

SA04-11EWA/GWA/YWA/SRWA
 SC04-11EWA/GWA/YWA/SRWA
 SA04-12EWA/GWA/YWA/SRWA
 SC04-12EWA/GWA/YWA/SRWA

Features

- 0.4 INCH DIGIT HEIGHT.
- LOW CURRENT OPERATION.
- EXCELLENT CHARACTER APPEARANCE.
- EASY MOUNTING ON P.C. BOARDS OR SOCKETS.
- I.C. COMPATIBLE.
- CATEGORIZED FOR LUMINOUS INTENSITY, YELLOW AND GREEN CATEGORIZED FOR COLOR.
- MECHANICALLY RUGGED.
- STANDARD : GRAY FACE, WHITE SEGMENT.

Description

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

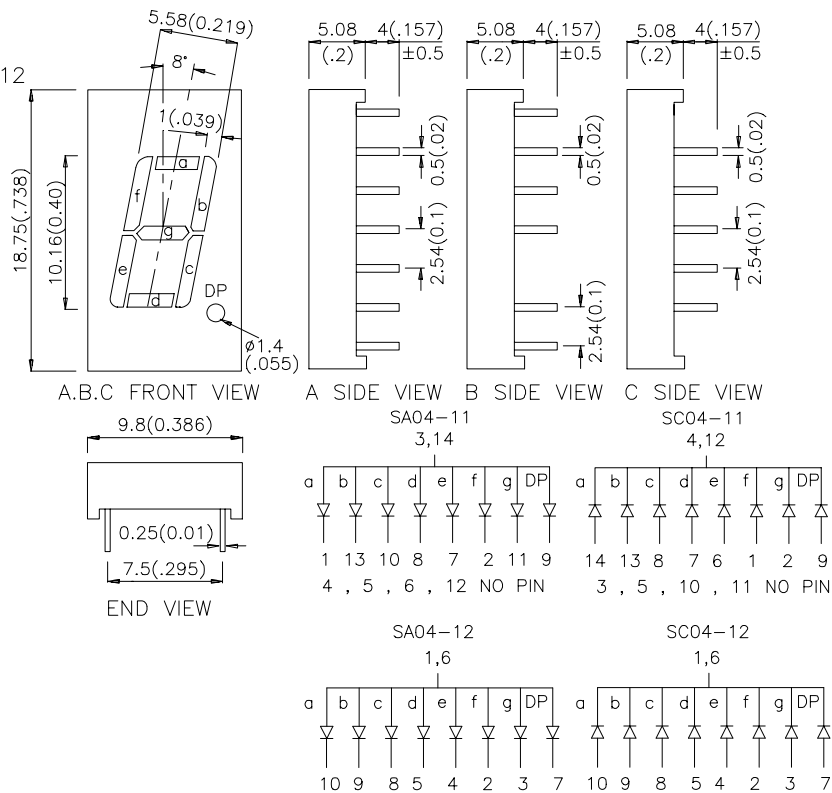
The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

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

A: SA04-11
 B: SC04-11
 C: SA/SC04-12



Notes:

1. All dimensions are in millimeters (inches), Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
2. Specifications are subject to change without notice.

Selection Guide

| Part No. | Dice | Lens Type | Iv (ucd) @ 10 mA | | Description |
|----------------------------|------------------------------------|----------------|---------------------|-------|-----------------------------------|
| | | | Min. | Typ. | |
| SA04-11EWA SA04-12EWA | HIGH EFFICIENCY RED (GaAsP/GaP) | WHITE DIFFUSED | 3000 | 8000 | Common Anode.Rt.Hand.Decimal |
| SC04-11EWA SC04-12EWA | | | | | Common Cathode.Rt.Hand.Decimal |
| SA04-11GWA SA04-12GWA | GREEN (GaP) | WHITE DIFFUSED | 3600 | 12000 | Common Anode.Rt.Hand.Decimal |
| SC04-11GWA SC04-12GWA | | | | | Common Cathode.Rt.Hand.Decimal |
| SA04-11YWA SA04-12YWA | YELLOW (GaAsP/GaP) | WHITE DIFFUSED | 1900 | 4700 | Common Anode.Rt.Hand.Decimal |
| SC04-11YWA SC04-12YWA | | | | | Common Cathode.Rt.Hand.Decimal |
| SA04-11SRWA SA04-12SRWA | SUPER BRIGHT RED (GaAlAs) | WHITE DIFFUSED | 8000 | 18000 | Common Anode.Rt.Hand.Decimal |
| SC04-11SRWA SC04-12SRWA | | | | | Common Cathode.Rt.Hand.Decimal |

Electrical / Optical Characteristics at T_A=25°C

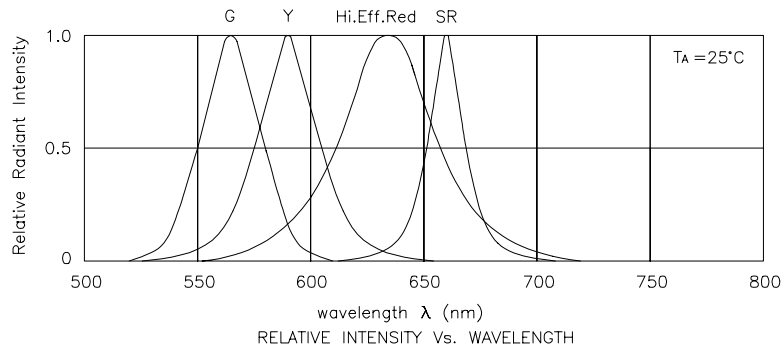
| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|-----------------------|--------------------------|--|---------------------------|--------------------------|-------|---------------------------|
| λ_{peak} | Peak Wavelength | High Efficiency Red Green Yellow Super Bright Red |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

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

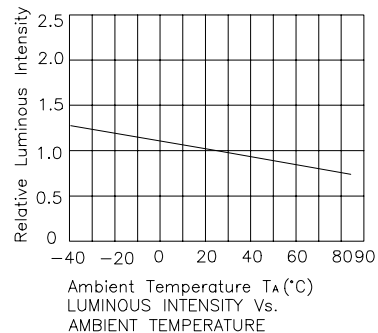
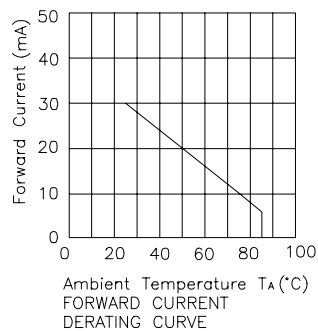
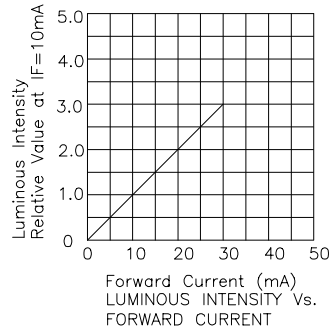
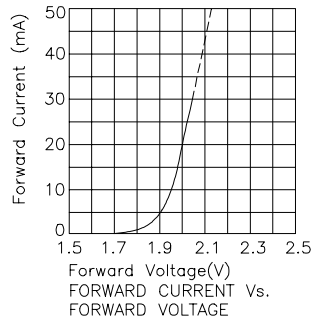
| Parameter | High Efficiency Red | Green | Yellow | Super Bright Red | Units |
|-------------------------------|---------------------|-------|--------|------------------|-------|
| Power dissipation | 105 | 105 | 105 | 100 | mW |
| DC Forward Current | 30 | 25 | 30 | 30 | mA |
| Peak Forward Current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

Notes:

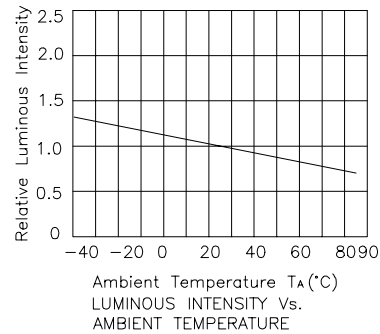
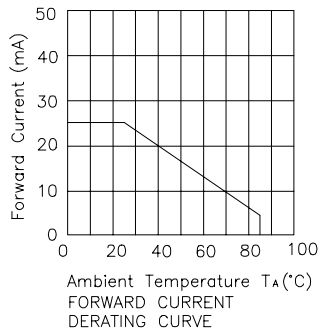
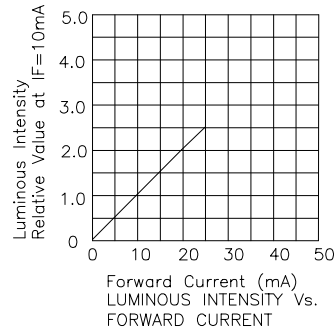
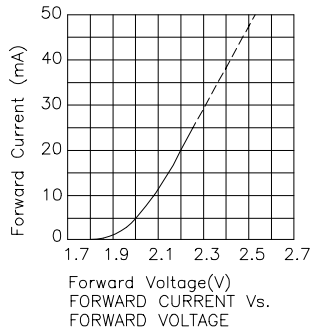
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2mm below package base.



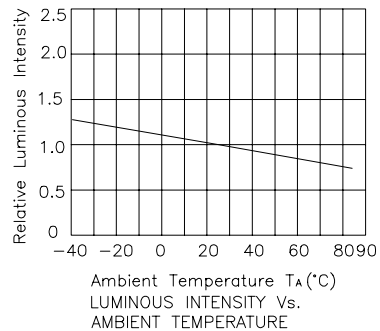
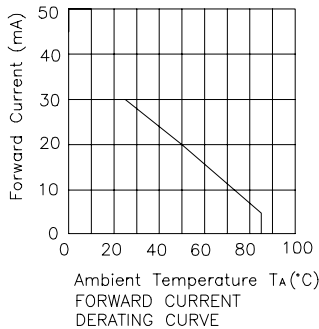
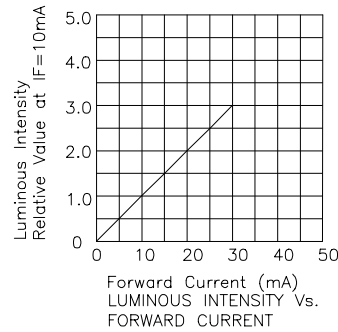
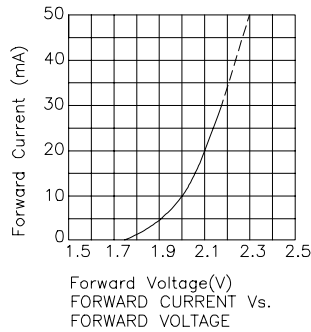
High Efficiency Red



Green



Yellow



Super Bright Red

