

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.

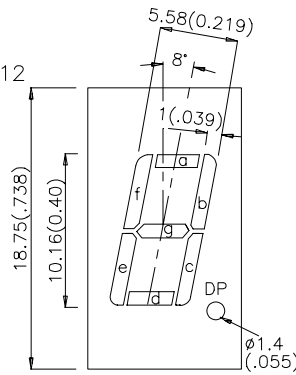
The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

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

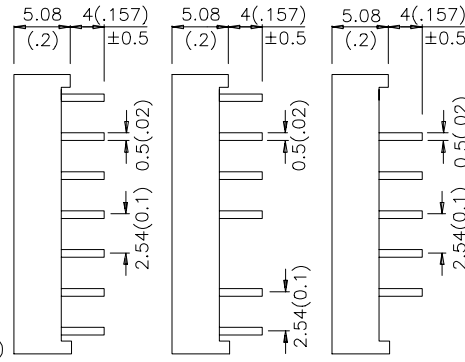
The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

Package Dimensions & Internal Circuit Diagram

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



A.B.C FRONT VIEW



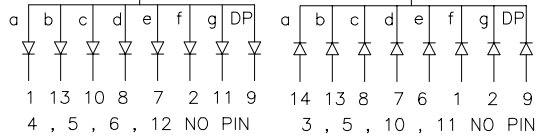
A SIDE VIEW B SIDE VIEW C SIDE VIEW

SA04-11

SC04-11

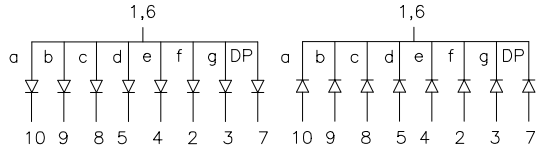
3,14

4,12



SA04-12

SC04-12



END VIEW

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

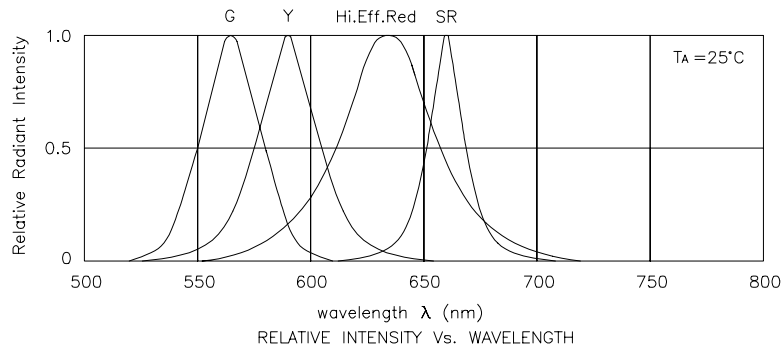
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	High Efficiency Red Green Yellow Super Bright Red	627 565 590 660		nm	I _F =20mA
λ_D	Dominate Wavelength	High Efficiency Red Green Yellow Super Bright Red	625 568 588 640		nm	I _F =20mA
$\Delta\lambda_{1/2}$	Spectral Line 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 $T_A=25^\circ\text{C}$

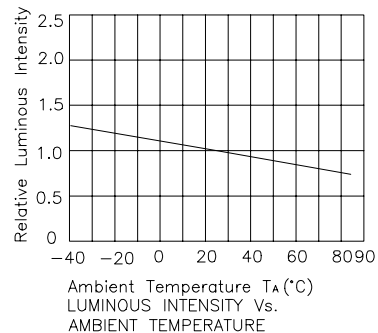
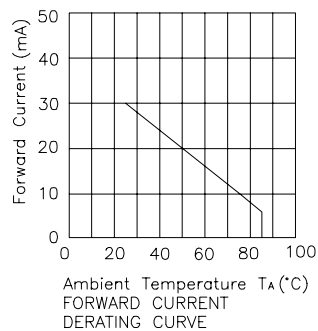
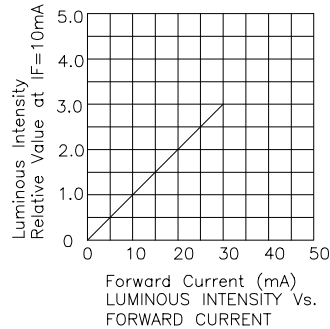
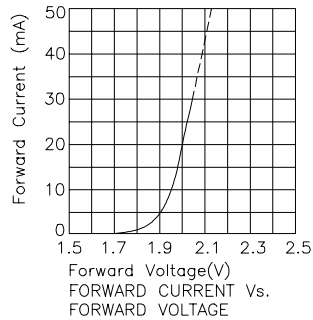
Parameter	High Efficiency Red	Green	Yellow	Super Bright Red	Units
Power dissipation	105	105	105	100	mW
DC Forward Current	30	25	30	30	mA
Peak Forward Current [1]	160	140	140	155	mA
Reverse Voltage	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C				
Lead Solder Temperature [2]	260°C For 5 Seconds				

Notes:

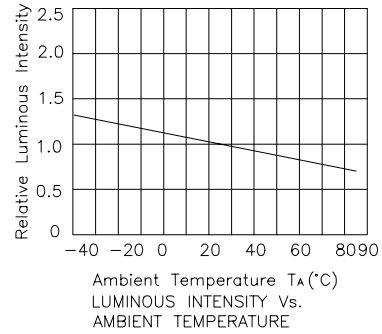
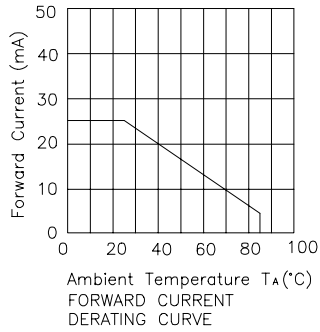
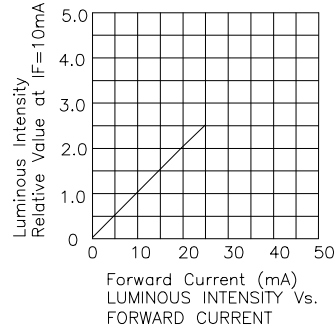
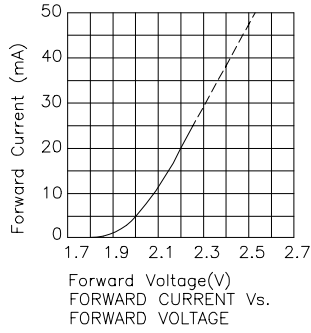
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2mm below package base.



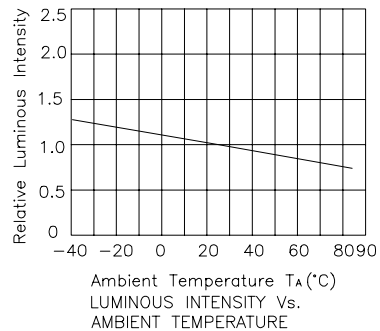
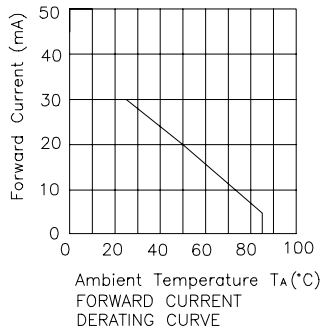
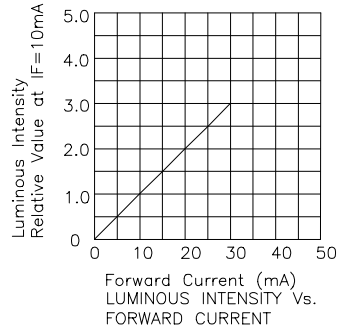
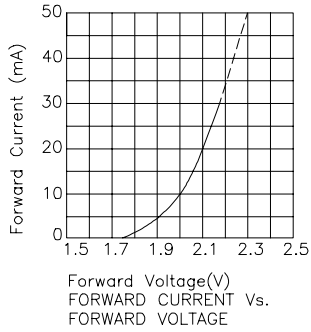
High Efficiency Red



Green



Yellow



Super Bright Red

