

W819SRSGW/CC

SUEPR BRIGHT RED

SUPER BRIGHT GREEN

Features

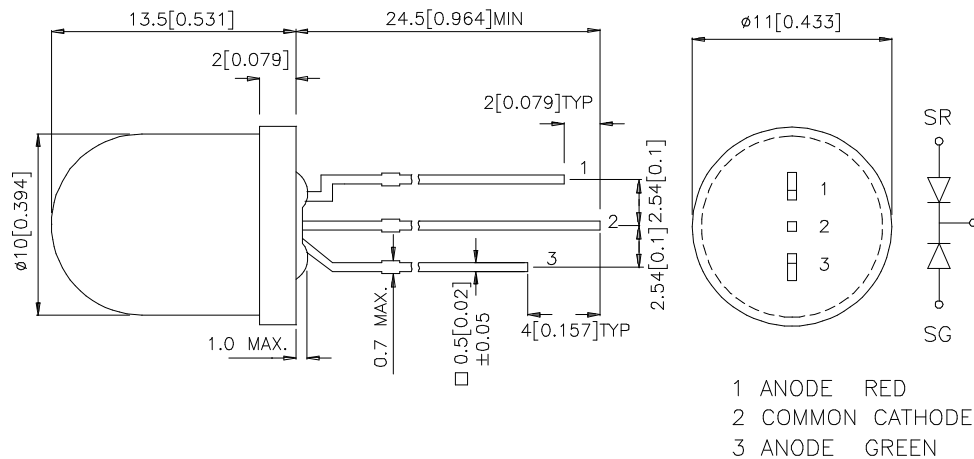
- UNIFORM LIGHT OUTPUT.
- LOW POWER CONSUMPTION.
- 3 LEADS WITH ONE COMMON CATHODE LEAD.
- I.C. COMPATIBLE.
- LONG LIFE - SOLID STATE RELIABILITY.

Description

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

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

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25 (0.01")$ unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	2θ1/2
W819SRSGW/CC	SUPER BRIGHT RED (GaAlAs)	WHITE DIFFUSED	110	200	50°
	SUPER BRIGHT GREEN (GaP)		36	50	

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at T_A=25°C

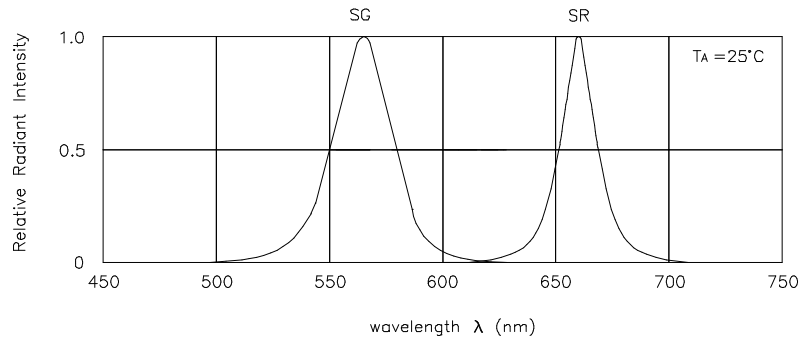
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ _{peak}	Peak Wavelength	Super Bright Red Super Bright Green	660 565		nm	I _F =20mA
λ _D	Dominate Wavelength	Super Bright Red Super Bright Green	640 568		nm	I _F =20mA
Δλ _{1/2}	Spectral Line Half-width	Super Bright Red Super Bright Green	20 30		nm	I _F =20mA
C	Capacitance	Super Bright Red Super Bright Green	45 15		pF	V _F =0V;f=1MHz
V _F	Forward Voltage	Super Bright Red Super Bright Green	1.85 2.2	2.5 2.5	V	I _F =20mA
I _R	Reverse Current	All		10	μA	V _R = 5V

Absolute Maximum Ratings at T_A=25°C

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

Notes:

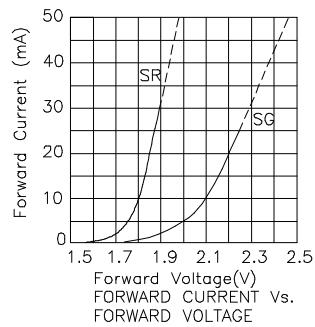
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 2mm below package base.



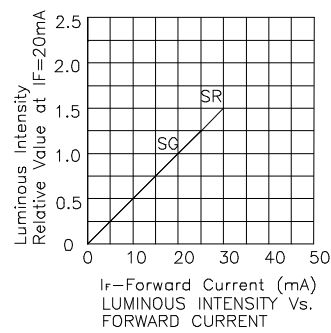
RELATIVE INTENSITY Vs. WAVELENGTH

Super Bright Red / Super Bright Green

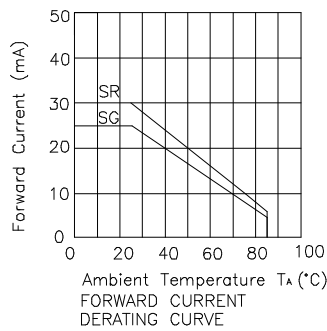
W819SRSGW/CC



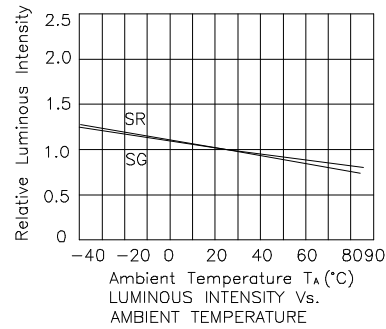
FORWARD CURRENT Vs. FORWARD VOLTAGE



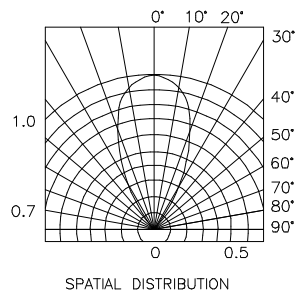
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION