

DLx/6ID HIGH EFFICIENCY RED DLx/6GD GREEN
 DLx/6SGD SUPER BRIGHT GREEN DLx/6YD YELLOW
 DLx/6SRD SUPER BRIGHT RED

Features

- 12 PINS.
- HIGH LUMINOUS INTENSITY.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- CATEGORIZED FOR LUMINOUS INTENSITY.
- EXCELLENT ON/OFF CONTRAST.
- EASY MOUNTING ON P.C. BOARD OR SOCKETS.
- SOLID STATE RELIABILITY.

Description

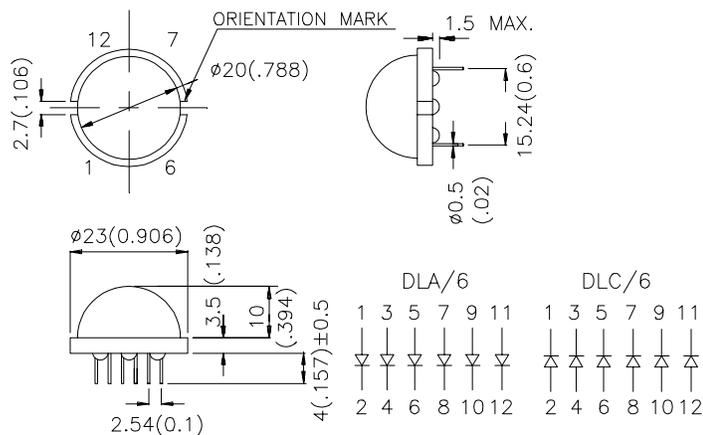
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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.

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

Package Dimensions & Internal Circuit Diagram



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 | I _v (mcd) @10 mA *20mA | | Viewing Angle |
|----------------------|---------------------------------|-----------------|--------------------------------------|------|------------------|
| | | | Min. | Typ. | θ1/2 |
| DLA/6ID DLC/6ID | HIGH EFFICIENCY RED (GaAsP/GaP) | RED DIFFUSED | 12 | 50 | 120° |
| DLA/6GD DLC/6GD | GREEN (GaP) | GREEN DIFFUSED | 20 | 80 | 120° |
| DLA/6YD DLC/6YD | YELLOW (GaAsP/GaP) | YELLOW DIFFUSED | 12 | 50 | 120° |
| DLA/6SRD DLC/6SRD | SUPER BRIGHT RED (GaAlAs) | RED DIFFUSED | *100 | *400 | 120° |
| DLA/6SGD DLC/6SGD | SUPER BRIGHT GREEN (GaP) | GREEN DIFFUSED | *70 | *200 | 120° |

Notes:

1. θ1/2 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_A=25°C

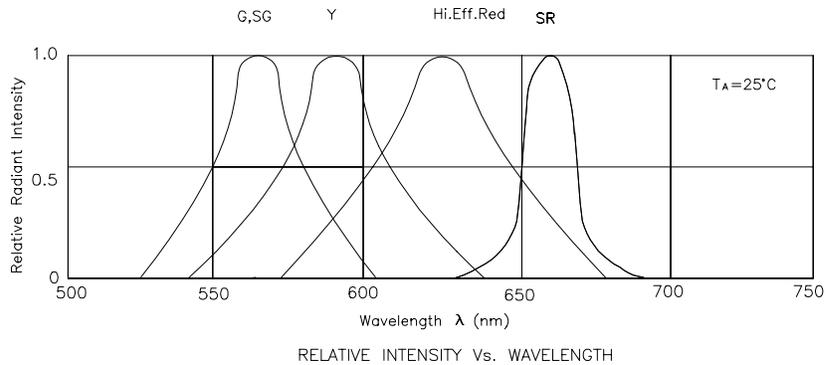
| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|-------------------|-------------------------|--|----------------------------------|---------------------------------|-------|-----------------|
| λ _{peak} | Peak Wavelength | High Efficiency Red Green Yellow Super Bright Red Super Bright Green | 627 565 590 660 565 | | nm | IF=20mA |
| λ _D | Dominate Wavelength | High Efficiency Red Green Yellow Super Bright Red Super Bright Green | 625 568 588 640 568 | | nm | IF=20mA |
| Δλ _{1/2} | Spectral Line Halfwidth | High Efficiency Red Green Yellow Super Bright Red Super Bright Green | 45 30 35 20 30 | | nm | IF=20mA |
| C | Capacitance | High Efficiency Red Green Yellow Super Bright Red Super Bright Green | 15 15 20 45 15 | | pF | VF=0V;f=1MHz |
| V _F | Forward Voltage | High Efficiency Red Green Yellow Super Bright Red Super Bright Green | 2.0 2.2 2.1 1.85 2.2 | 2.5 2.5 2.5 2.5 2.5 | V | IF=20mA |
| I _R | Reverse Current | All | | 10 | uA | VR = 5V |

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

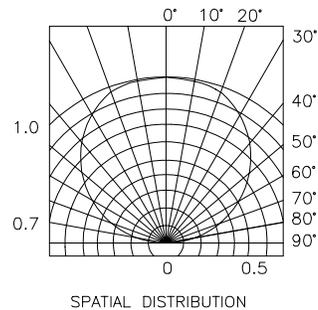
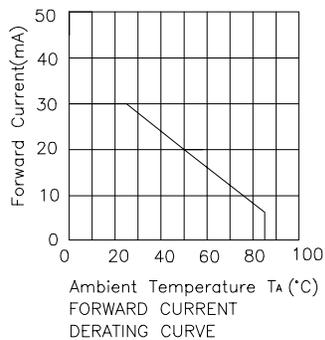
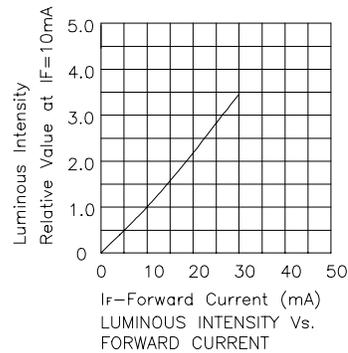
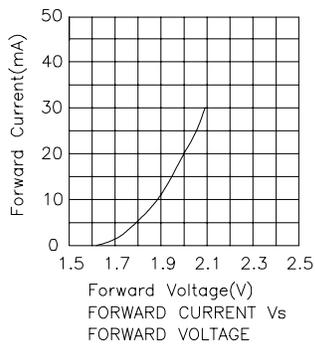
| Parameter | High Efficiency Red | Green | Yellow | Super Bright Red | Super Bright Green | Units |
|-------------------------------|---------------------|-------|--------|------------------|--------------------|-------|
| Power dissipation | 105 | 105 | 105 | 100 | 105 | mW |
| DC Forward Current | 30 | 25 | 30 | 30 | 25 | mA |
| Peak Forward Current [1] | 160 | 140 | 140 | 155 | 140 | mA |
| Reverse Voltage | 5 | 5 | 5 | 5 | 5 | V |
| Operating/Storage Temperature | -40°C To +85°C | | | | | |
| Lead Solder Temperature [2] | 260°C For 5 Seconds | | | | | |

Notes:

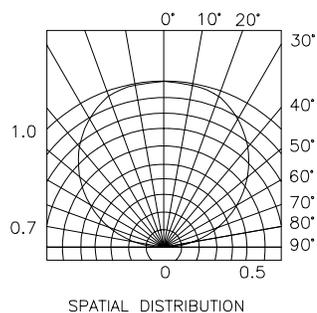
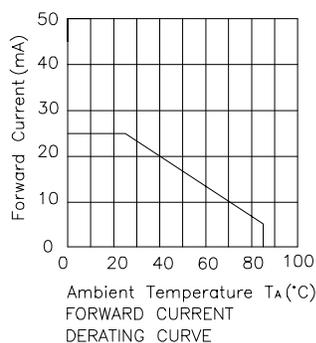
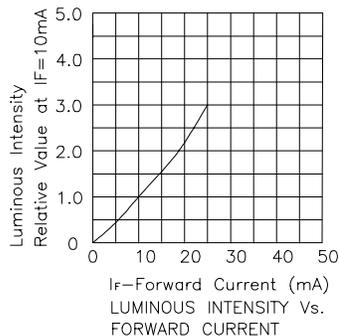
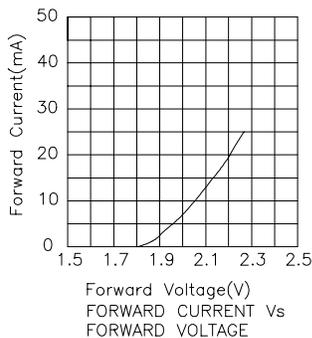
- 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



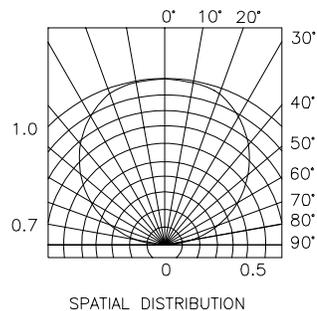
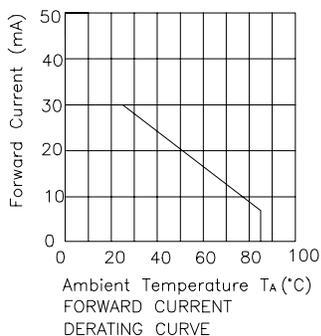
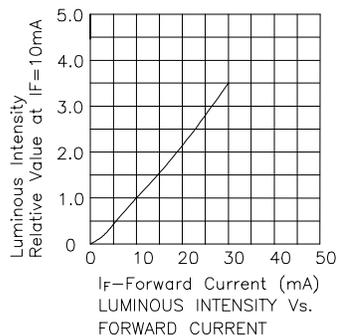
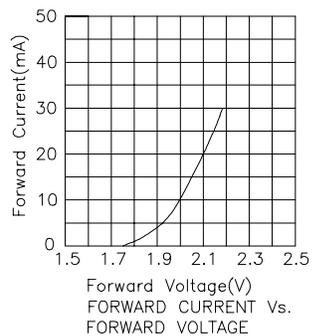
High Efficiency Red DLA/6ID,DLC/6ID



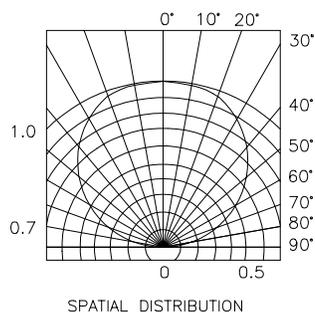
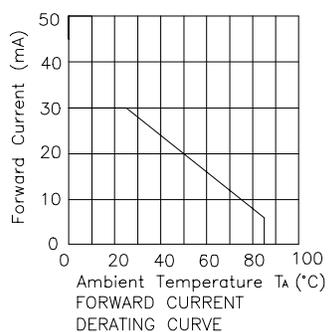
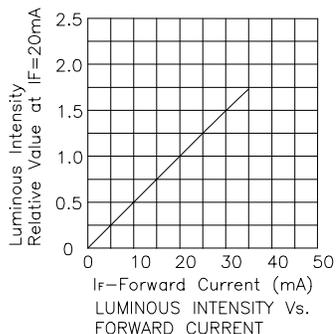
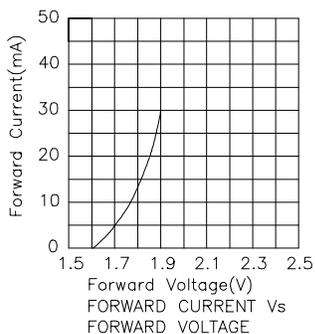
Green DLA/6GD,DLC/6GD



Yellow DLA/6YD,DLC/6YD



Super Bright Red DLA/6SRD,DLC/6SRD



Super Bright Green DLA/6SGD,DLC/6SGD

