

## GHB-1104R-R

### Features

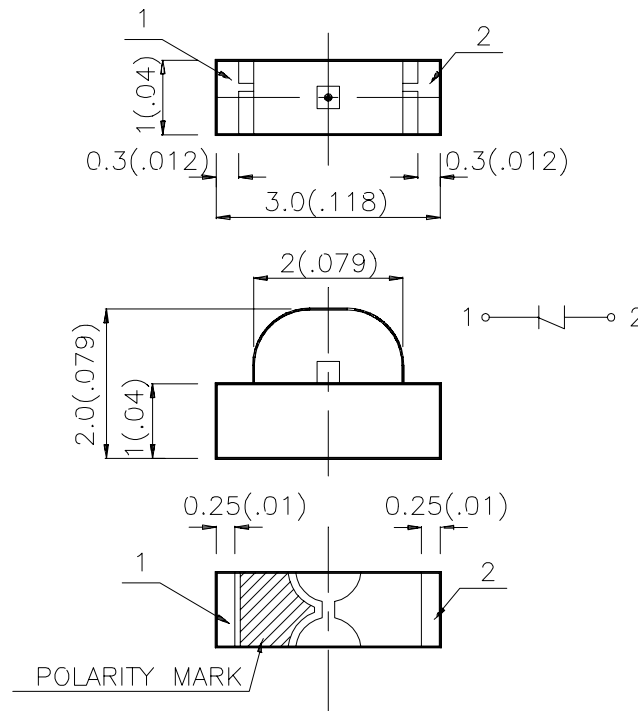
- ▲3.0mmx1.0mm SMT LED, 2.0mm THICKNESS.
- ▲LOW POWER CONSUMPTION.
- ▲WIDE VIEWING ANGLE.
- ▲IDEAL FOR BACKLIGHT AND INDICATOR.
- ▲VARIOUS COLORS AND LENS TYPES AVAILABLE.
- ▲PACKAGE : 2000PCS / REEL.

### Package Dimensions

### Description

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

### 3.0x1.0 mm SMD CHIP LED LAMP



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is 0.15(0.006") unless otherwise noted.
3. Specifications are subject to change without notice.

## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	
GHB-1104R-R	HYPER RED (InGaAlP)	WATERCLEAR	50	120	120°

Note:

1. 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

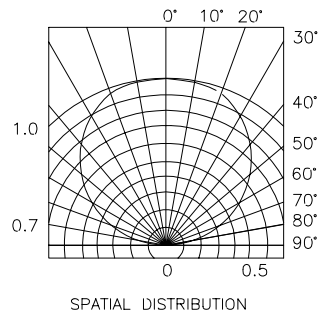
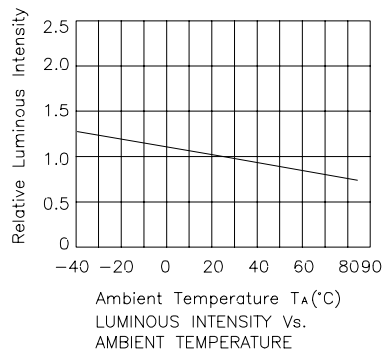
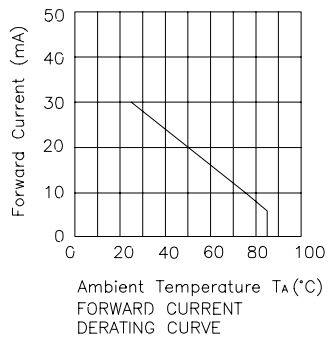
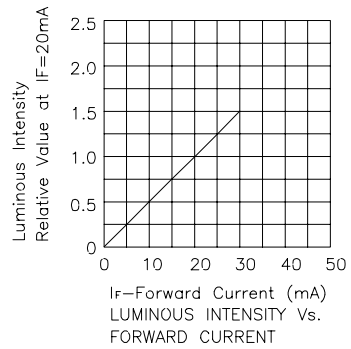
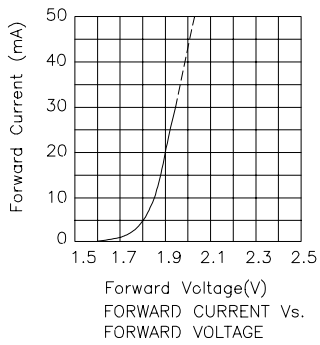
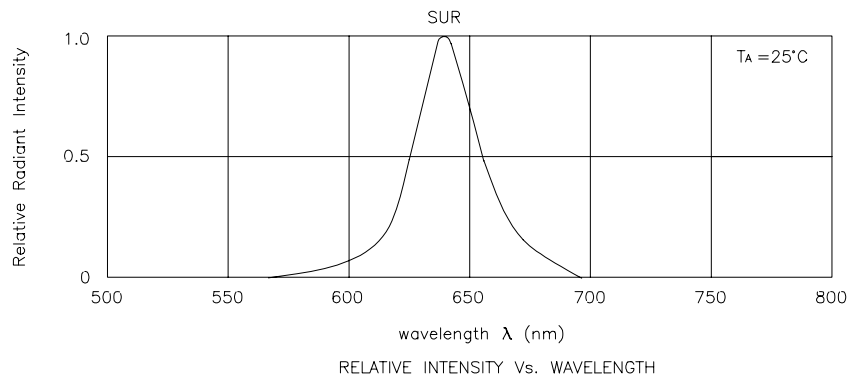
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
peak	Peak Wavelength	Hyper Red	640		nm	I <sub>F</sub> =20mA
D	Dominate Wavelength	Hyper Red	628		nm	I <sub>F</sub> =20mA
1/2	Spectral Line Half-width	Hyper Red	27		nm	I <sub>F</sub> =20mA
C	Capacitance	Hyper Red	45		pF	V <sub>F</sub> =0V;f=1MHz
V <sub>F</sub>	Forward Voltage	Hyper Red	1.9	2.5	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	Hyper Red		10	uA	V <sub>R</sub> = 5V

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

Parameter	Hyper Red	Units
Power dissipation	170	mW
DC Forward Current	30	mA
Peak Forward Current [1]	185	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40 C To +85 C	

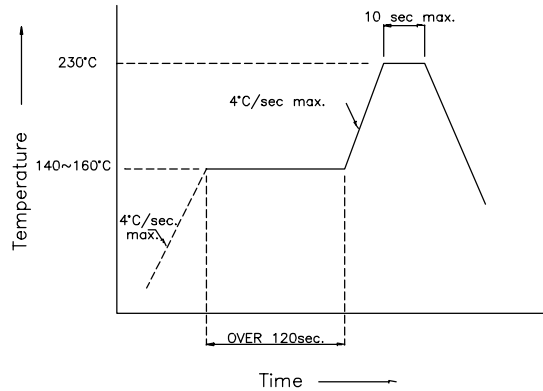
Note:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.

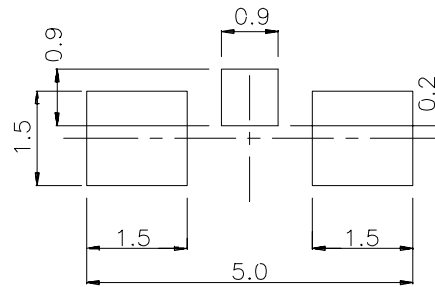


### SMT Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process.



### Recommended Soldering Pattern (Units : mm)



### Tape Specifications (Units : mm)

