "包含"。)

1. Pb (铅) 2. Hg (汞) 3. Cd (镉) 4. Hexavalent chromium (6 价铬离子)

5. PBB (聚溴联苯) 6. PBDE (聚溴二苯醚)

11、Other Conditions (其他)

As a general rule, the Supplier warrants this product against defects in parts and workmanship for six months after shipment. The warranty is limited to the replacement of cell only but does not cover a loss or damage of products due to natural calamity or misuse even in the warranty period.

(通常, 我们对产品提供 6 个月的质保, 包括任何部分的故障和工艺缺陷。在质保期限内, 对于有故障的产品, 我们将提供一个良品作为替换, 但不包括因为自然灾害和人为过失造成的。)

Each term on this specification should be considered to be that is approved by a customer unless any change noted from a customer by document within three weeks after being issued.

(规格书中的每个条款都是经过客户确认的, 但不包括规格书发行后 3 个星期内, 客户以书面文件形式提供的任何改变。)



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