L1703SURC HYPER RED

L1703SURC/E HYPER RED

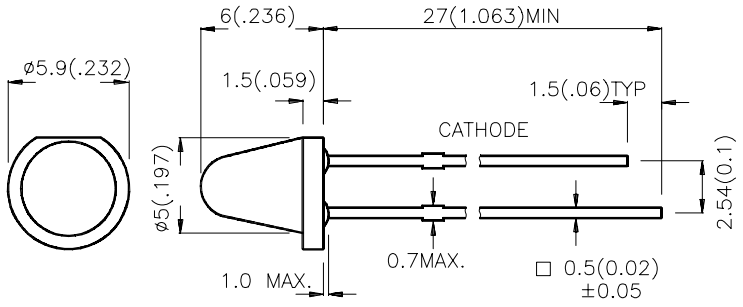
Features

- ●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 ±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
L1703SURC	HYPER RED (InGaAlP)	WATER CLEAR	300	700	50°
L1703SURC/E	HYPER RED (InGaAlP)		700	1000	50°

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

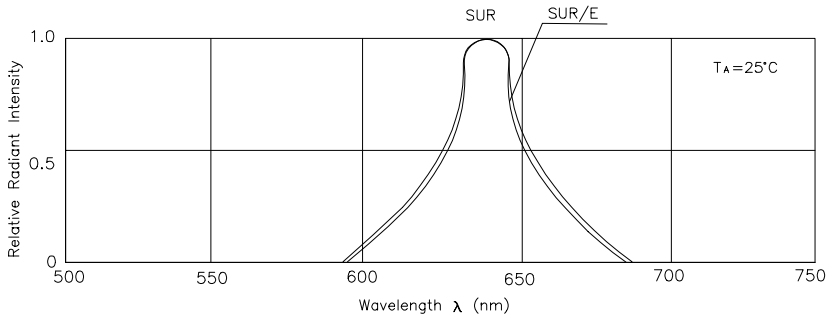
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	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

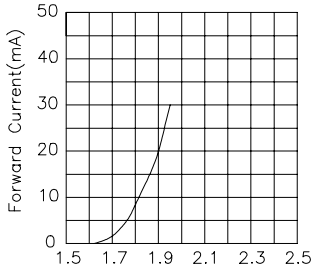
Parameter	Hyper Red (SUR)	Hyper Red (SUR/E)	Units
Power dissipation	170	150	mW
DC Forward Current	30	40	mA
Peak Forward Current [1]	185	200	mA
Reverse Voltage	5	5	V
Operating/Storage Temperature	-40°C To +85°C		
Lead Solder Temperature [2]	260°C For 5 Seconds		

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

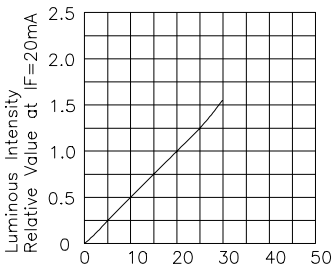


RELATIVE INTENSITY Vs. WAVELENGTH

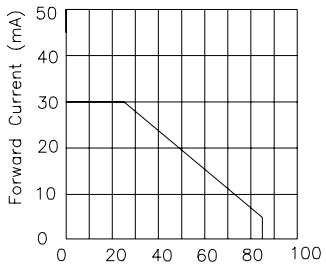
Hyper Red L1703SURC



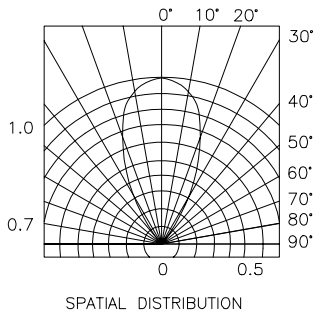
FORWARD CURRENT Vs
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

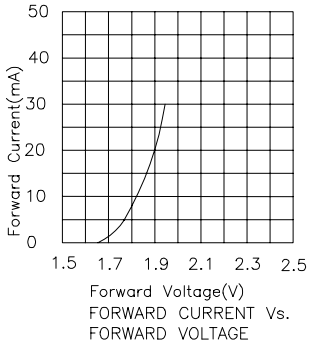


FORWARD CURRENT
DERATING CURVE

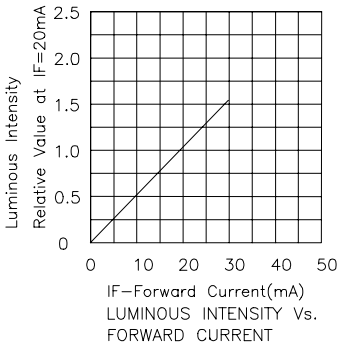


SPATIAL DISTRIBUTION

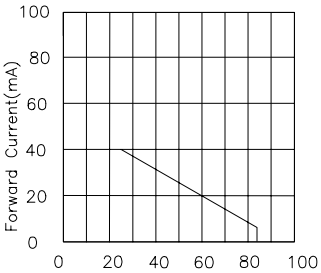
Hyper Red L1703SURC/E



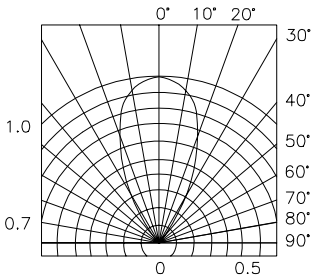
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



SPATIAL DISTRIBUTION