

PRELIMINARY SPEC

Part Number: L-972A11PWASRC

WHITE
SUPER BRIGHT RED



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Features

- UNIFORM LIGHT OUTPUT.
- LOW POWER CONSUMPTION.
- I.C. COMPATIBLE.
- LONG LIFE - SOLID STATE RELIABILITY.
- RoHS COMPLIANT.

Description

The source color devices are made with InGaN on SiC Light Emitting Diode.

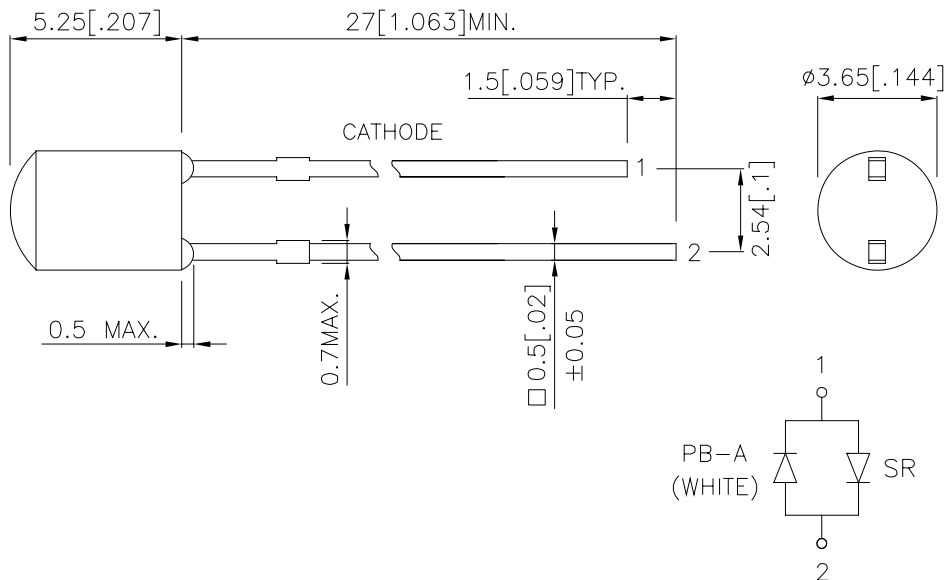
The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

Static electricity and surge damage the LEDs.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

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 leads emerge from the package.
4. Specifications are subject to change without notice.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2 θ 1/2
L-972A11PWASRC	WHITE (InGaN)	WATER CLEAR	180	320	120°
	SUPER BRIGHT RED (GaAlAs)		70	150	

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous Intensity / Luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C [PB-A (WHITE)]

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
V _F [2]	Forward Voltage	White	3.2	4.0	V	I _F =20mA
X	Chromaticity Coordinates	White	0.31			
Y			0.31			
C	Capacitance	White	100		pF	V _F =0V;f=1MHz

Electrical / Optical Characteristics at TA=25°C (SR)

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ _{peak}	Peak Wavelength	Super Bright Red	660		nm	I _F =20mA
λ _D [1]	Dominant Wavelength	Super Bright Red	640		nm	I _F =20mA
Δλ _{1/2}	Spectral Line Half-width	Super Bright Red	20		nm	I _F =20mA
C	Capacitance	Super Bright Red	45		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Super Bright Red	1.85	2.5	V	I _F =20mA

Notes:

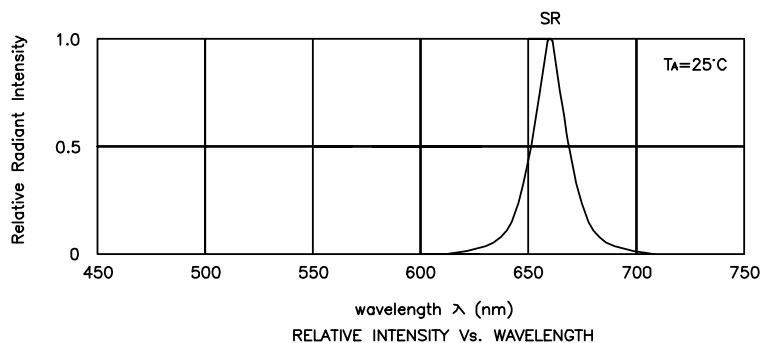
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

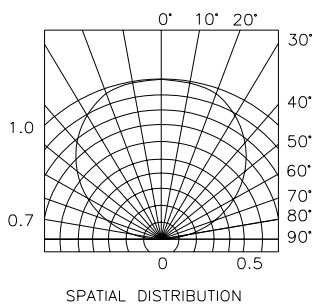
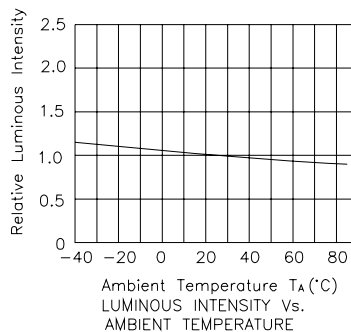
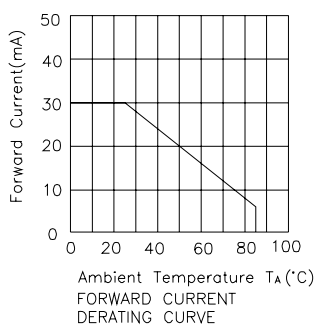
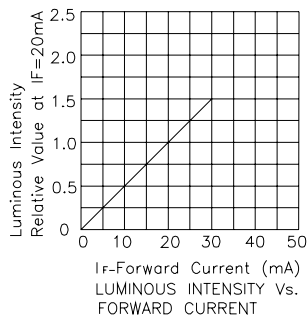
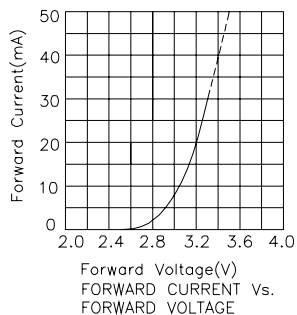
Parameter	White	Super Bright Red	Units
Power dissipation	120	75	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	100	155	mA
Operating / storage Temperature	-40°C To +85°C		
Lead Solder Temperature [2]	260°C For 3 Seconds		
Lead Solder Temperature [3]	260°C For 5 Seconds		

Notes:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 2mm below package base.
3. 5mm below package base.

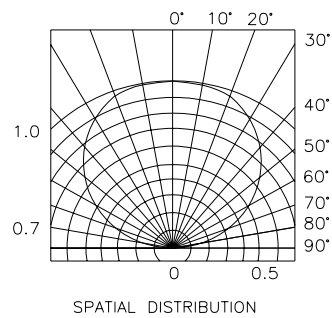
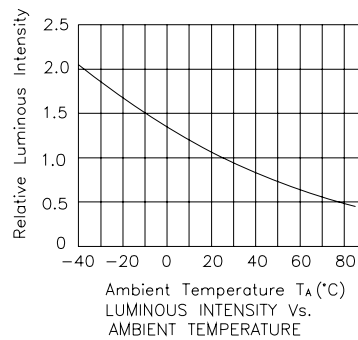
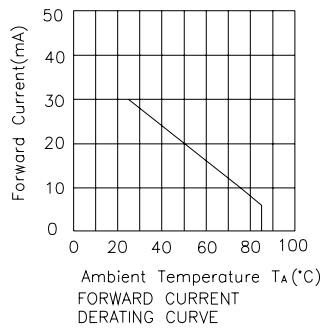
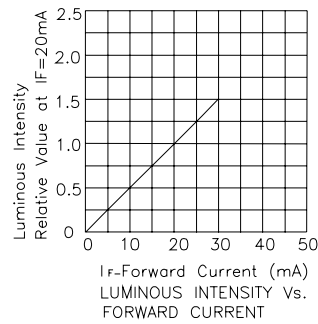
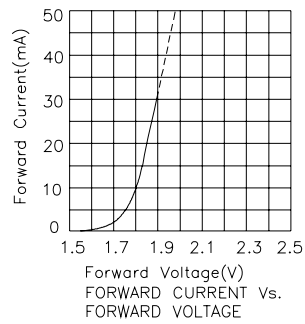


L-972A11PWASRC White



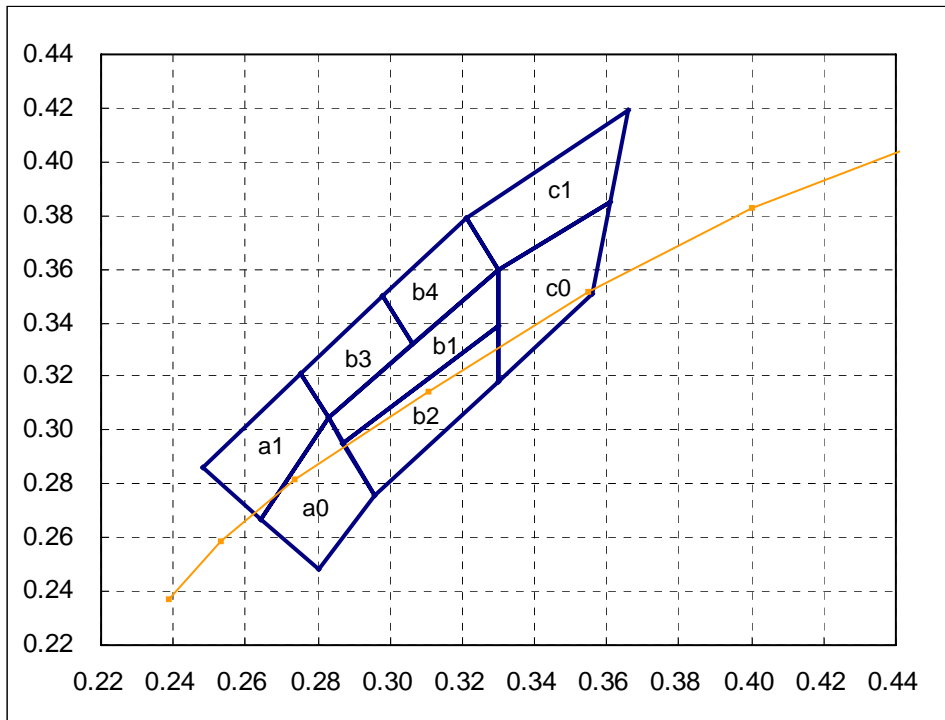
Kingbright

Super Bright Red



L-972A11PWASRC

White CIE



a0					a1				
X	0.264	0.283	0.296	0.280	X	0.248	0.275	0.283	0.264
Y	0.267	0.305	0.276	0.248	Y	0.286	0.321	0.305	0.267
Reference CCT: 14000~9000k					Reference CCT: 14000~9000k				
b1					b2				
X	0.283	0.330	0.330	0.287	X	0.287	0.330	0.330	0.296
Y	0.305	0.360	0.339	0.295	Y	0.295	0.339	0.318	0.276
Reference CCT: 9000~5600k					Reference CCT: 9000~5600k				
b3					b4				
X	0.275	0.298	0.306	0.283	X	0.298	0.321	0.330	0.306
Y	0.321	0.350	0.332	0.305	Y	0.350	0.379	0.360	0.332
Reference CCT: 9000~7000k					Reference CCT: 7600~5600k				
c0					c1				
X	0.330	0.361	0.356	0.330	X	0.321	0.366	0.361	0.330
Y	0.360	0.385	0.351	0.318	Y	0.379	0.419	0.385	0.360
Reference CCT: 5600~4600k					Reference CCT: 6000~4600k				