

L1543SURC HYPER RED

L1543SURC/E HYPER RED

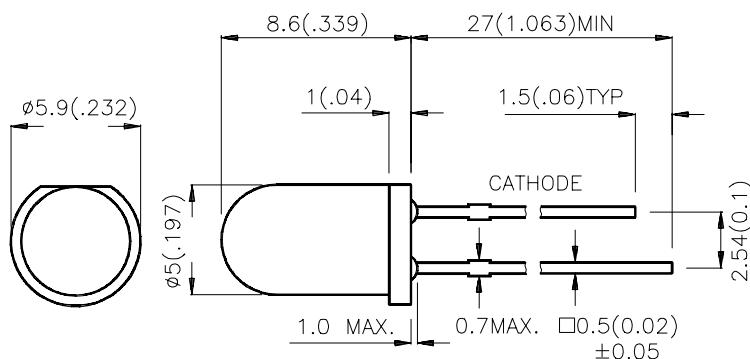
Features

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

Description

The Hyper Red source color devices are made with DH InGaAlP on GaAs substrate 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 θ1/2
			Min.	Typ.	
L1543SURC	HYPER RED (InGaAlP)	WATER CLEAR	400	700	50°
L1543SURC/E	HYPER RED (InGaAlP)	WATER CLEAR	700	1300	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

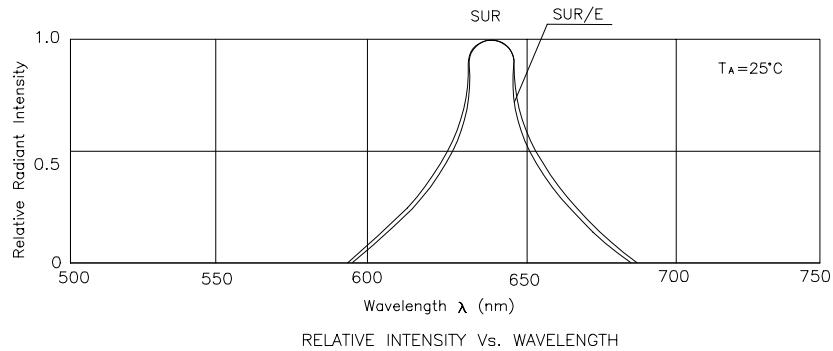
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ _{peak}	Peak Wavelength	Hyper Red (SUR) Hyper Red (SUR/E)	640 640		nm	IF=20mA
λ D	Dominate Wavelength	Hyper Red (SUR) Hyper Red (SUR/E)	628 630		nm	IF=20mA
Δλ1/2	Spectral Line Halfwidth	Hyper Red (SUR) Hyper Red (SUR/E)	27 25		nm	IF=20mA
C	Capacitance	Hyper Red (SUR) Hyper Red (SUR/E)	45 45		pF	VR=0V;f=1MHz
V _F	Forward Voltage	Hyper Red (SUR) Hyper Red (SUR/E)	1.9 1.9	2.5 2.5	V	IF=20mA
I _R	Reverse Current	All		10	uA	VR = 5V

Absolute Maximum Ratings at T_A=25°C

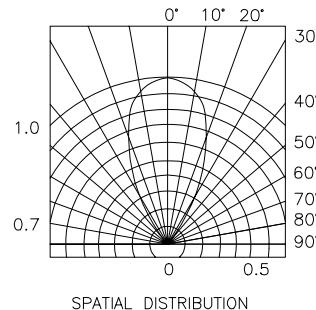
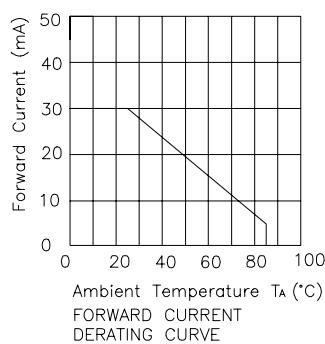
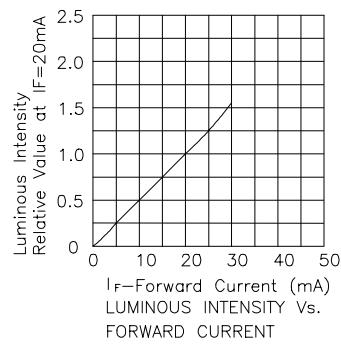
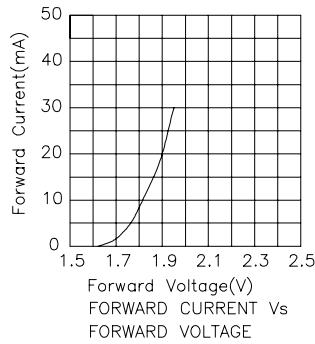
Parameter	Hyper Red (SUR)	Hyper Red (SUR/E)	Units
Power dissipation	170	150	mW
DC Forward Current	30	40	mA
Peak Forward Current [1]	185	200	mA
Reverse Voltage	5	5	V
Operating/Storage Temperature	-40°C To +85°C		
Lead Solder Temperature [2]	260°C For 5 Seconds		

Notes:

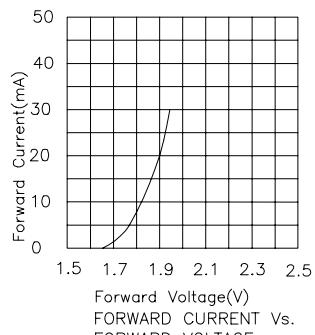
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



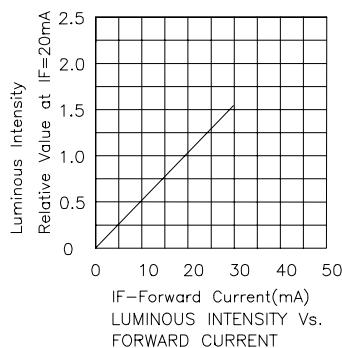
Hyper Red L1543SURC



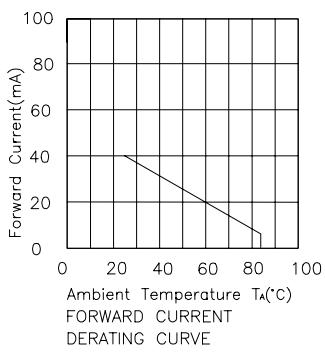
Hyper Red L1543SURC/E



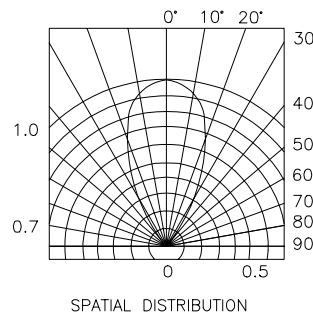
Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE



IF—Forward Current(mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



Ambient Temperature T_a (°C)
FORWARD CURRENT
DERATING CURVE



SPATIAL DISTRIBUTION