

### Features

- HYPER BRIGHTNESS.
- OUTSTANDING MATERIAL EFFICIENCY.
- RELIABLE AND RUGGED.
- I.C. COMPATIBLE.

L934SURC HYPER RED

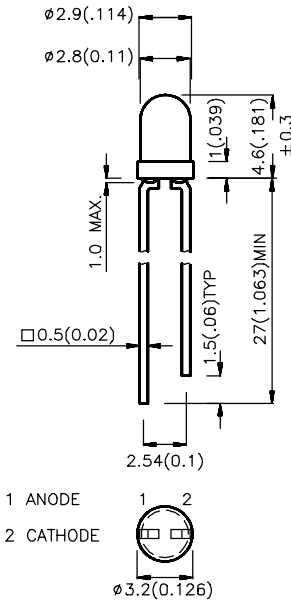
L934SURC/E HYPER RED

### Package Dimensions

### Description

The Hyper Red (SUR) source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

The Hyper Red (SUR/E)source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.



### 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 subjected to change without notice.

### Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	2 $\theta$ 1/2
L934SURC	HYPER RED (InGaAlP)	WATER CLEAR	500	1300	50°
L934SURC/E	HYPER RED (InGaAlP)	WATER CLEAR	1000	1300	50°

### Note:

1.  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

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

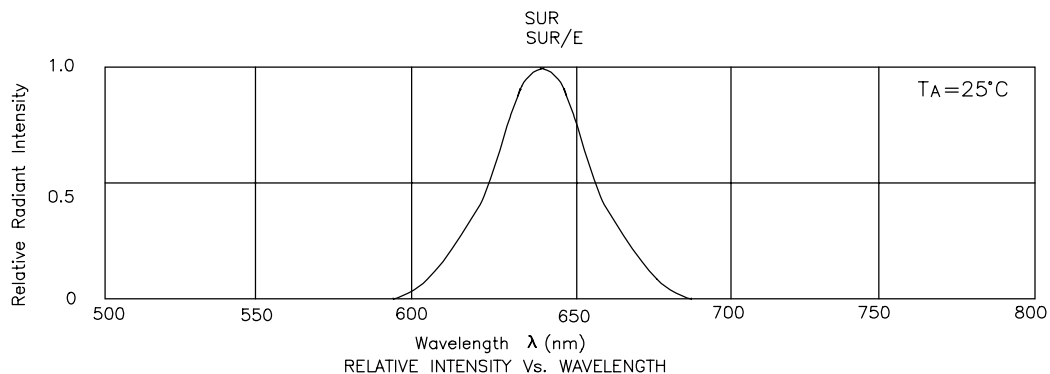
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{\text{peak}}$	Peak Wavelength	Hyper Red (SUR) Hyper Red (SUR/E)	640 640		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	Hyper Red (SUR) Hyper Red (SUR/E)	25 25		nm	IF=20mA
C	Capacitance	Hyper Red (SUR) Hyper Red (SUR/E)	35 30		pF	VR=0V;f=1MHz
V <sub>F</sub>	Forward Voltage	Hyper Red (SUR) Hyper Red (SUR/E)	2.0 2.45	2.2 2.6	V	IF=20mA
I <sub>R</sub>	Reverse Current	Hyper Red (SUR) Hyper Red (SUR/E)	10		uA	VR = 5V

## Absolute Maximum Ratings at T<sub>A</sub>=25°C

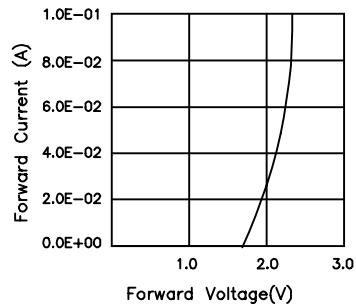
Parameter	Hyper Red (SUR)	Hyper Red (SUR/E)	Units
Power dissipation	170	120	mW
DC Forward Current	50	40	mA
Peak Forward Current [1]	150	150	mA
Reverse Voltage	5	5	V
Operating/Storage Temperature	-40°C To +85°C		
Lead Soldering Temperature [2]	260°C For 5 Seconds		

### Notes:

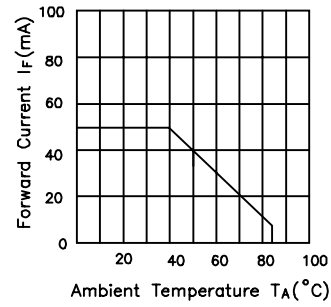
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



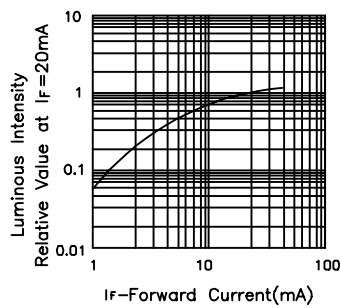
## Hyper Red L934SURC



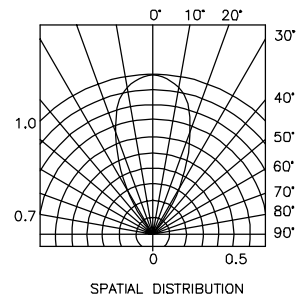
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT  
DERATING CURVE

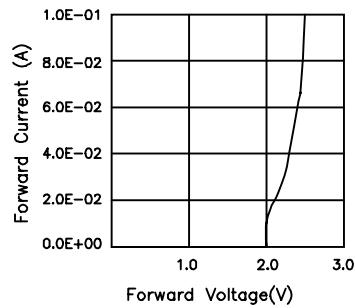


LUMINOUS INTENSITY Vs. FORWARD CURRENT

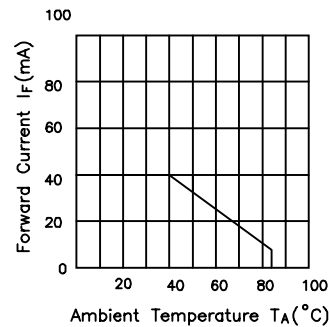


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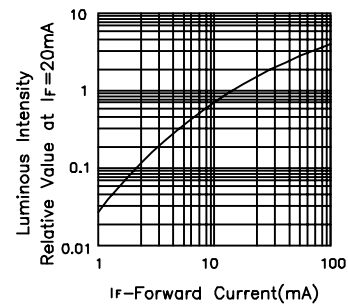
## Hyper Red L934SURC/E



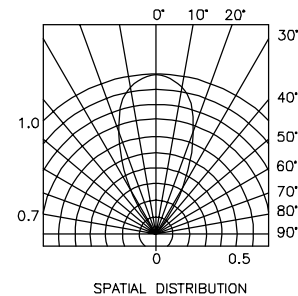
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT  
DERATING CURVE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION