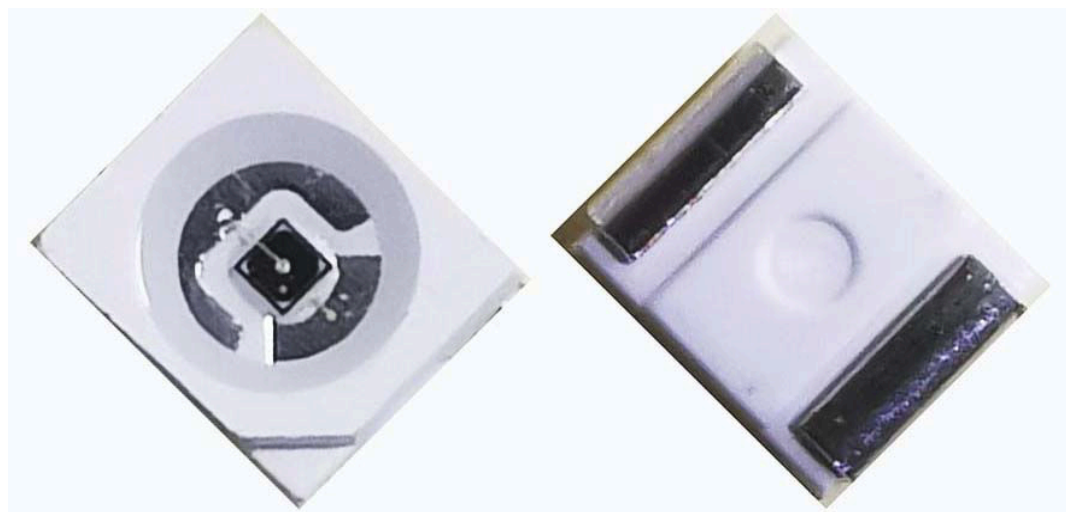


产 品 规 格 书

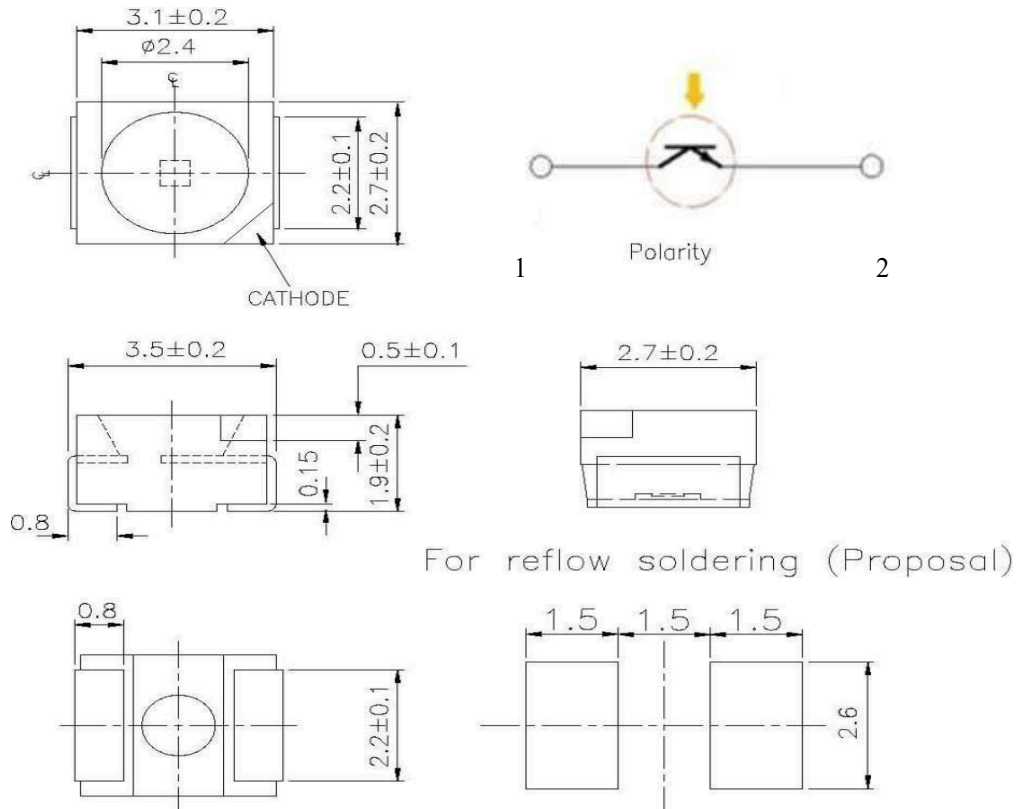
Product Specification

光敏三极管 (PT850-3528)



PT850-3528 (24)

■ 外形尺寸



注 Notes:

1. 所有尺寸都以毫米为单位 (All dimensions are in millimeters) .
2. 公差为±0.20 毫米除非另有说明 (Tolerance is ±0.20mm unless otherwise noted) .

■ 特征 Features

- ※ 接近人眼特点的光谱响应特性; (Near human eye photopic response) 。
 - ※ 对红外具有高抑制特性; (High IR rejection) 。
 - ※ 输出电流对光通量的高线性度; (Current output highly linear Vs light level) 。
 - ※ 温度特性稳定; (Temperature stable) 。内置暗电流消除电路, 暗电流极小; (Dark-current cancellation) 。
 - ※ 替代传统 CDS 光敏电阻, 不含镉、铅等有害物质, 符合欧盟 ROHS 标准 (Instead of the traditional , ,) 。
- CDS photosensitive resistance, contain cadmiumlead and hazardous substancesROHS compliant
- ※ 用于抗红外干扰类产品, 控制昼夜切换, 无需加套管、滤光片 (Dedicated to the anti-IR interference products, controls the switching of day and night, without adding casing, filters) 。

■ 绝对最大额定值 Absolute Maximum Ratings (Ta = 25°C)

| 参数 Parameter | 符号 Symbol | 最大额定值 Rating | 单位 Units |
|--------------------------------------|--------------|-----------------|-------------|
| 集电极发射极电压 Collector-Emitter Voltage | VCE0 | 30 | V |
| 发射极集电极电压 Emitter - Collector Voltage | VECO | 5 | V |
| 集电极电流 Collector Current | IC | 20 | mA |
| 工作环境温度 Operating Temperature | Topr | -25~+80 | °C |
| 储存环境温度 Storage Temperature | Tstg | -40~+85 | °C |
| 焊接温度 Lead Soldering Temperature | Tsol | 260 | °C |
| 功耗 Power Dissipation | PC | 70 | mW |

■ 光电特性 Electro-Optical characteristics (Ta=25°C)

| 参数 Parameter | 符号 Symbol | 条件 Condition | 最小值 Min. | 中间值 Typ. | 最大值 Max. | 单位 Units |
|---|--------------|--------------------------------------|-------------|-------------|-------------|-------------|
| 集电极发射极击穿电压 Collector-Emitter Breakdown Voltage | BVCEO | Ic=100 μ A Ee=0mW/cm ² | 30 | --- | --- | V |
| 发射极集电极击穿电压 Emitter-Collector Breakdown Voltage | VECO | IE=100 μ A Ee=0mW/cm ² | 5 | --- | --- | V |
| 集电极发射极饱和电压 Collector-Emitter Saturation Voltage | VCE(sta) | Ic=2mA Ee=1mW/cm ² | --- | --- | 0.2 | V |
| 启动延时 Rise time | Tr | VCE=5V Ic=1mA | --- | 15 | --- | μ S |
| 关闭延时 Fall Time | Tf | RL=1000 Ω | --- | 20 | --- | |
| 暗电流 Collector Dark Current | ICE0 | Ev=0mW/cm ² VCE=20V | --- | --- | 200 | nA |
| 亮电流 On StatCollector Current | IC(on) | Ev=10lux 590nmVCE=5v | 6 | --- | 12 | μ A |
| 接收峰值光谱 Wavelength of Peak Sensitivity | λ p | --- | 400 | 850 | 1100 | nm |

■ 感光特性 Photosensitivity

Fig.1 Collector Power Dissipation vs. Fig.2 Spectral Sensitivity Ambient

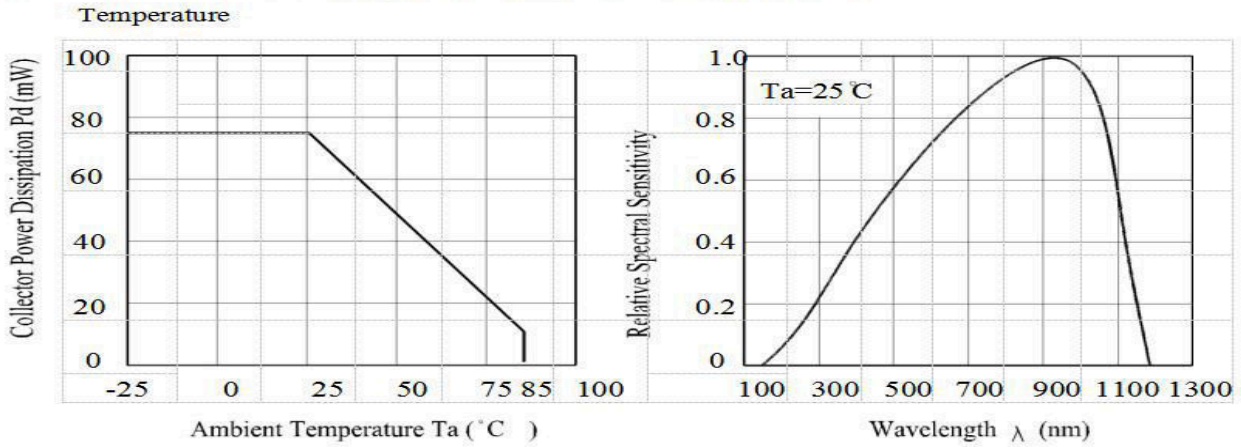


Fig.3 Relative Collector Current vs. Ambient Temperature

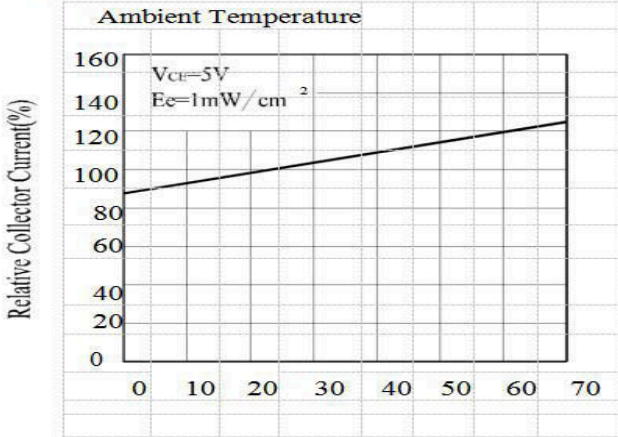


Fig.4 Collector Current vs. Irradiance

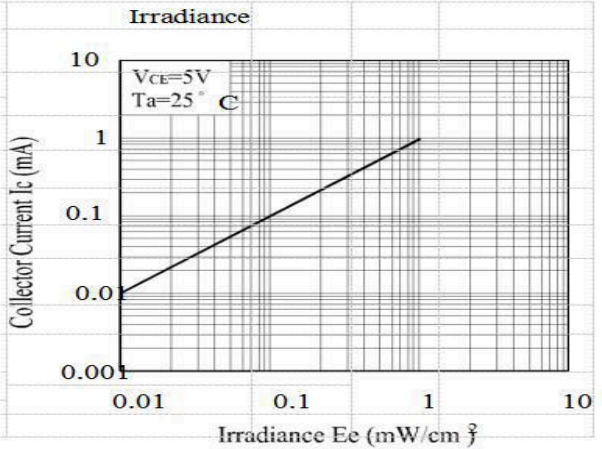


Fig.5 Collector Dark Current vs. Ambient Temperature

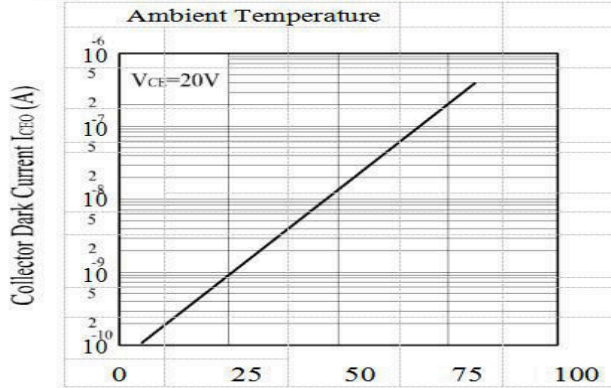
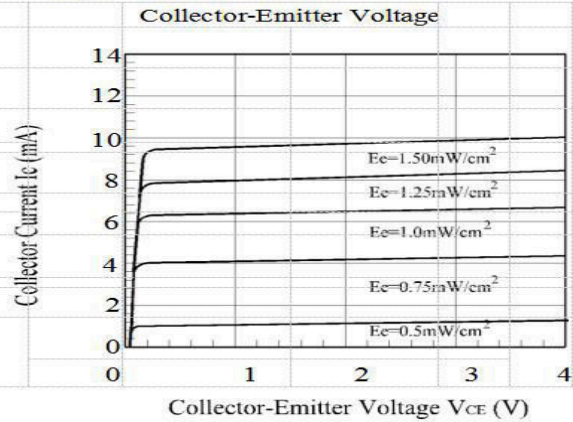
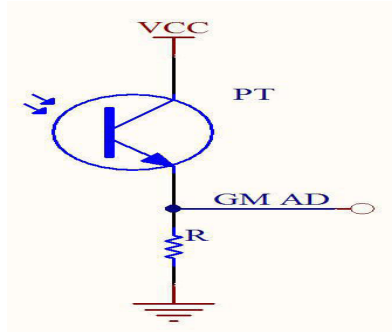


Fig.6 Collector Current vs. Collector-Emitter Voltage



■ 一般应用电路



■ 推荐焊接条件 Recommended Soldering Conditions

| 焊接模式 Mode | | 固定形式 Fixed form |
|------------------------------|------------------------------------|---|
| 手工焊接 Manually Soldering | 烙铁温度 Soldering Iron Temperature | 最高温度 300℃ (功率最大 30 瓦) 300℃ Max (30w Max) |
| | 焊接时间 Soldering Time | 时间不超过 3 秒 3 sec Max |
| | 焊接位置 Soldering Position | 大于 3mm (从焊点到胶体) 3mm Min. (Form soldering joint to colloid) |
| 波峰焊接 Wave Soldering | 预热 Preheat | 最高温度 100℃ 不超过 60 秒 100℃ Max. 60 sec. Max |
| | 温度 Temperature | 最高 260℃ 260℃ Max. |
| | 焊接时间 Soldering Time | 不超过 5 秒 5 sec Max |
| 锡炉焊接 Solder pot Soldering | 预热 Preheat | 最高温度 100℃ 不超过 60 秒 100℃ Max. 60 sec. Max |
| | 浸焊温度 Preheat Temperature | 最高 260℃ 260℃ Max. |
| | 浸焊时间 Soldering Time | 不超过 5 秒 5 sec Max |
| | 焊接位置 Soldering Position | 大于 2mm (从焊点到胶体) 2mm Min. (From soldering joint to colloid) |

备注：请严格按照产品承认书的焊接条件规范作业。(Note: please operate in strict accordance with the welding condition specification in the product acceptance letter.)

■ 注意事项 Precautions

储存 store

※该产品出厂后贮存的条件应为 0~+30℃、相对湿度小于 70%，密封贮存期限为 3 个月。若贮存超过 3 个月，则应放在带有氮气和干燥剂的密闭容器内，贮存时间可达一年（The product after the factory storage conditions should be 0 ~ +30 °C, relative humidity less than 70%, sealed storage period of 3 months. If stored for more than 3 months, it should be placed in a sealed container with nitrogen and desiccant for up to one year）；

※拆袋使用，应尽可能短时间内用完。若用不完，应满足贮存条件应为 0~+30℃、相对湿度不小于 60%，并在 2 天内安装完。产品支架是铁合金表面上镀银，银表面会受到腐蚀性气体等环境的影响，这将会导致产品焊接困难（Bundled use, should be used as soon as possible within a short time. If you can not finish, should meet the storage conditions should be 0 ~ +30 °C, relative humidity of not less than 60%, and installed in 2 days. Product stent is silver on the surface of silver, silver surface will be corrosive gases and other environmental impact, which will lead to product welding difficulties）。

安装 installation

※产品安装在 PCB 上，不能对引脚有压力施加（PCB board hole must be consistent with the product pin spacing, otherwise it will easily damage the product）。

焊接 welding

※胶体不可浸入锡槽内（Colloids can not be immersed in tin tanks）；

※加热过程中不能对引脚有施加压力（The pressure can not be applied to the pins during heating）；

※推荐焊接条件：波峰焊：120℃ <60s、260℃ <5s；手工焊：260℃ <5s、340℃ <3s（Recommended welding conditions: wave soldering: 120 °C <60s, 260 °C <5s; manual welding: 260 °C <5s, 340 °C <3s）。

清洗 Cleaning

※清洗产品时推荐使用酒精作为清洗剂。如使用其他清洗剂，需先确认清洗剂是否会腐蚀环氧体。氟利昂不能作为清洗剂；（Alcohol is recommended for cleaning products. If other cleaning agents are used, check if they will corrode the epoxy. Freon cannot be used as cleaning agent.）

※不可用水清洗，以免腐蚀引线，建议使用酒精；（Do not clean with water to avoid corroding the lead wire. Alcohol is recommended）

※本型号为静电敏感器件，要求佩带防静电腕带，所有的装置、设备、机器、桌子、地面都必须防静电接地。（This model is an electrostatic sensitive device. It is required to wear an anti-static wristband when using. All devices, equipment, machines, tables and floors must be anti-static grounded.）