

| | |
|-----------|---------------------|
| DC-10EWA | HIGH EFFICIENCY RED |
| DC-10GWA | GREEN |
| DC-10YWA | YELLOW |
| DC-10SRWA | SUPER BRIGHT RED |
| DC-7G3HWA | BRIGHT RED |

Features

- SUITABLE FOR LEVEL INDICATORS.
- LOW CURRENT OPERATION.
- EXCELLENT ON/OFF CONTRAST.
- WIDE VIEWING ANGLE.
- END STACKABLE.
- MECHANICALLY RUGGED.
- BI-COLOR VERSION AVAILABLE.
- DIFFERENT COLORS IN ONE UNIT AVAILABLE.
- STANDARD : GRAY FACE, WHITE SEGMENT

Description

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

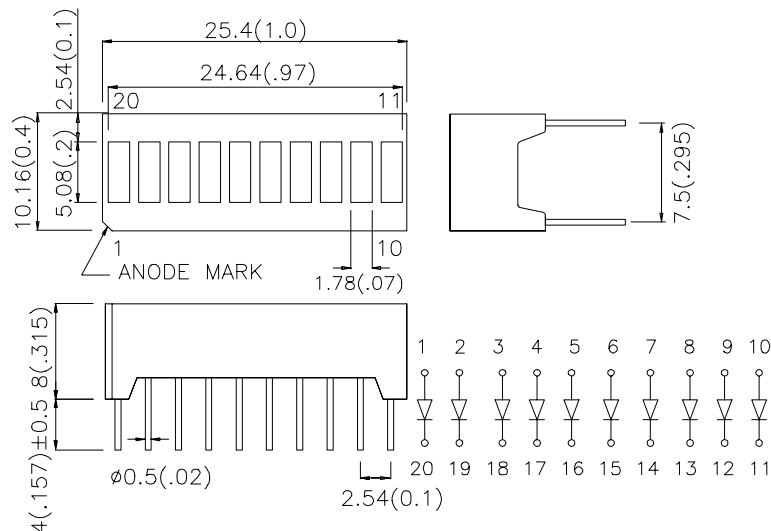
The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange 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 | Iv (ucd) @ 10 mA | | Description |
|-----------|---------------------------------|---------------------|-------|--|
| | | Min. | Typ. | |
| DC-10EWA | HIGH EFFICIENCY RED (GaAsP/GaP) | 2200 | 9000 | 10 Segments Bargraph-Display |
| DC-10GWA | GREEN (GaP) | 3600 | 14000 | |
| DC-10YWA | YELLOW (GaAsP/GaP) | 2200 | 9000 | |
| DC-10SRWA | SUPER BRIGHT RED (GaAlAs) | 9000 | 31000 | |
| DC-7G3HWA | GREEN (GaP) | 2200 | 9000 | 10 Segments Bargraph-Display 7 x Green 3 x Red |
| | BRIGHT RED (GaP) | 900 | 2200 | |

Electrical / Optical Characteristics at T_A=25°C

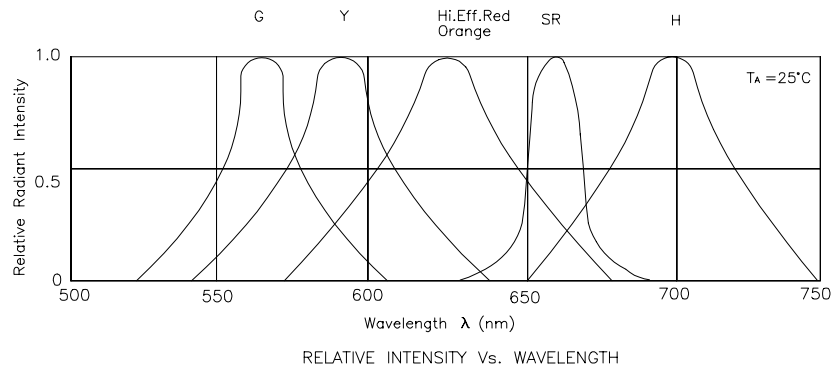
| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|-----------------------|-------------------------|--|-----------------------------------|---------------------------------|-------|---------------------------|
| λ_{peak} | Peak Wavelength | Bright Red High Efficiency Red Green Yellow Super Bright Red | 700 627 565 590 660 | | nm | IF=20mA |
| λ_D | Dominant Wavelength | Bright Red High Efficiency Red Green Yellow Super Bright Red | 660 625 568 588 640 | | nm | IF=20mA |
| $\Delta\lambda_{1/2}$ | Spectral Line Halfwidth | Bright Red High Efficiency Red Green Yellow Super Bright Red | 45 45 30 35 20 | | nm | IF=20mA |
| C | Capacitance | Bright Red High Efficiency Red Green Yellow Super Bright Red | 40 15 15 20 45 | | pF | V _F =0V;f=1MHz |
| V _F | Forward Voltage | Bright Red High Efficiency Red Green Yellow Super Bright Red | 2.25 2.0 2.2 2.1 1.85 | 2.5 2.5 2.5 2.5 2.5 | V | IF=20mA |
| I _r | Reverse Current | All | | 10 | uA | V _R = 5V |

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

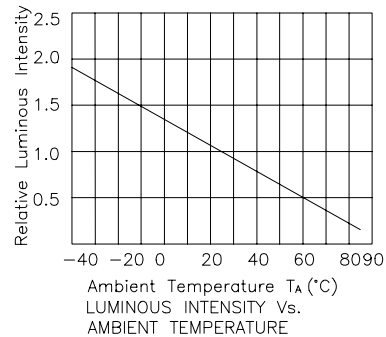
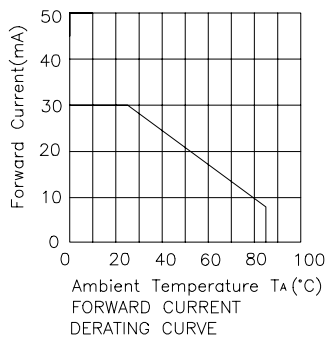
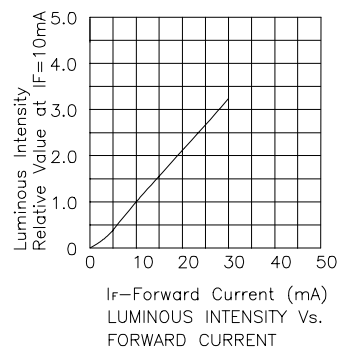
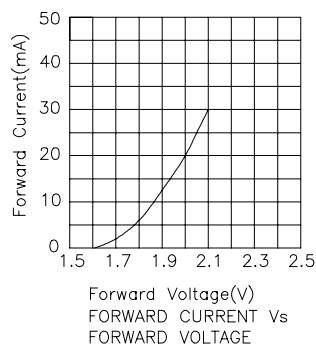
| Parameter | Bright Red | High Efficiency Red | Green | Yellow | Super Bright Red | Units |
|-------------------------------|---------------------|---------------------|-------|--------|------------------|-------|
| Power dissipation | 120 | 105 | 105 | 105 | 100 | mW |
| DC Forward Current | 25 | 30 | 25 | 30 | 30 | mA |
| Peak Forward Current [1] | 120 | 160 | 140 | 140 | 155 | 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:

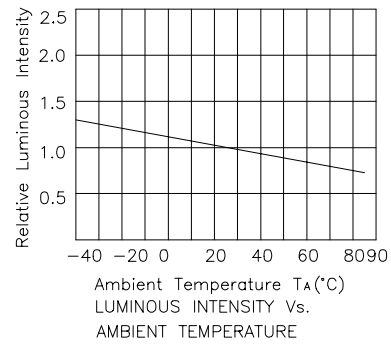
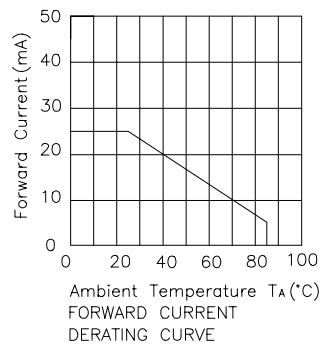
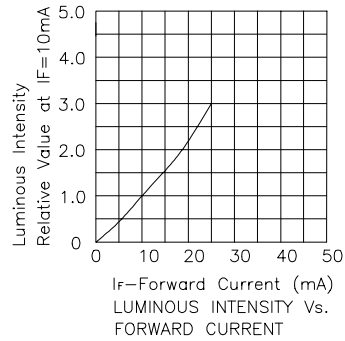
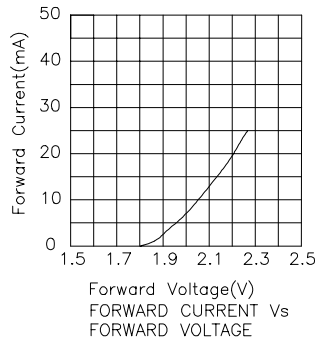
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



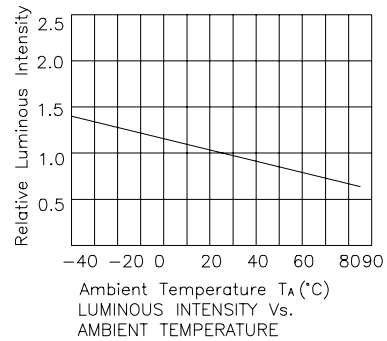
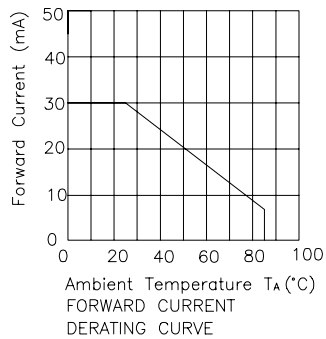
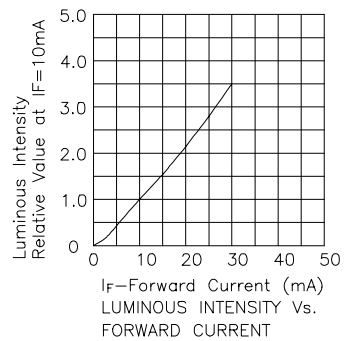
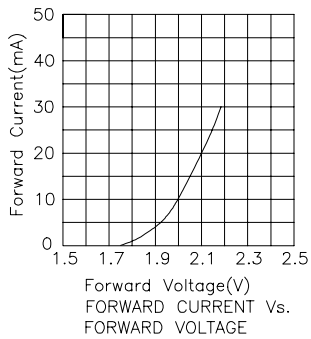
High Efficiency Red



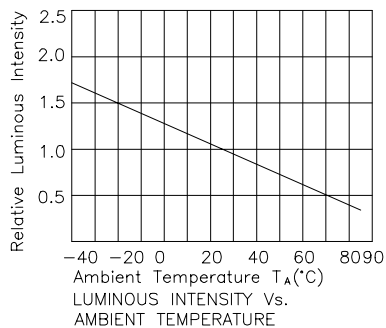
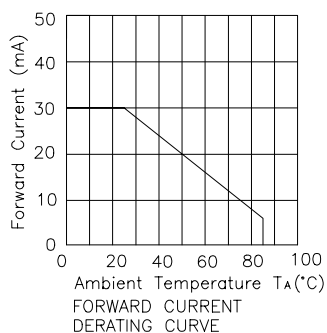
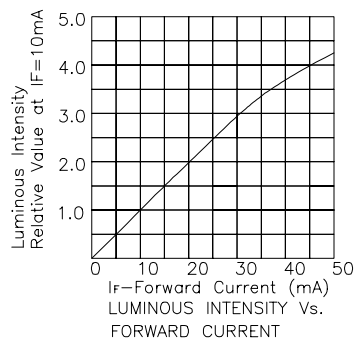
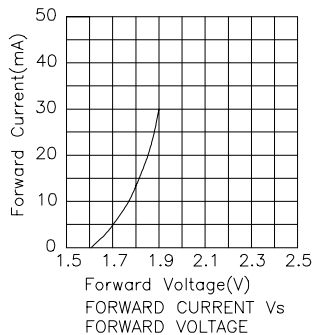
Green



Yellow



Super Bright Red



Bright Red

