**XL-IR**

# 目录

Catalog

电性参数
Electrical Characteristics.....3

典型特性曲线
Typical Characteristic Curves.....7

可靠性实验
Reliability Test Items And Conditions.....8

外形尺寸
Outline Dimensions.....9

包装
Packaging.....10

使用注意事项
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电性参数

## Electrical Characteristics

### Absolute Maximum Ratings Ta=25

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Supply Voltage | VDD | 6.0 | V |
| Operating ambient temperature | Topr | -20 C ~ +85 C | |
| Storage ambient temperature | Tstg | -40 C ~ +125 C | |
| Welding conditions | Tsol | Wave soldering 260℃ 6s<br>manual welding 300℃ 3s | |

### Initial Electrical Optical Characteristics Ta=25

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test conditions |
|---|---|---|---|---|---|---|
| Working current | ICC | 0.3 | 0.4 | 0.5 | mA | VDD=5V |
| receive distance | L 0 ° | 10 | 15 | - | M | / |
| | L 35 ° | 5 | 6 | - | M | |
| | L 35 ° | 5 | 6 | - | M | |
| Carrier Frequency | $f_o$ | - | 37.9 | - | KHZ | / |
| BPF<br>BPF width | $f_{BW}$ | - | 6 | - | KHZ | / |
| Low level output | $V_{ol}$ | - | - | 250 | mV | Isink=2.0mA |
| High level output | $V_{oh}$ | 4.5 | - | 5.0 | V | VCC=5V |
| Pulse width | $T_{pwl}$ | 400 | 600 | 800 | us | burst wave<br>Vin=500UVp-p |
| | $T_{PWH}$ | 400 | 640 | 800 | us | burst wave<br>Vin=50mVp-p |

Recommended usage conditions

| Parameter | Symbol | Min. | Ÿ ı è |
|---|---|---|---|

**接收距离分档:**

**Receive distance grading**

| 代码<br>Code | 最小值<br>Min | 最大值<br>Max | 单位<br>Unit | 测试条件<br>Test conditions |
|---|---|---|---|---|
| L1 | 6 | 8 | M | ICC=0.5mA |
| L2 | 10 | 15 | | |
| L3 | 15 | 20 | | |

**工作电压分档**

**Working voltage grading**

| 代码<br>Code | 最小值<br>Min | 最大值<br>Max | 单位<br>Unit | 测试条件<br>Test conditions |
|---|---|---|---|---|
| V1 | 2.5 | 5.5 | V | ICC=0.5mA |
| V2 | 2.7 | 5.5 | | |

**工作电流分档:**

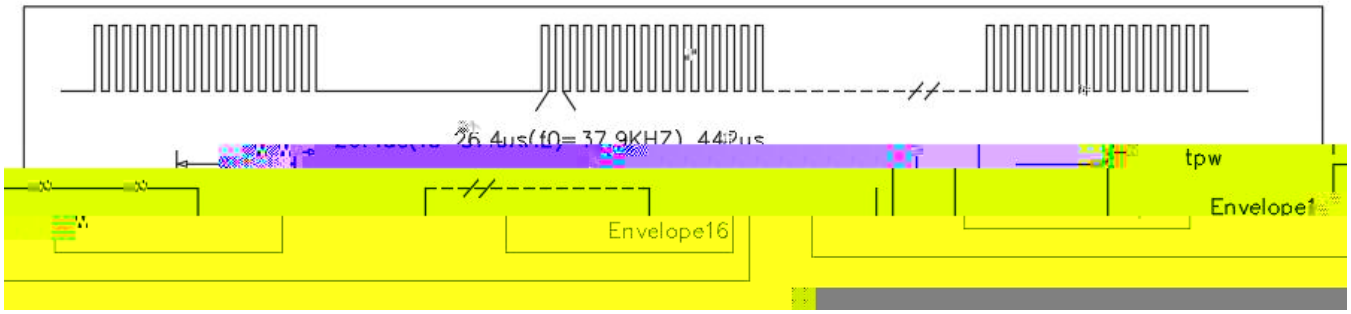
**Working current grading**

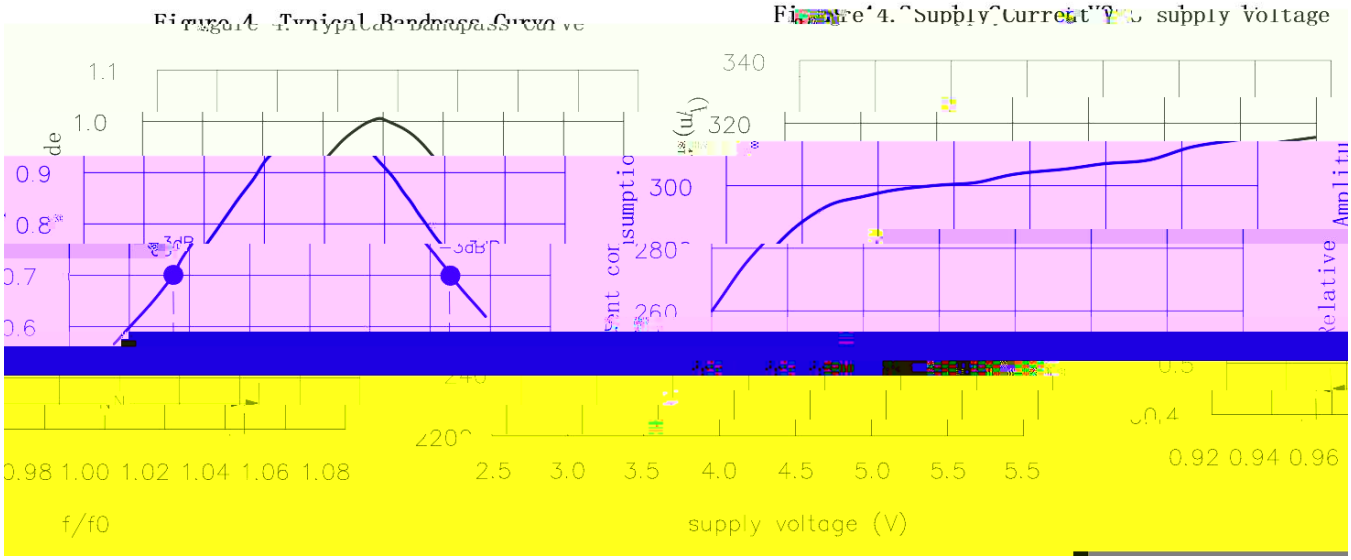
| 代码<br>Code | 最小值<br>Min | 最大值<br>Max | 单位<br>Unit | 测试条件<br>Test conditions |
|---|---|---|---|---|
| I1 | 0.3 | 0.5 | mA | VDD=5V |
| I2 | 0.4 | 0.7 | | |

# 典型特性曲线

## Typical Characteristics Curves

Test waveform



## 可靠性试验

## Reliability Test Items And Conditions

| * | Reliability Test Proje | | |
|---|---|---|---|
| | 260 ±5 | 5 | 20 |
| | 100PF 1.5KΩ, 4KV, | | 20 |

焊接(1)

## Guideline for Soldering (1)

1. 使用烙铁人手焊接

**Hand Soldering**

30W

300 3

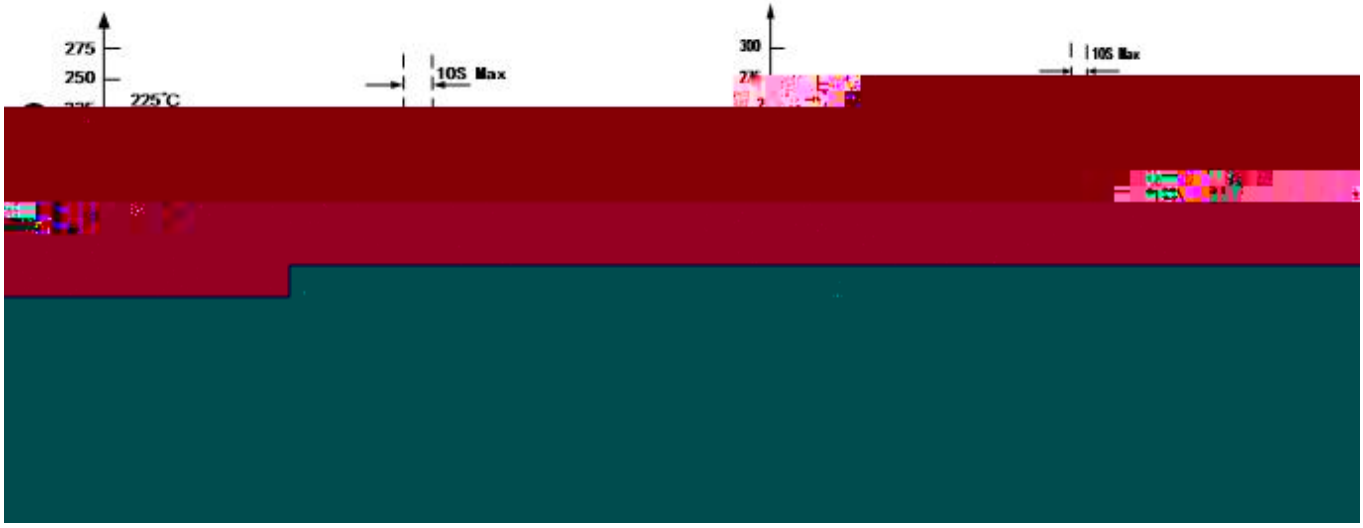
LED

Manual welding is recommended only for repair and heavy industry situations. A soldering iron of less than 30W is recommended to be used in Hand Soldering. Please keep the temperature of the soldering iron under 300 while soldering. Each terminal of the LED is to go for less than 3 second and for one time only.

Be careful because the damage of the product is often started at the time of the hand soldering.

**2. 回流焊接：**

**Reflow Soldering:** Use the conditions shown in the under Figure ofPb-Free Reflow Soldering.

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Reflow soldering should not be done more than two times.

. LED

Stress on the LEDs should be avoided during heating in soldering process.

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After soldering, do not deal with the product before its temperature drop down to room

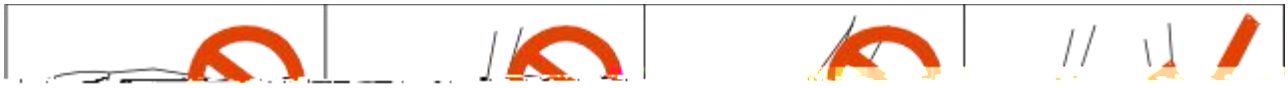
焊接指导（2

使用注意事项：

## Applications (3)

**Others**

When handling the product, touching the encapsulant with bare hands will not only contaminate its surface, but also affect on its optical characteristics. Excessive force to the encapsulant might result in catastrophic failure of the LEDs due to die breakage or wire deformation. For this reason, please do not put excessive stress on LEDs, especially when the LEDs are heated such as during Reflow Soldering.



LED

The epoxy resin of encapsulant is fragile, so please avoid scratch or friction over the epoxy resin surface. While handling the product with the