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

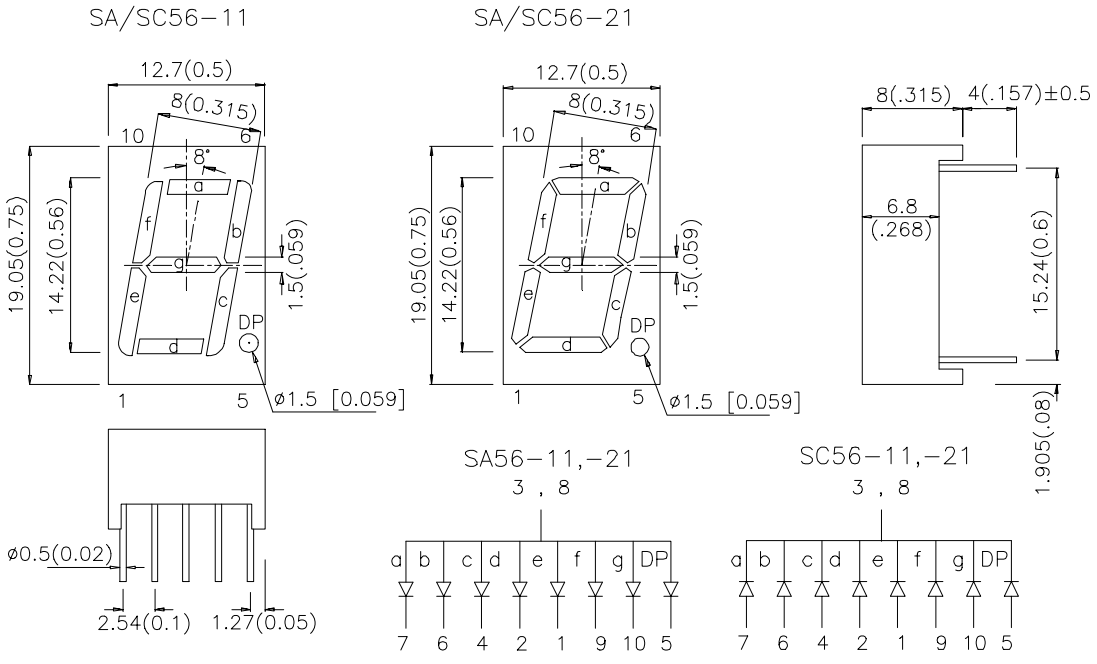
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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 ±0.25(0.01")unless otherwise noted.
2. Specifications are subject to change whitout 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					
SC56-11EWA					Common Cathode, Rt. Hand Decimal
SC56-21EWA					
SA56-11SRWA	SUPER BRIGHT RED (GaAlAs)	WHITE DIFFUSED	8000	24000	Common Anode, Rt. Hand Decimal
SA56-21SRWA					
SC56-11SRWA					Common Cathode, Rt. Hand Decimal
SC56-21SRWA					
SA56-11YWA	YELLOW (GaAsP/GaP)	WHITE DIFFUSED	1900	4700	Common Anode, Rt. Hand Decimal
SA56-21YWA					
SC56-11YWA					Common Cathode, Rt. Hand Decimal
SC56-21YWA					
SA56-11GWA	GREEN (GaP)	WHITE DIFFUSED	3000	10500	Common Anode, Rt. Hand Decimal
SA56-21GWA					
SC56-11GWA					Common Cathode, Rt. Hand Decimal
SC56-21GWA					

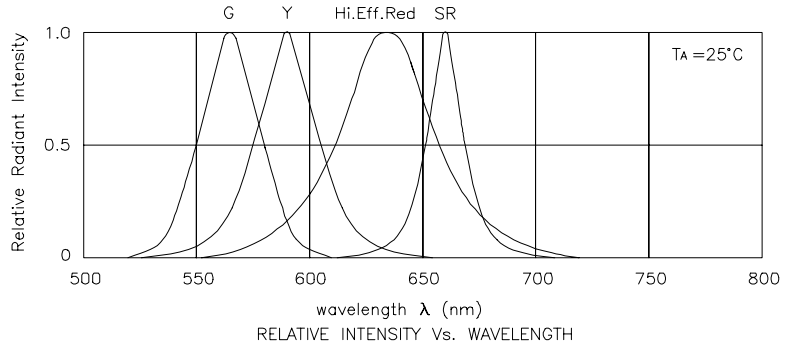
Electrical / Optical Characteristics at T_A=25ºC

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red Super Bright Red Yellow Green	627 660 590 565		nm	I_F=20mA
λ D	Dominate Wavelength	High Efficiency Red Super Bright Red Yellow Green	625 640 588 568		nm	I_F=20mA
Δλ1/2	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=25ºC

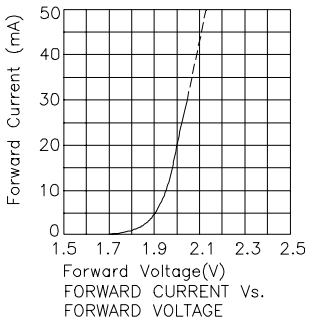
Parameter	High Efficiency Red	Super Bright Red	Yellow	Green	Units
Power dissipation	105	100	105	105	mW
DC Forward Current	30	30	30	25	mA
Peak Forward Current [1]	160	155	140	140	mA
Reverse Voltage	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C				
Lead Solder Temperature [2]	260°C For 5 Seconds				

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

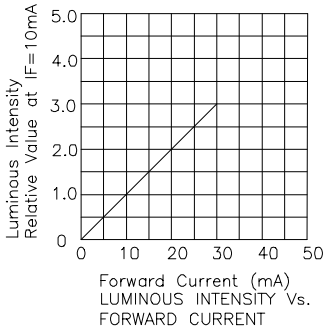


RELATIVE INTENSITY Vs. WAVELENGTH

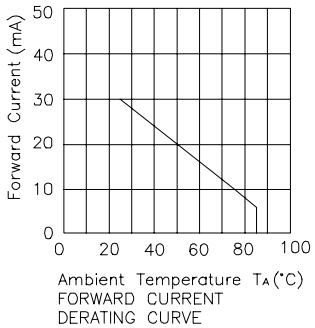
High Efficiency Red



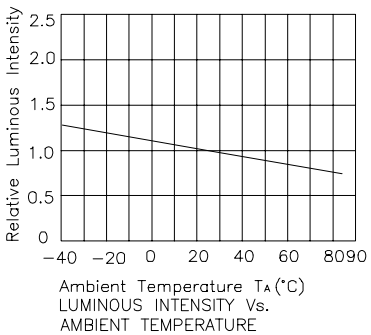
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

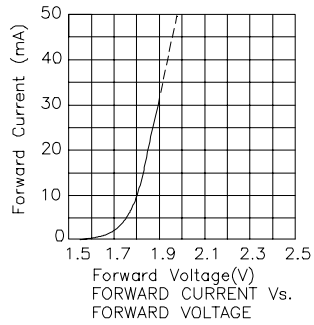


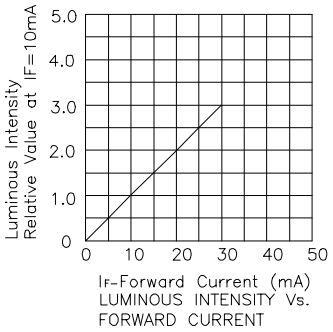
FORWARD CURRENT DERATING CURVE

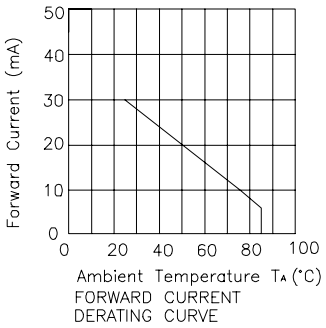


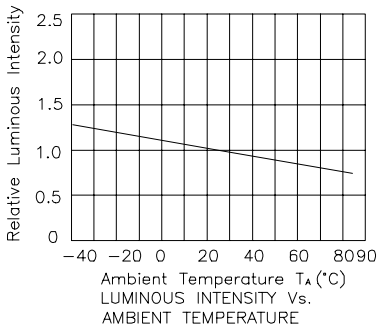
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

Super Bright Red

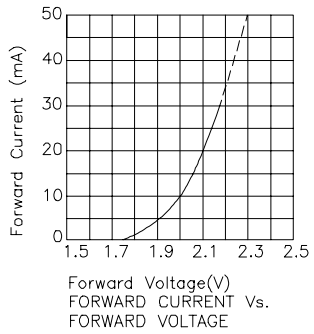


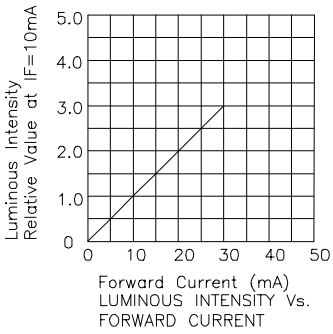


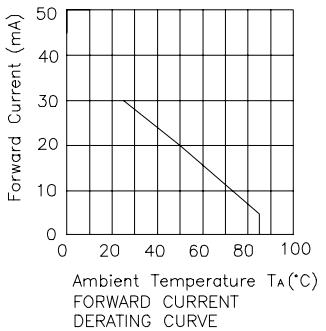


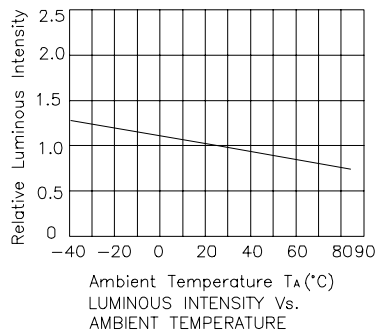


Yellow

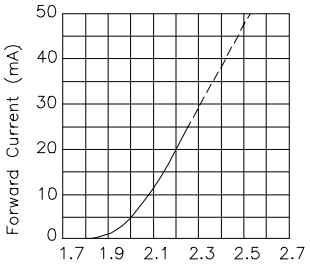




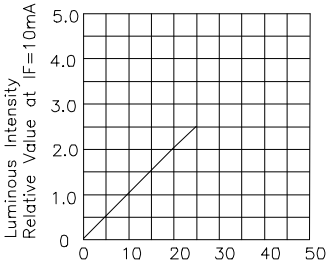




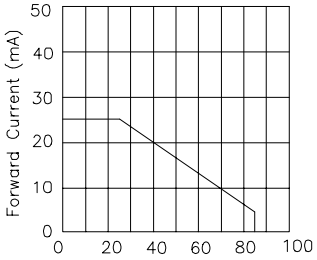
Green



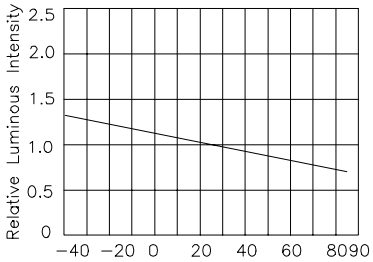
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE