

L-513HDT BRIGHT RED

L-513GDT GREEN

L-513IDT HIGH EFFICIENCY RED

L-513EDT ORANGE

L-513SGDT SUPER BRIGHT GREEN

L-513YDT YELLOW

### Features

- LOW POWER CONSUMPTION.
- RELIABLE AND RUGGED.
- EXCELLENT UNIFORMITY OF LIGHT OUTPUT.
- SUITABLE FOR LEVEL INDICATOR.
- I.C. COMPATIBLE.
- LONG LIFE - SOLID STATE RELIABILITY.

### Description

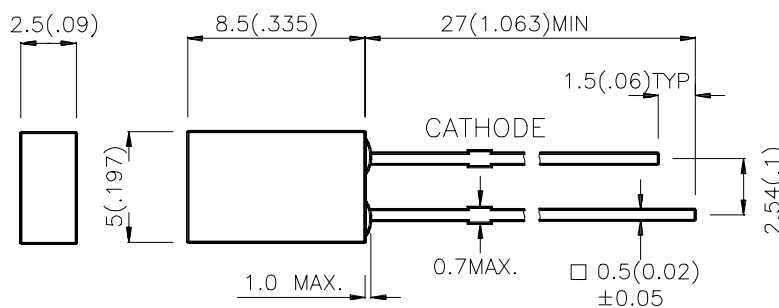
The Bright Red source color devices are made with Gallium Phosphide Red Light Emitting Diode.

The High Efficiency Red and Orange source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Green and Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01)$  unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

## Selection Guide

| Part No.  | Dice                            | Lens Type       | Iv (mcd)<br>@ 10 mA *20mA |      | Viewing<br>Angle |
|-----------|---------------------------------|-----------------|---------------------------|------|------------------|
|           |                                 |                 | Min.                      | Typ. |                  |
| L-513HDT  | BRIGHT RED (GaP)                | RED DIFFUSED    | 0.5                       | 1    | 110°             |
| L-513IDT  | HIGH EFFICIENCY RED (GaAsP/GaP) | RED DIFFUSED    | 3                         | 5    | 110°             |
| L-513EDT  | ORANGE (GaAsP/GaP)              | ORANGE DIFFUSED | 3                         | 5    | 110°             |
| L-513GDT  | GREEN (GaP)                     | GREEN DIFFUSED  | 2                         | 3    | 110°             |
| L-513YDT  | YELLOW (GaAsP/GaP)              | YELLOW DIFFUSED | 2                         | 3    | 110°             |
| L-513SGDT | SUPER BRIGHT GREEN (GaP)        | GREEN DIFFUSED  | *8                        | *10  | 110°             |

### Notes:

1.  $\theta 1/2$  is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. \* Luminous intensity with asterisk is measured at 20mA.

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

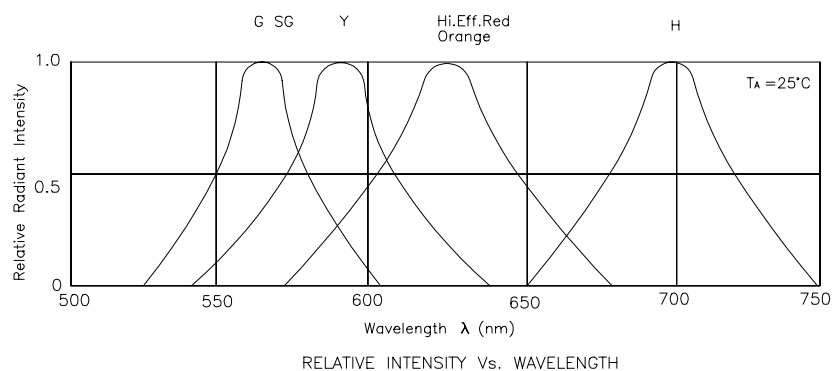
| Symbol                | Parameter               | Device                                                                               | Typ.                                    | Max.                                   | Units | Test Conditions |
|-----------------------|-------------------------|--------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------|-------|-----------------|
| $\lambda_{peak}$      | Peak Wavelength         | Bright Red<br>High Efficiency Red<br>Orange<br>Green<br>Yellow<br>Super Bright Green | 700<br>627<br>627<br>565<br>590<br>565  |                                        | nm    | IF=20mA         |
| $\lambda_D$           | Dominate Wavelength     | Bright Red<br>High Efficiency Red<br>Orange<br>Green<br>Yellow<br>Super Bright Green | 660<br>625<br>625<br>568<br>588<br>568  |                                        | nm    | IF=20mA         |
| $\Delta\lambda_{1/2}$ | Spectral Line Halfwidth | Bright Red<br>High Efficiency Red<br>Orange<br>Green<br>Yellow<br>Super Bright Green | 45<br>45<br>45<br>30<br>35<br>30        |                                        | nm    | IF=20mA         |
| C                     | Capacitance             | Bright Red<br>High Efficiency Red<br>Orange<br>Green<br>Yellow<br>Super Bright Green | 40<br>15<br>15<br>15<br>20<br>15        |                                        | pF    | VF=0V;f=1MHz    |
| V <sub>F</sub>        | Forward Voltage         | Bright Red<br>High Efficiency Red<br>Orange<br>Green<br>Yellow<br>Super Bright Green | 2.25<br>2.0<br>2.0<br>2.2<br>2.1<br>2.2 | 2.5<br>2.5<br>2.5<br>2.5<br>2.5<br>2.5 | V     | IF=20mA         |
| I <sub>R</sub>        | Reverse Current         | All                                                                                  |                                         | 10                                     | uA    | VR = 5V         |

## Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

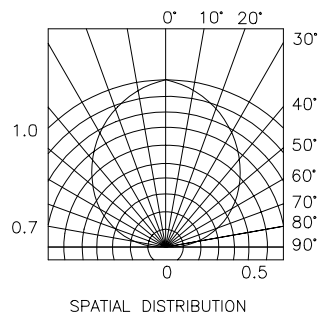
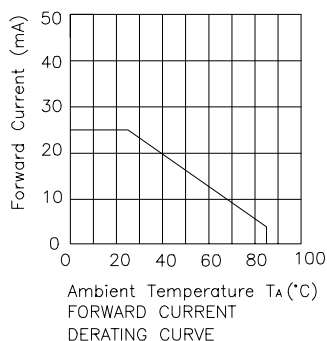
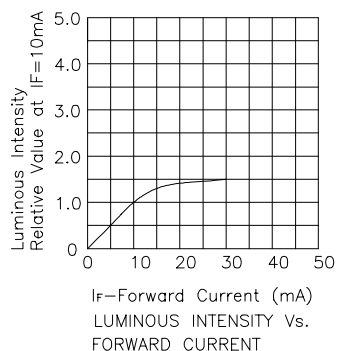
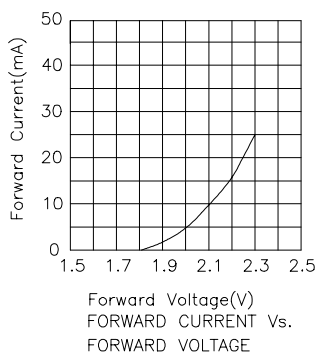
| Parameter                     | Bright Red                                 | High Efficiency Red | Orange | Green | Yellow | Super Bright Green | Units |
|-------------------------------|--------------------------------------------|---------------------|--------|-------|--------|--------------------|-------|
| Power dissipation             | 120                                        | 105                 | 105    | 105   | 105    | 105                | mW    |
| DC Forward Current            | 25                                         | 30                  | 30     | 25    | 30     | 25                 | mA    |
| Peak Forward Current [1]      | 120                                        | 160                 | 160    | 140   | 140    | 140                | mA    |
| Reverse Voltage               | 5                                          | 5                   | 5      | 5     | 5      | 5                  | V     |
| Operating/Storage Temperature | $-40^\circ\text{C}$ To $+85^\circ\text{C}$ |                     |        |       |        |                    |       |
| Lead Solder Temperature [2]   | 260°C For 5 Seconds                        |                     |        |       |        |                    |       |

Notes:

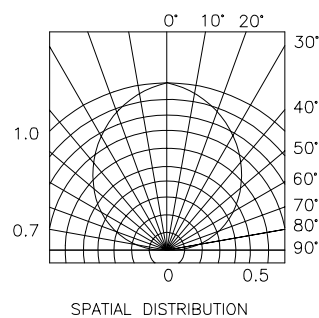
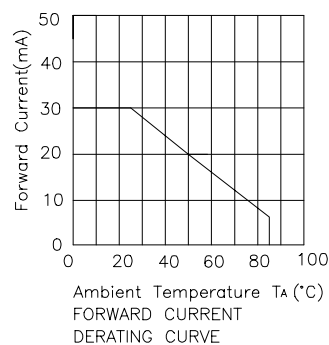
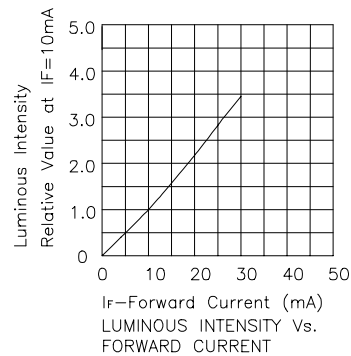
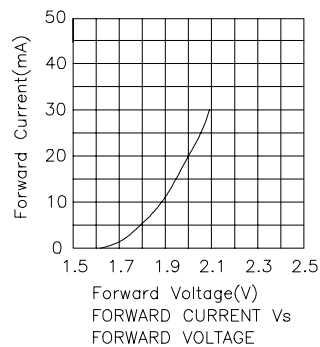
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



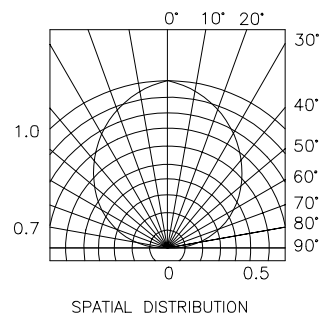
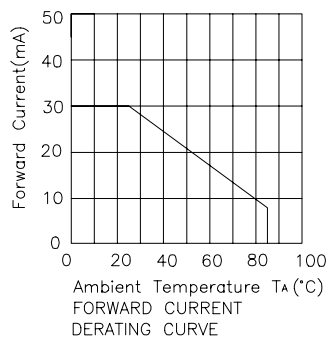
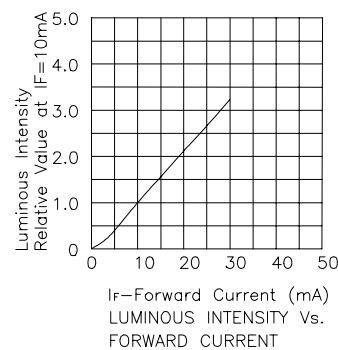
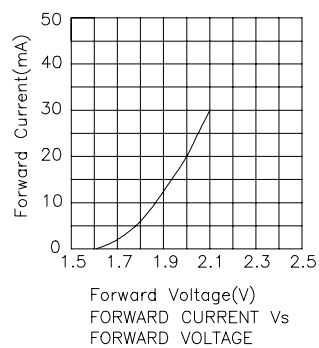
## Bright Red L-513HDT



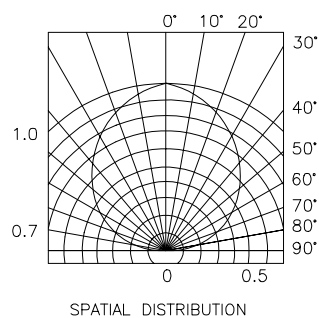
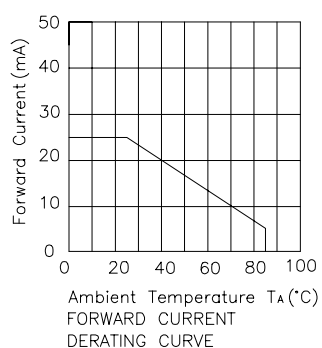
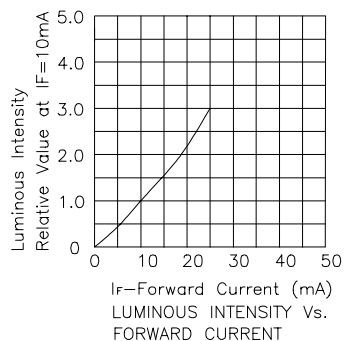
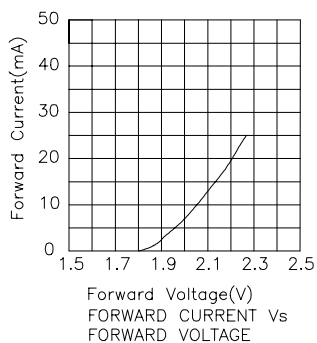
## High Efficiency Red L-513IDT



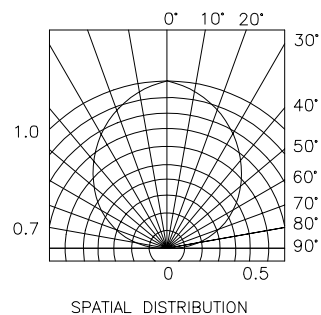
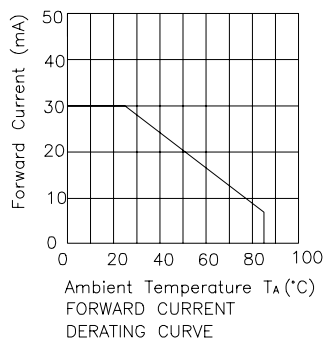
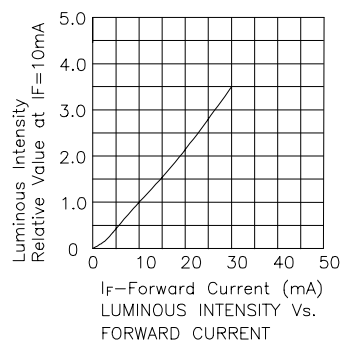
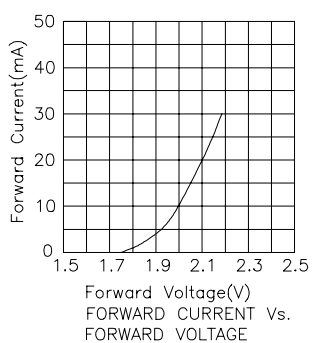
## Orange L-513EDT



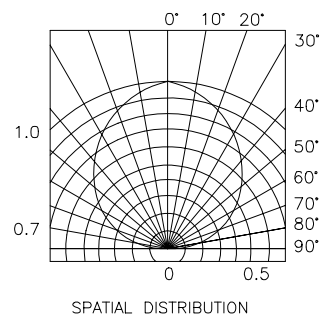
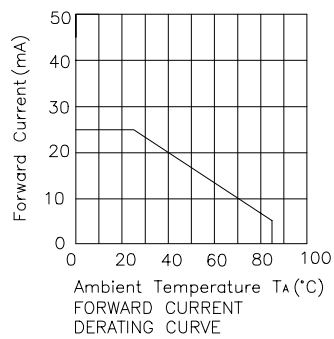
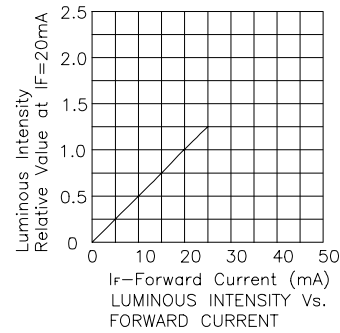
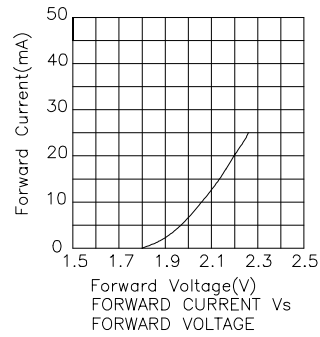
## Green L-513GDT



## Yellow L-513YDT



## Super Bright Green L-513SGDT





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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