

SA52-11EWA / SC52-11EWA
 SA52-11SRWA / SC52-11SRWA
 SA52-11YWA / SC52-11YWA
 SA52-11GWA / SC52-11GWA

Features

- 0.52 INCH DIGIT HEIGHT.
- EXCELLENT CHARACTER APPEARANCE.
- EASY MOUNTING ON P.C. BOARDS OR SOCKETS.
- I.C. COMPATIBLE.
- MECHANICALLY RUGGED.
- STANDARD : GRAY FACE, WHITE SEGMENT.

Description

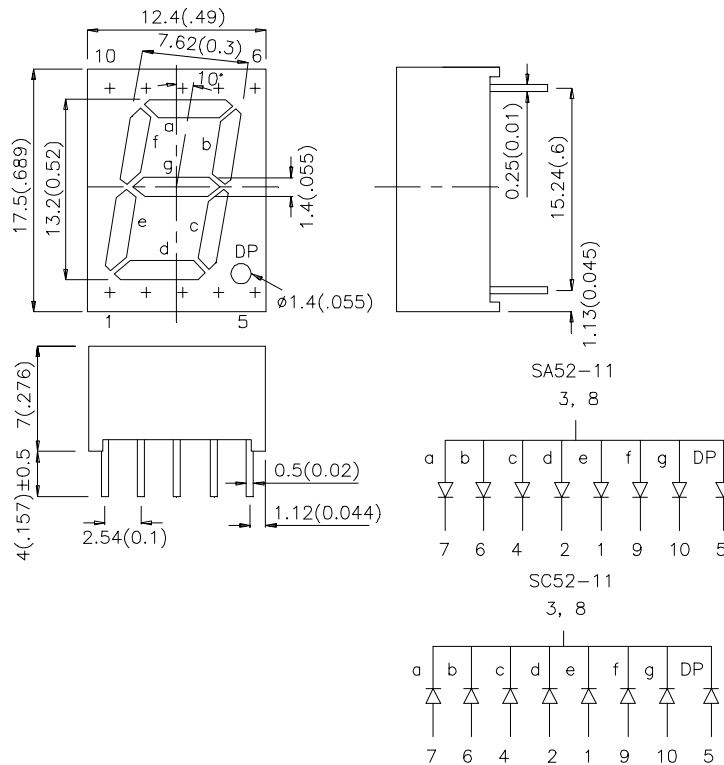
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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

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

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

Package Dimensions & Internal Circuit Diagram



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. | |
| SA52-11EWA | HIGH EFFICIENCY RED (GaAsP/GaP) | WHITE DIFFUSED | 1900 | 6400 | Common Anode, Rt. Hand Decimal |
| SC52-11EWA | | | | | Common Cathode, Rt. Hand Decimal |
| SA52-11SRWA | SUPER BRIGHT RED (GaAlAs) | WHITE DIFFUSED | 8000 | 24000 | Common Anode, Rt. Hand Decimal |
| SC52-11SRWA | | | | | Common Cathode, Rt. Hand Decimal |
| SA52-11YWA | YELLOW (GaAsP/GaP) | WHITE DIFFUSED | 1900 | 4700 | Common Anode, Rt. Hand Decimal |
| SC52-11YWA | | | | | Common Cathode, Rt. Hand Decimal |
| SA52-11GWA | GREEN (GaP) | WHITE DIFFUSED | 3000 | 10500 | Common Anode, Rt. Hand Decimal |
| SC52-11GWA | | | | | Common Cathode, Rt. Hand Decimal |

Electrical / Optical Characteristics at T_A=25°C

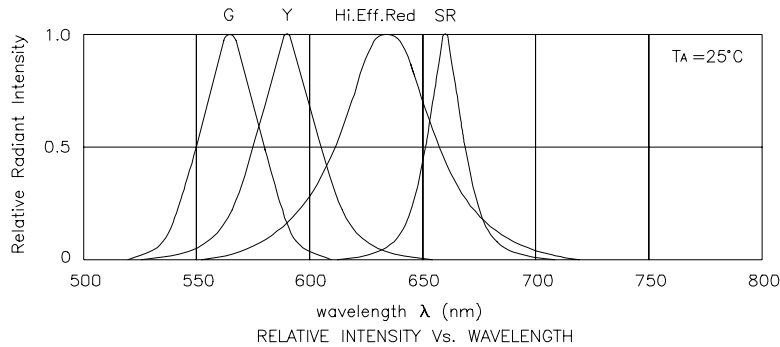
| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|-----------------------|--------------------------|--|---------------------------|--------------------------|-------|---------------------------|
| λ_{peak} | Peak Wavelength | High Efficiency Red Super Bright Red Yellow Green | 627 660 590 565 | | nm | I _F =20mA |
| λ_D | Dominant Wavelength | High Efficiency Red Super Bright Red Yellow Green | 625 640 588 568 | | nm | I _F =20mA |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | High Efficiency Red Super Bright Red Yellow Green | 45 20 35 30 | | nm | I _F =20mA |
| C | Capacitance | High Efficiency Red Super Bright Red Yellow Green | 15 45 20 15 | | pF | V _F =0V;f=1MHz |
| V _F | Forward Voltage | High Efficiency Red Super Bright Red Yellow Green | 2.0 1.85 2.1 2.2 | 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 $T_A=25^\circ\text{C}$

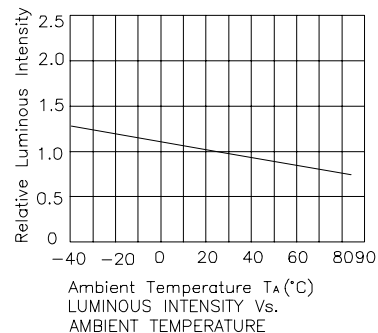
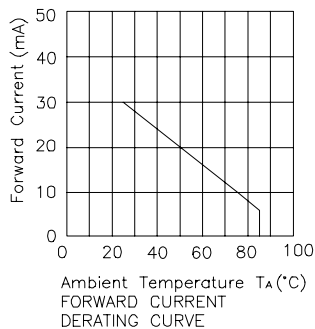
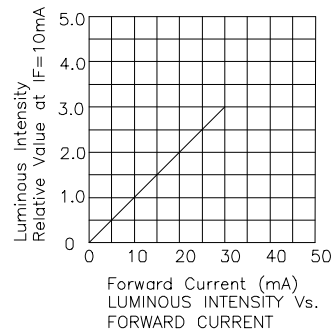
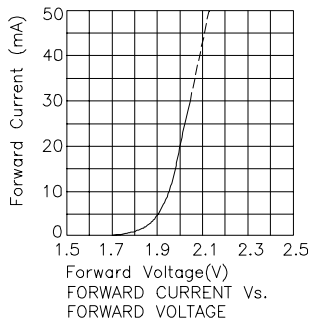
| Parameter | High Efficiency Red | Super Bright Red | Yellow | Green | Units |
|-------------------------------|---------------------|------------------|--------|-------|-------|
| Power dissipation | 105 | 100 | 105 | 105 | mW |
| DC Forward Current | 30 | 30 | 30 | 25 | mA |
| Peak Forward Current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

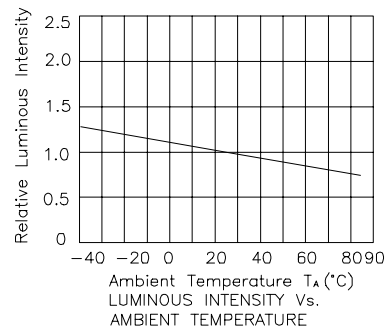
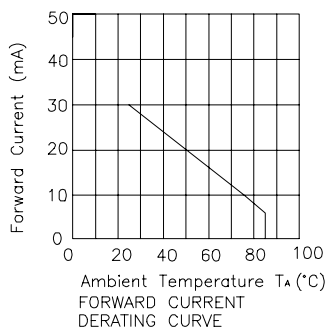
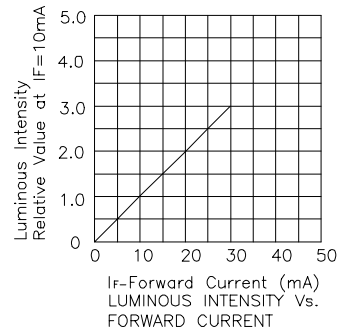
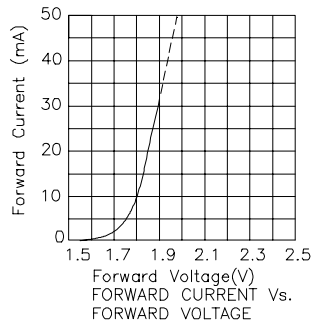
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2mm below package base.



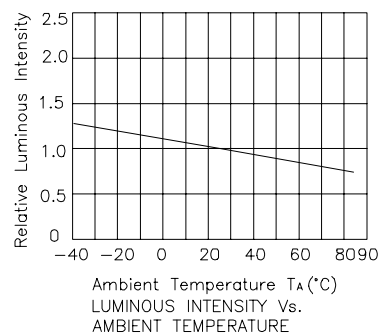
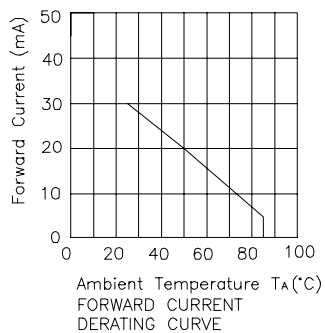
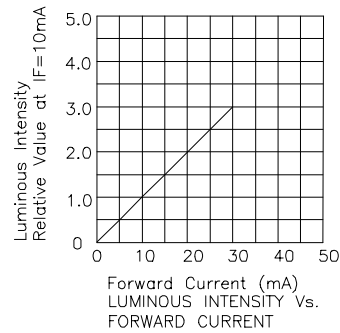
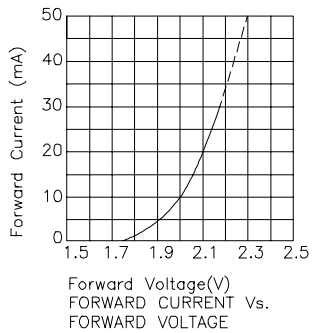
High Efficiency Red



Super Bright Red



Yellow



Green

