

SA56-11EWA/SRWA/YWA/GWA  
 SC56-11EWA/SRWA/YWA/GWA  
 SA56-21EWA/SRWA/YWA/GWA  
 SC56-21EWA/SRWA/YWA/GWA

### Features

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

### Description

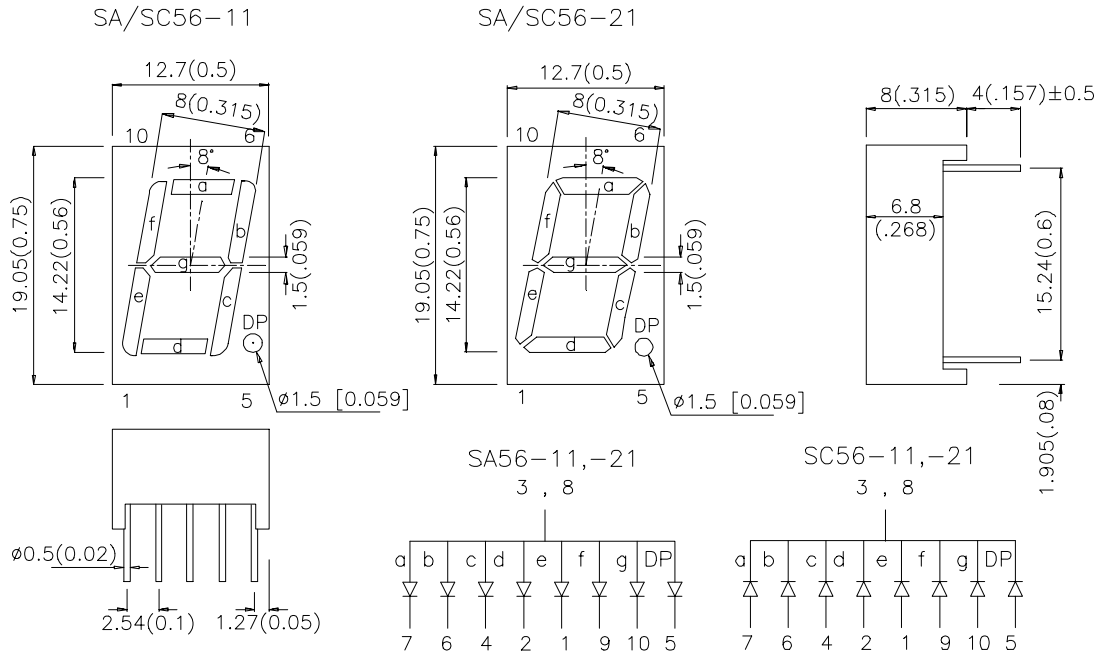
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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.	
SA56-11EWA	HIGH EFFICIENCY RED (GaAsP/GaP)	WHITE DIFFUSED	1900	6400	Common Anode, Rt. Hand Decimal
SA56-21EWA					Common Cathode, Rt. Hand Decimal
SC56-11EWA					
SC56-21EWA					
SA56-11SRWA	SUPER BRIGHT RED (GaAlAs)	WHITE DIFFUSED	8000	24000	Common Anode, Rt. Hand Decimal
SA56-21SRWA					Common Cathode, Rt. Hand Decimal
SC56-11SRWA					
SC56-21SRWA					
SA56-11YWA	YELLOW (GaAsP/GaP)	WHITE DIFFUSED	1900	4700	Common Anode, Rt. Hand Decimal
SA56-21YWA					Common Cathode, Rt. Hand Decimal
SC56-11YWA					
SC56-21YWA					
SA56-11GWA	GREEN (GaP)	WHITE DIFFUSED	3000	10500	Common Anode, Rt. Hand Decimal
SA56-21GWA					Common Cathode, Rt. Hand Decimal
SC56-11GWA					
SC56-21GWA					

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

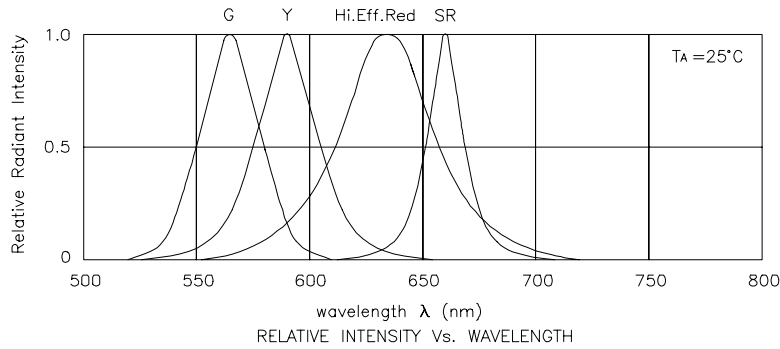
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{peak}$	Peak Wavelength	High Efficiency Red Super Bright Red Yellow Green	627 660 590 565		nm	I <sub>F</sub> =20mA
$\lambda_D$	Dominant Wavelength	High Efficiency Red Super Bright Red Yellow Green	625 640 588 568		nm	I <sub>F</sub> =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	High Efficiency Red Super Bright Red Yellow Green	45 20 35 30		nm	I <sub>F</sub> =20mA
C	Capacitance	High Efficiency Red Super Bright Red Yellow Green	15 45 20 15		pF	V <sub>F</sub> =0V;f=1MHz
V <sub>F</sub>	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 <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	All		10	uA	V <sub>R</sub> = 5V

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

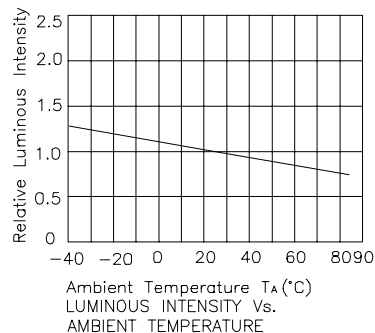
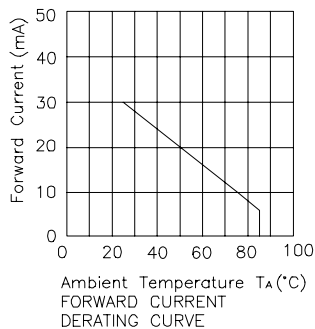
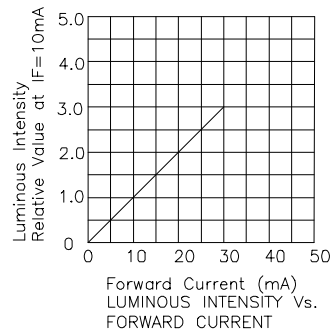
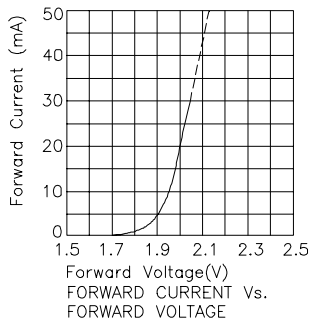
Parameter	High Efficiency Red	Super Bright Red	Yellow	Green	Units
Power dissipation	105	100	105	105	mW
DC Forward Current	30	30	30	25	mA
Peak Forward Current [1]	160	155	140	140	mA
Reverse Voltage	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C				
Lead Solder Temperature [2]	260°C For 5 Seconds				

**Notes:**

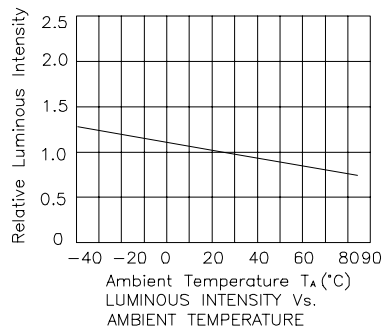
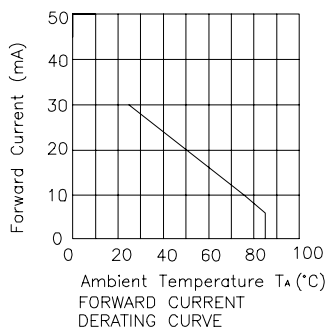
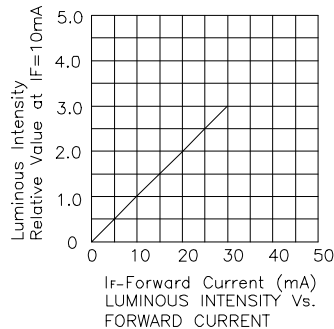
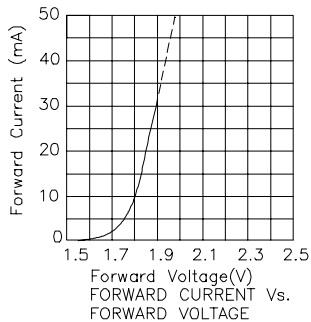
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 2mm below package base.



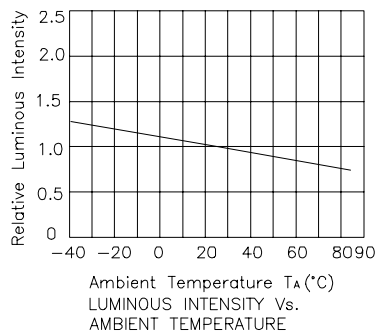
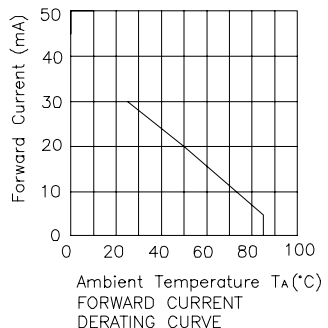
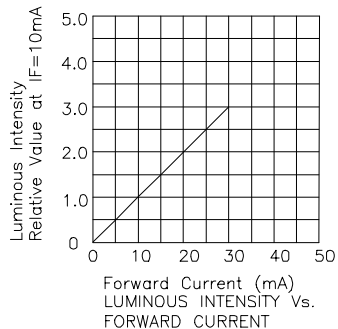
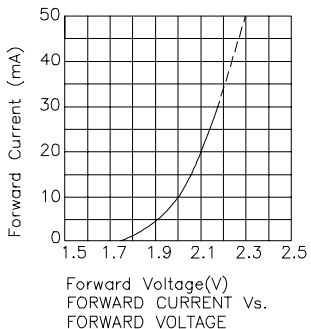
## High Efficiency Red



## Super Bright Red



## Yellow



## Green

